



CUADERNILLO DE PREGUNTAS



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Segunda edición**

**Ciencias naturales
Grado 5°**

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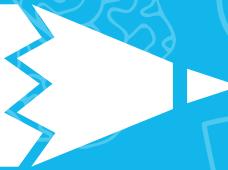
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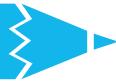
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GRADO 5°





GRADO 5° - PRUEBA DE CIENCIAS NATURALES

• Pregunta 1.

Durante el siglo XVII, un médico fabricó un microscopio con el cual descubrió en muestras de agua algunos seres vivos que fueron llamados animales unicelulares. Con el desarrollo de microscopios más potentes en el siglo XX, se logró caracterizar estos seres vivos y se cambió su ubicación a la de un reino independiente, reino protista. Según esta información, se puede afirmar que

- A. los protistas nunca fueron considerados animales unicelulares.
- B. la nueva tecnología permitió diferenciar estos seres vivos de los demás.
- C. el origen de nuevos seres vivos depende del uso del microscopio.
- D. la clasificación de los seres vivos nunca ha cambiado desde el siglo XVII.

• Estructura

Competencia	Indagar
Componente	Entorno vivo
Afirmación	Comprender que a partir de la investigación científica se construyen explicaciones sobre el mundo natural.
Nivel de desempeño	Avanzado
Respuesta Correcta	B

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	16.8%	32.1%	24.6%	23.9%	2.5%	974
Antioquia	17.0%	39.3%	20.1%	22.1%	1.4%	29320
Apartadó	15.6%	35.4%	23.5%	23.4%	2.1%	1767
Arauca	16.7%	38.9%	21.4%	22.0%	1.0%	2669
Armenia	16.4%	42.7%	20.6%	19.2%	1.0%	2579
Atlántico	16.2%	34.8%	22.3%	24.1%	2.5%	5983
Barrancabermeja	16.9%	41.7%	20.3%	19.9%	1.2%	2505
Barranquilla	16.8%	39.3%	21.5%	21.1%	1.2%	12394
Bello	16.9%	43.2%	20.0%	18.8%	1.1%	3830
Bogotá, D.C.	17.0%	43.6%	19.9%	18.6%	1.0%	66797
Bolívar	16.6%	32.5%	23.2%	25.1%	2.5%	11151
Boyacá	17.7%	40.1%	21.9%	19.6%	0.7%	9254
Bucaramanga	17.3%	42.5%	20.8%	18.5%	0.9%	5292

Continúa en la siguiente página

GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Buenaventura	16.2%	36.1%	21.0%	23.9%	2.8%	4160
Buga	18.9%	39.5%	21.4%	18.8%	1.3%	1232
Caldas	15.6%	38.8%	22.4%	22.4%	0.9%	5744
Cali	16.4%	43.9%	19.8%	18.8%	1.2%	19610
Caquetá	16.0%	35.9%	23.7%	23.2%	1.2%	3244
Cartagena	17.9%	38.6%	20.0%	21.9%	1.7%	11445
Cartago	16.2%	38.6%	20.8%	23.6%	0.8%	1275
Casanare	16.9%	35.9%	23.8%	22.2%	1.2%	3063
Cauca	15.7%	37.7%	20.9%	23.7%	2.0%	12552
Cesar	16.8%	35.6%	21.7%	24.8%	1.1%	8453
Chocó	14.5%	33.9%	22.4%	26.4%	2.8%	3820
Chía	15.7%	48.2%	18.1%	17.2%	0.8%	1455
Ciénaga	15.7%	35.6%	21.3%	25.4%	2.1%	1510
Cundinamarca	16.3%	42.0%	21.1%	20.0%	0.7%	16383
Córdoba	16.8%	35.1%	23.0%	23.2%	1.8%	13345
Cúcuta	19.2%	37.8%	22.0%	20.2%	0.9%	7402
Dosquebradas	15.9%	42.8%	21.0%	19.2%	1.1%	1853
Duitama	15.7%	47.6%	18.8%	17.6%	0.4%	1405
Envigado	14.8%	52.9%	15.5%	16.0%	0.7%	1411
Facatativá	17.0%	44.1%	19.7%	18.7%	0.4%	1404
Florencia	16.0%	37.3%	21.7%	23.6%	1.4%	2079
Floridablanca	19.1%	42.6%	20.2%	17.4%	0.8%	2598
Fusagasugá	17.6%	40.7%	21.3%	19.6%	0.9%	1236
Girardot	19.3%	34.0%	21.4%	21.9%	3.4%	901
Girón	16.2%	40.9%	22.2%	20.0%	0.8%	1515
Guainía	18.4%	33.4%	20.5%	25.8%	2.0%	512
Guaviare	19.0%	34.7%	23.0%	21.8%	1.4%	920
Huila	15.9%	37.4%	24.0%	22.0%	0.7%	8188
Ibagué	16.5%	41.4%	21.9%	19.6%	0.7%	5529
Ipiales	18.2%	43.4%	19.7%	18.0%	0.8%	1480
Itagüí	16.3%	46.5%	19.8%	16.2%	1.2%	2031
Jamundí	18.1%	38.4%	21.1%	21.2%	1.3%	1116
La Guajira	15.3%	36.0%	21.2%	25.6%	1.9%	3927
Lorica	17.1%	35.6%	21.7%	23.9%	1.7%	1541
Magangué	16.5%	33.4%	23.6%	24.5%	2.0%	1660
Magdalena	16.0%	32.9%	21.6%	27.2%	2.3%	9135
Maicao	16.8%	33.8%	22.5%	24.6%	2.3%	2161
Malambo	16.8%	39.5%	18.3%	23.5%	1.9%	1287
Manizales	16.5%	45.3%	19.0%	18.5%	0.7%	3133
Medellín	16.9%	42.3%	20.3%	19.2%	1.3%	20627
Meta	17.8%	36.5%	22.2%	22.1%	1.4%	6020

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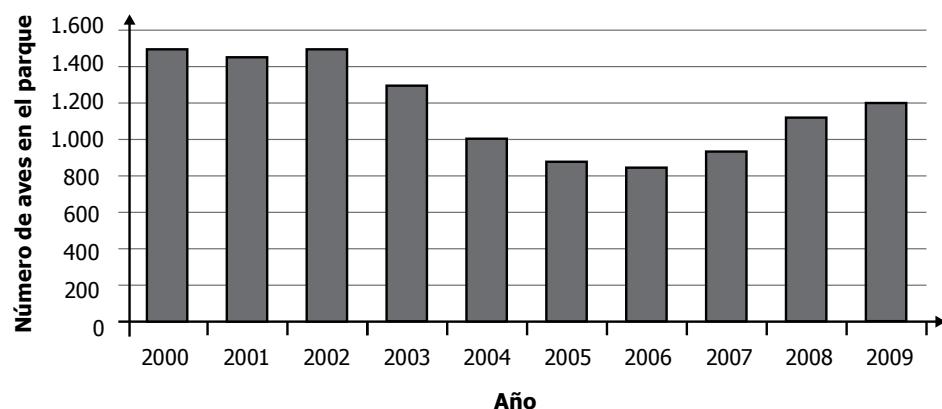
ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Montería	17.0%	37.3%	22.8%	21.4%	1.5%	5511
Mosquera	18.2%	44.3%	17.3%	19.6%	0.7%	1281
Nariño	16.4%	42.3%	18.9%	20.6%	1.8%	9241
Neiva	17.0%	37.8%	22.3%	22.0%	0.8%	3674
Norte de Santander	16.6%	39.2%	21.4%	21.8%	1.1%	8007
Palmira	17.5%	41.4%	21.3%	19.2%	0.7%	2771
Pasto	18.0%	42.2%	21.8%	17.2%	0.8%	4040
Pereira	17.0%	42.9%	19.8%	19.6%	0.8%	4350
Piedecuesta	17.3%	42.3%	18.8%	20.8%	0.7%	1488
Pitalito	16.7%	38.5%	24.5%	19.7%	0.6%	1585
Popayán	16.8%	44.8%	17.4%	20.2%	0.7%	3099
Putumayo	16.1%	36.5%	22.7%	22.8%	2.0%	4157
Quibdó	15.8%	38.1%	20.1%	23.4%	2.5%	1327
Quindío	15.9%	40.7%	21.4%	20.6%	1.4%	2454
Riohacha	17.2%	33.5%	22.4%	24.2%	2.7%	2581
Rionegro	17.3%	45.8%	18.5%	17.9%	0.6%	1193
Risaralda	15.1%	39.1%	22.4%	21.8%	1.5%	2799
Sabaneta	14.7%	53.3%	16.5%	14.9%	0.6%	516
Sahagún	17.4%	35.9%	21.8%	23.2%	1.6%	1215
San Andrés	16.4%	41.4%	21.9%	19.2%	1.1%	548
Santa Marta	16.3%	38.8%	22.3%	21.2%	1.3%	5836
Santander	15.4%	42.4%	20.8%	20.7%	0.6%	8649
Sincelejo	15.9%	42.3%	21.4%	19.5%	1.0%	3222
Soacha	18.2%	39.2%	20.8%	20.9%	0.9%	5626
Sogamoso	15.6%	47.5%	18.8%	17.3%	0.7%	1511
Soledad	18.3%	39.9%	20.6%	20.0%	1.1%	5489
Sucre	16.6%	34.5%	22.4%	25.0%	1.4%	7745
Tolima	16.9%	36.5%	22.6%	22.5%	1.5%	9697
Tuluá	15.7%	42.5%	21.5%	19.5%	0.7%	2140
Tumaco	15.8%	33.6%	22.3%	24.9%	3.5%	2367
Tunja	18.7%	44.5%	19.1%	17.2%	0.5%	1869
Turbo	16.4%	31.3%	25.2%	25.2%	1.9%	2128
Uribia	17.0%	25.7%	22.7%	30.6%	4.1%	1099
Valle del Cauca	15.6%	40.2%	22.5%	20.7%	1.1%	8455
Valledupar	16.5%	40.7%	20.1%	21.7%	1.1%	5282
Vichada	17.4%	32.0%	23.7%	23.2%	3.6%	771
Villavicencio	17.6%	40.9%	20.9%	19.5%	1.1%	5771
Yopal	16.1%	39.3%	22.3%	21.7%	0.7%	1996
Yumbo	16.1%	40.1%	20.5%	22.1%	1.2%	1256
Zipaquirá	15.7%	44.5%	18.0%	20.9%	0.9%	1282
Colombia	16.7%	39.8%	21.1%	21.1%	1.3%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• Pregunta 2.

En el año 2002, un grupo de familias llegó a un parque natural y se quedó a vivir llevando gatos como mascotas. En el 2006, una enfermedad redujo el número de gatos. La siguiente gráfica muestra el número de aves dentro del parque durante diez años.



Si por una ley se impidiera tener gatos como mascotas en esta zona, ¿qué pasaría con la población de aves?

- A. Aumentaría hasta llegar al valor que tenía antes de que llegaran los gatos.
- B. Se reduciría hasta llegar a la extinción.
- C. Aumentaría el doble porque ahora tendrían más espacio.
- D. Se reduciría porque no tendrían alimento.

• Estructura

Competencia	Indagar
Componente	Entorno vivo
Afirmación	Elaborar y proponer explicaciones para algunos fenómenos de la naturaleza basadas en conocimiento científicos y de la evidencia de su propia investigación y de la de otros.
Nivel de desempeño	Avanzado
Respuesta Correcta	A



• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	32.0%	22.6%	24.5%	18.1%	2.8%	974
Antioquia	36.9%	21.3%	23.2%	16.9%	1.7%	29320
Apartadó	34.4%	21.6%	23.9%	17.8%	2.4%	1767
Arauca	39.0%	20.4%	23.0%	16.3%	1.3%	2669
Armenia	40.9%	20.7%	22.2%	14.8%	1.4%	2579
Atlántico	35.7%	20.3%	23.9%	17.0%	3.0%	5983
Barrancabermeja	41.6%	18.7%	24.0%	14.1%	1.6%	2505
Barranquilla	38.8%	21.3%	22.9%	15.6%	1.4%	12394
Bello	42.9%	21.5%	21.1%	13.4%	1.1%	3830
Bogotá, D.C.	44.0%	20.5%	20.4%	14.0%	1.1%	66797
Bolívar	31.6%	21.0%	25.2%	19.3%	2.9%	11151
Boyacá	38.6%	21.6%	23.0%	16.0%	0.9%	9254
Bucaramanga	44.5%	20.2%	21.6%	12.9%	0.9%	5292
Buenaventura	35.0%	19.4%	25.1%	17.5%	3.0%	4160
Buga	40.8%	21.0%	22.2%	14.5%	1.4%	1232
Caldas	39.2%	21.1%	23.2%	15.5%	1.0%	5744
Cali	42.9%	20.8%	21.9%	13.0%	1.3%	19610
Caquetá	34.3%	19.4%	25.2%	19.5%	1.5%	3244
Cartagena	37.3%	21.1%	24.0%	15.6%	2.1%	11445
Cartago	41.5%	19.0%	21.6%	16.7%	1.2%	1275
Casanare	36.1%	24.0%	24.0%	14.5%	1.3%	3063
Cauca	35.7%	19.9%	24.5%	17.5%	2.4%	12552
Cesar	35.7%	19.9%	24.4%	18.5%	1.5%	8453
Chocó	32.4%	18.4%	24.5%	21.7%	3.1%	3820
Chía	44.9%	19.1%	20.3%	14.8%	0.8%	1455
Ciénaga	33.0%	18.8%	27.5%	17.9%	2.8%	1510
Cundinamarca	41.4%	20.8%	22.5%	14.5%	0.8%	16383
Córdoba	32.0%	21.3%	26.6%	18.2%	1.9%	13345
Cúcuta	41.8%	21.0%	21.7%	14.4%	1.2%	7402
Dosquebradas	40.4%	22.0%	22.3%	14.0%	1.3%	1853
Duitama	44.7%	21.1%	20.1%	13.9%	0.2%	1405
Envigado	50.0%	19.6%	18.0%	11.8%	0.6%	1411
Facatativá	46.3%	18.9%	21.3%	12.8%	0.7%	1404
Florencia	38.9%	20.1%	23.7%	16.0%	1.4%	2079
Floridablanca	44.4%	21.9%	20.9%	12.0%	0.9%	2598
Fusagasugá	42.5%	19.1%	23.0%	14.2%	1.2%	1236
Girardot	40.1%	19.3%	23.1%	14.5%	3.0%	901

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GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	41.3%	21.8%	22.6%	13.9%	0.5%	1515
Guainía	34.6%	19.5%	25.2%	17.8%	2.9%	512
Guaviare	36.4%	20.5%	22.3%	19.0%	1.7%	920
Huila	38.6%	22.3%	22.6%	15.6%	0.9%	8188
Ibagué	44.7%	19.9%	21.8%	12.9%	0.7%	5529
Ipiales	42.0%	20.7%	20.5%	15.5%	1.2%	1480
Itagüí	39.7%	22.4%	24.0%	12.2%	1.7%	2031
Jamundí	40.1%	21.2%	22.8%	14.5%	1.4%	1116
La Guajira	35.7%	18.2%	24.7%	18.5%	2.9%	3927
Lorica	35.2%	18.9%	24.9%	19.2%	1.8%	1541
Magangué	35.7%	21.3%	23.4%	17.2%	2.4%	1660
Magdalena	32.7%	19.8%	25.6%	19.2%	2.6%	9135
Maicao	36.3%	19.5%	23.2%	18.1%	2.9%	2161
Malambo	41.3%	18.8%	21.7%	16.2%	2.0%	1287
Manizales	43.0%	20.6%	22.2%	13.3%	1.0%	3133
Medellín	39.8%	21.4%	22.7%	14.7%	1.5%	20627
Meta	36.6%	21.8%	24.0%	15.9%	1.6%	6020
Montería	36.9%	21.2%	23.6%	16.9%	1.5%	5511
Mosquera	43.5%	21.2%	20.9%	13.6%	0.9%	1281
Nariño	36.9%	20.0%	23.4%	17.6%	2.1%	9241
Neiva	39.9%	21.6%	22.9%	14.5%	1.1%	3674
Norte de Santander	39.9%	19.7%	22.8%	16.3%	1.2%	8007
Palmira	44.4%	20.9%	21.6%	12.1%	1.0%	2771
Pasto	41.9%	21.7%	20.2%	15.5%	0.7%	4040
Pereira	40.4%	21.9%	21.4%	15.3%	1.0%	4350
Piedecuesta	44.7%	21.2%	21.4%	11.6%	1.1%	1488
Pitalito	39.2%	23.5%	21.3%	15.4%	0.6%	1585
Popayán	40.1%	21.9%	22.4%	14.1%	1.5%	3099
Putumayo	34.3%	23.4%	23.7%	16.7%	1.9%	4157
Quibdó	32.1%	18.3%	28.3%	18.6%	2.7%	1327
Quindío	39.0%	21.6%	23.1%	14.7%	1.5%	2454
Riohacha	34.9%	21.5%	23.1%	17.4%	3.0%	2581
Rionegro	41.7%	23.6%	19.1%	14.5%	1.0%	1193
Risaralda	38.5%	20.5%	23.5%	16.0%	1.6%	2799
Sabaneta	44.2%	20.2%	22.9%	11.8%	1.0%	516
Sahagún	32.4%	23.1%	24.4%	18.4%	1.7%	1215
San Andrés	36.5%	20.6%	25.7%	15.7%	1.5%	548
Santa Marta	38.2%	21.3%	22.3%	16.6%	1.7%	5836
Santander	40.9%	20.3%	23.2%	14.7%	0.9%	8649
Sincelejo	39.1%	20.3%	23.9%	15.4%	1.3%	3222

Continúa en la siguiente página



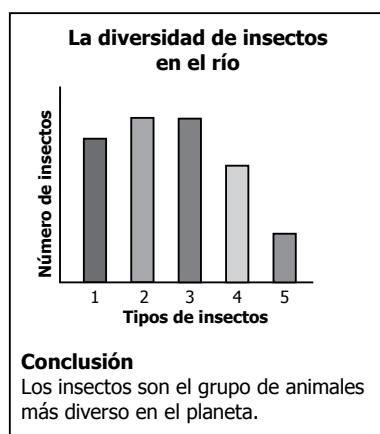
ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	40.9%	21.7%	21.8%	14.4%	1.2%	5626
Sogamoso	41.6%	22.2%	22.4%	13.0%	0.7%	1511
Soledad	38.3%	20.6%	22.7%	16.5%	1.9%	5489
Sucre	32.4%	21.7%	26.3%	17.8%	1.8%	7745
Tolima	37.1%	21.3%	23.9%	16.2%	1.5%	9697
Tuluá	42.1%	19.4%	22.4%	15.1%	0.9%	2140
Tumaco	30.0%	19.6%	24.9%	21.6%	3.9%	2367
Tunja	45.3%	20.8%	20.7%	12.7%	0.5%	1869
Turbo	31.3%	21.6%	24.8%	19.6%	2.6%	2128
Uribia	32.2%	18.4%	23.7%	21.7%	3.9%	1099
Valle del Cauca	39.7%	21.4%	22.4%	15.3%	1.2%	8455
Valledupar	39.5%	19.5%	21.9%	17.6%	1.4%	5282
Vichada	32.2%	20.9%	23.9%	19.6%	3.5%	771
Villavicencio	41.3%	20.5%	22.7%	14.2%	1.3%	5771
Yopal	38.4%	21.1%	23.4%	15.9%	1.1%	1996
Yumbo	44.4%	21.1%	19.6%	13.9%	1.0%	1256
Zipaquirá	42.9%	22.5%	20.4%	13.6%	0.6%	1282
Colombia	39.1%	20.8%	22.8%	15.7%	1.5%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

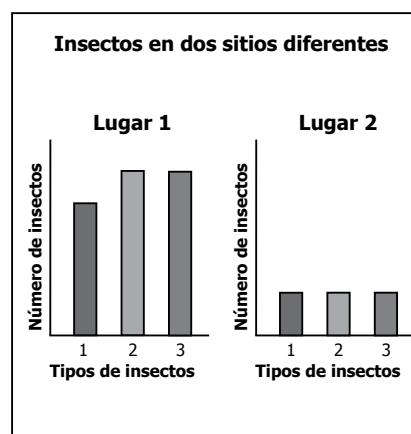
- Pregunta 3.**

María y Carlos hicieron una investigación en la que compararon la cantidad y el tipo de insectos que había en dos lugares diferentes. Encontraron que cerca del río había diferentes tipos de insectos y en mayor cantidad que en un pastizal. ¿Cuál de las siguientes carteleras deberían presentar María y Carlos para mostrar su investigación?

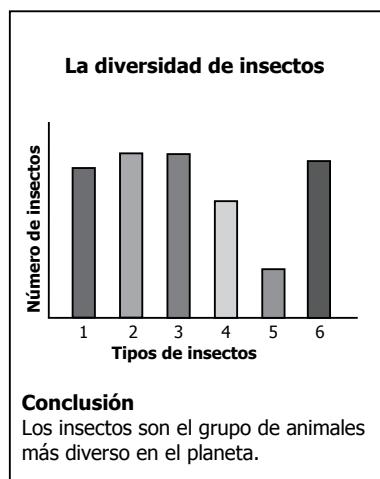
A.



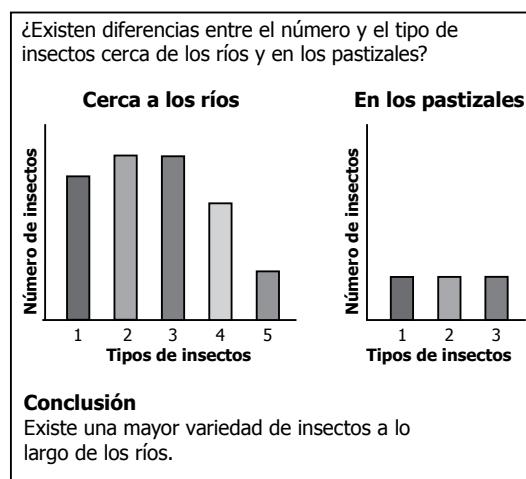
B.



C.



D.





- **Estructura**

Competencia	Indagar
Componente	Entorno vivo
Afirmación	Elaborar y proponer explicaciones para algunos fenómenos de la naturaleza basadas en conocimiento científicos y de la evidencia de su propia investigación y de la de otros.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	D

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	16.5%	17.9%	18.4%	43.8%	3.4%	974
Antioquia	16.0%	16.2%	16.6%	49.4%	1.8%	29320
Apartadó	15.2%	17.5%	18.4%	46.5%	2.4%	1767
Arauca	13.9%	15.8%	16.2%	52.8%	1.3%	2669
Armenia	13.0%	16.9%	16.1%	52.3%	1.6%	2579
Atlántico	16.0%	17.8%	17.6%	45.8%	2.8%	5983
Barrancabermeja	13.1%	17.6%	15.3%	52.4%	1.6%	2505
Baranquilla	14.9%	17.0%	15.8%	50.9%	1.5%	12394
Bello	14.6%	16.4%	14.7%	53.2%	1.2%	3830
Bogotá, D.C.	12.4%	14.9%	13.6%	57.9%	1.2%	66797
Bolívar	17.8%	17.4%	20.3%	41.6%	2.9%	11151
Boyacá	13.4%	16.3%	15.5%	53.8%	1.1%	9254
Bucaramanga	12.1%	14.1%	13.0%	59.8%	1.0%	5292
Buenaventura	15.6%	15.9%	18.3%	46.9%	3.3%	4160
Buga	13.4%	15.6%	15.0%	54.3%	1.7%	1232
Caldas	14.0%	15.9%	15.9%	52.9%	1.3%	5744
Cali	13.2%	15.3%	14.3%	55.7%	1.5%	19610
Caquetá	16.0%	17.6%	18.6%	46.4%	1.4%	3244
Cartagena	15.7%	16.6%	16.5%	48.9%	2.3%	11445
Cartago	13.3%	14.7%	15.1%	55.8%	1.2%	1275
Casanare	14.3%	16.6%	17.0%	50.7%	1.4%	3063
Cauca	15.7%	15.4%	17.1%	49.1%	2.7%	12552
Cesar	16.8%	16.2%	17.9%	47.7%	1.4%	8453

Continúa en la siguiente página

GRADO 5° - CIENCIAS NATURALES

ETC	A	B	C	D	Omisión y multimarca	Nº estudiantes
Chocó	16.5%	18.7%	21.0%	40.7%	3.2%	3820
Chía	10.2%	14.4%	12.6%	62.1%	0.6%	1455
Ciénaga	15.2%	17.2%	16.8%	47.9%	3.0%	1510
Cundinamarca	12.4%	14.7%	14.6%	57.4%	0.9%	16383
Córdoba	17.1%	17.2%	20.0%	43.5%	2.2%	13345
Cúcuta	14.1%	15.8%	15.4%	53.6%	1.1%	7402
Dosquebradas	12.6%	15.5%	14.1%	56.5%	1.2%	1853
Duitama	11.8%	15.3%	13.2%	59.3%	0.4%	1405
Envigado	11.7%	14.7%	13.0%	60.2%	0.4%	1411
Facatativá	12.4%	14.9%	15.0%	57.1%	0.6%	1404
Florencia	14.2%	17.6%	16.3%	50.5%	1.5%	2079
Floridablanca	10.8%	14.8%	14.3%	59.2%	0.9%	2598
Fusagasugá	11.8%	16.4%	13.5%	56.8%	1.5%	1236
Girardot	15.6%	17.0%	14.1%	50.7%	2.6%	901
Girón	14.9%	15.2%	15.6%	53.5%	0.9%	1515
Guainía	15.8%	18.6%	20.7%	42.2%	2.7%	512
Guaviare	14.5%	15.9%	16.5%	51.0%	2.2%	920
Huila	13.4%	15.1%	15.9%	54.6%	1.0%	8188
Ibagué	12.2%	14.4%	14.0%	58.7%	0.7%	5529
Ipiales	12.8%	16.8%	14.7%	54.6%	1.1%	1480
Itagüí	15.2%	15.8%	16.2%	51.3%	1.6%	2031
Jamundí	15.9%	17.7%	16.4%	48.0%	1.9%	1116
La Guajira	15.7%	17.9%	18.3%	45.4%	2.8%	3927
Lorica	16.5%	18.8%	18.4%	44.5%	1.8%	1541
Magangué	16.1%	18.1%	18.4%	45.2%	2.2%	1660
Magdalena	16.8%	18.0%	20.4%	42.0%	2.9%	9135
Maicao	17.6%	16.6%	19.0%	43.6%	3.2%	2161
Malambo	15.9%	18.2%	15.8%	47.8%	2.3%	1287
Manizales	12.4%	15.4%	13.0%	58.2%	0.9%	3133
Medellín	15.1%	16.7%	16.5%	50.0%	1.7%	20627
Meta	15.0%	16.9%	16.7%	49.7%	1.7%	6020
Montería	16.1%	17.7%	18.1%	46.3%	1.8%	5511
Mosquera	10.6%	14.8%	12.3%	61.4%	0.9%	1281
Nariño	13.9%	15.3%	14.8%	53.9%	2.2%	9241
Neiva	15.5%	14.9%	15.0%	53.2%	1.4%	3674
Norte de Santander	14.2%	15.4%	15.0%	54.0%	1.4%	8007
Palmira	11.7%	13.2%	14.5%	59.5%	1.0%	2771
Pasto	13.4%	14.7%	13.7%	57.5%	0.8%	4040
Pereira	14.1%	16.4%	14.9%	53.6%	0.9%	4350
Piedecuesta	13.4%	15.3%	14.9%	55.1%	1.3%	1488

Continúa en la siguiente página



ETC	A	B	C	D	Omisión y multimarca	Nº estudiantes
Pitalito	15.5%	15.3%	17.4%	51.0%	0.9%	1585
Popayán	14.2%	16.0%	14.0%	54.7%	1.1%	3099
Putumayo	14.8%	16.7%	18.2%	48.3%	2.0%	4157
Quibdó	18.6%	17.7%	19.1%	40.9%	3.6%	1327
Quindío	14.5%	16.9%	15.1%	51.9%	1.7%	2454
Riohacha	16.3%	17.0%	18.3%	45.5%	2.9%	2581
Rionegro	12.7%	14.9%	13.9%	57.3%	1.3%	1193
Risaralda	14.4%	14.9%	15.8%	53.0%	1.9%	2799
Sabaneta	10.3%	15.3%	17.2%	56.0%	1.2%	516
Sahagún	16.4%	16.2%	20.1%	45.6%	1.7%	1215
San Andrés	16.2%	18.1%	17.9%	46.2%	1.6%	548
Santa Marta	16.6%	16.8%	16.3%	48.5%	1.7%	5836
Santander	12.7%	15.0%	14.8%	56.7%	0.8%	8649
Sincelejo	14.5%	17.8%	15.7%	50.8%	1.2%	3222
Soacha	14.3%	15.6%	15.5%	53.5%	1.2%	5626
Sogamoso	12.6%	17.3%	13.6%	55.7%	0.8%	1511
Soledad	16.4%	15.9%	14.9%	51.2%	1.5%	5489
Sucre	17.5%	17.8%	19.7%	43.1%	1.8%	7745
Tolima	14.7%	15.5%	16.1%	52.0%	1.6%	9697
Tuluá	12.3%	14.7%	14.8%	57.4%	0.8%	2140
Tumaco	18.8%	18.8%	19.9%	38.4%	4.1%	2367
Tunja	9.7%	15.9%	14.8%	59.0%	0.5%	1869
Turbo	18.7%	16.9%	19.4%	42.1%	3.0%	2128
Uribia	16.7%	17.6%	22.3%	38.7%	4.8%	1099
Valle del Cauca	13.9%	16.1%	15.1%	53.5%	1.4%	8455
Valledupar	15.2%	16.4%	15.6%	51.3%	1.6%	5282
Vichada	14.8%	15.3%	18.0%	48.2%	3.6%	771
Villavicencio	14.1%	16.6%	12.9%	54.9%	1.4%	5771
Yopal	13.5%	16.3%	17.2%	52.1%	0.9%	1996
Yumbo	13.1%	15.8%	14.0%	56.0%	1.1%	1256
Zipaquirá	11.2%	13.7%	13.7%	60.8%	0.5%	1282
Colombia	14.4%	16.0%	15.9%	52.0%	1.6%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



- **Pregunta 4.**

Alejandra leyó que en la época de los dinosaurios una gran nube de polvo cubrió el cielo e impidió la entrada de la luz al planeta. La mayoría de plantas murió con el paso del tiempo, al no recibir la luz del Sol. En los meses siguientes desaparecieron animales herbívoros y posteriormente desaparecieron los carnívoros. De esta información, ¿cuál conclusión puede sacar Alejandra?

- A. Los carnívoros necesitan recibir la luz directa del Sol para sobrevivir más que las plantas.
- B. Las plantas son la base de la cadena alimentaria y sin ellas los animales carnívoros también mueren.
- C. Los animales son la base de la cadena alimentaria y sin ellos las plantas desaparecen.
- D. Los animales herbívoros, no se vieron afectados por la ausencia de luz.

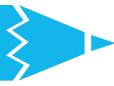
- **Estructura**

Competencia	Uso comprensivo del conocimiento científico
Componente	Entorno vivo
Afirmación	Comprender que existen relaciones entre los seres vivos y el entorno y que ellos dependen de éstas.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	B

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	20.3%	39.4%	18.4%	19.1%	2.8%	974
Antioquia	20.5%	45.7%	16.7%	15.3%	1.8%	29320
Apartadó	20.6%	42.8%	18.3%	16.0%	2.3%	1767
Arauca	20.4%	46.2%	16.3%	15.8%	1.3%	2669
Armenia	16.9%	50.9%	16.5%	14.1%	1.5%	2579
Atlántico	21.3%	41.7%	18.1%	15.8%	3.1%	5983
Barrancabermeja	19.2%	51.2%	16.0%	11.8%	1.8%	2505
Barranquilla	19.2%	49.1%	16.3%	13.8%	1.5%	12394
Bello	17.3%	51.4%	16.4%	13.2%	1.7%	3830
Bogotá, D.C.	16.0%	55.8%	14.4%	12.5%	1.2%	66797
Bolívar	21.8%	39.6%	17.9%	17.7%	2.9%	11151
Boyacá	18.8%	49.0%	16.5%	14.8%	0.9%	9254
Bucaramanga	16.5%	55.8%	13.8%	12.8%	1.1%	5292
Buenaventura	21.1%	44.9%	15.9%	15.1%	3.0%	4160
Buga	19.9%	47.9%	16.2%	14.7%	1.4%	1232

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Caldas	20.3%	48.0%	16.6%	13.9%	1.2%	5744
Cali	18.2%	52.1%	15.1%	13.1%	1.5%	19610
Caquetá	22.4%	42.2%	16.6%	17.4%	1.4%	3244
Cartagena	20.4%	48.2%	15.5%	13.6%	2.2%	11445
Cartago	17.4%	51.0%	15.5%	14.8%	1.3%	1275
Casanare	18.8%	46.9%	18.2%	14.5%	1.7%	3063
Cauca	21.1%	46.0%	16.0%	14.4%	2.5%	12552
Cesar	19.6%	43.8%	17.7%	17.4%	1.5%	8453
Chocó	22.2%	40.4%	16.3%	18.1%	3.1%	3820
Chía	15.0%	60.1%	14.3%	9.8%	0.8%	1455
Ciénaga	21.3%	42.6%	18.5%	15.1%	2.6%	1510
Cundinamarca	17.5%	52.1%	16.1%	13.3%	1.0%	16383
Córdoba	21.6%	41.8%	18.4%	16.1%	2.2%	13345
Cúcuta	18.5%	49.3%	16.7%	14.2%	1.2%	7402
Dosquebradas	18.5%	51.8%	14.2%	14.0%	1.6%	1853
Duitama	13.2%	60.8%	14.6%	10.9%	0.5%	1405
Envigado	11.5%	63.6%	13.7%	10.7%	0.5%	1411
Facatativá	17.1%	54.6%	14.5%	13.2%	0.6%	1404
Florencia	19.5%	45.8%	17.3%	15.5%	1.8%	2079
Floridablanca	15.4%	56.9%	14.5%	12.1%	1.0%	2598
Fusagasugá	18.0%	52.5%	15.2%	13.1%	1.2%	1236
Girardot	20.0%	46.5%	15.1%	15.4%	3.0%	901
Girón	19.1%	49.4%	17.6%	12.9%	1.1%	1515
Guainía	21.3%	45.5%	17.2%	12.9%	3.1%	512
Guaviare	18.8%	45.2%	18.6%	15.7%	1.7%	920
Huila	20.6%	47.1%	16.5%	14.8%	1.0%	8188
Ibagué	17.4%	52.6%	15.5%	13.5%	1.0%	5529
Ipiales	18.2%	51.3%	15.5%	13.9%	1.1%	1480
Itagüí	18.9%	48.9%	17.6%	12.9%	1.6%	2031
Jamundí	19.1%	44.1%	18.1%	16.9%	1.8%	1116
La Guajira	20.3%	43.7%	17.0%	16.5%	2.4%	3927
Lorica	20.6%	43.0%	17.4%	17.2%	1.9%	1541
Magangué	21.2%	41.9%	18.0%	16.5%	2.4%	1660
Magdalena	22.3%	41.1%	17.1%	16.6%	2.8%	9135
Maicao	21.1%	42.9%	18.0%	15.2%	2.8%	2161
Malambo	20.8%	43.4%	18.5%	14.8%	2.4%	1287
Manizales	18.6%	53.2%	14.5%	12.9%	0.8%	3133
Medellín	19.8%	48.4%	16.7%	13.4%	1.7%	20627
Meta	21.2%	44.2%	17.6%	15.2%	1.7%	6020
Montería	20.6%	44.4%	18.0%	15.3%	1.8%	5511
Mosquera	16.0%	53.6%	16.6%	13.3%	0.5%	1281

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GRADO 5° - CIENCIAS NATURALES

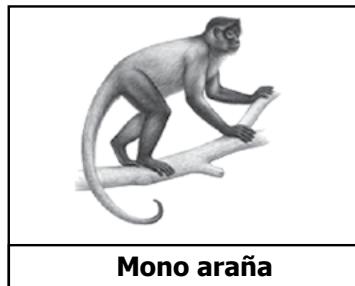
ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Nariño	19.5%	50.0%	15.0%	13.4%	2.1%	9241
Neiva	19.8%	48.0%	16.9%	13.8%	1.6%	3674
Norte de Santander	19.5%	49.5%	15.7%	14.1%	1.2%	8007
Palmira	17.3%	53.8%	14.8%	13.1%	1.1%	2771
Pasto	17.3%	55.1%	14.3%	12.4%	0.9%	4040
Pereira	16.9%	52.4%	14.7%	15.0%	1.0%	4350
Piedecuesta	18.1%	51.6%	15.1%	13.9%	1.3%	1488
Pitalito	20.6%	46.8%	15.8%	16.0%	0.8%	1585
Popayán	16.7%	52.6%	16.1%	13.6%	1.1%	3099
Putumayo	21.1%	44.0%	17.7%	15.2%	2.0%	4157
Quibdó	20.6%	42.4%	16.1%	18.1%	2.8%	1327
Quindío	19.4%	48.1%	16.1%	14.7%	1.7%	2454
Riohacha	21.2%	42.0%	18.1%	15.1%	3.5%	2581
Rionegro	17.3%	53.6%	15.0%	13.2%	0.9%	1193
Risaralda	17.8%	49.0%	15.8%	15.7%	1.7%	2799
Sabaneta	16.7%	55.8%	15.7%	10.7%	1.2%	516
Sahagún	21.1%	43.4%	18.3%	15.5%	1.8%	1215
San Andrés	18.1%	49.3%	19.3%	11.7%	1.6%	548
Santa Marta	19.4%	47.8%	16.8%	14.2%	1.8%	5836
Santander	19.1%	50.2%	16.0%	13.7%	1.0%	8649
Sincelejo	20.0%	47.5%	17.4%	13.6%	1.5%	3222
Soacha	17.3%	52.7%	15.8%	12.8%	1.3%	5626
Sogamoso	17.2%	53.1%	16.1%	12.6%	0.9%	1511
Soledad	18.9%	49.4%	16.5%	13.9%	1.3%	5489
Sucre	22.6%	42.1%	17.8%	15.7%	1.8%	7745
Tolima	20.3%	45.9%	17.2%	14.8%	1.7%	9697
Tuluá	19.2%	51.5%	16.0%	12.3%	1.0%	2140
Tumaco	20.4%	36.8%	21.3%	17.0%	4.5%	2367
Tunja	14.9%	60.6%	11.1%	12.5%	0.9%	1869
Turbo	23.4%	38.6%	17.1%	18.3%	2.6%	2128
Uribia	23.1%	37.1%	20.7%	15.2%	3.9%	1099
Valle del Cauca	18.9%	48.9%	16.3%	14.6%	1.4%	8455
Valledupar	18.6%	49.7%	15.2%	15.0%	1.5%	5282
Vichada	23.0%	39.6%	15.7%	17.6%	4.2%	771
Villavicencio	18.0%	51.9%	15.8%	12.8%	1.6%	5771
Yopal	17.3%	49.6%	18.0%	14.2%	0.8%	1996
Yumbo	18.7%	49.2%	17.4%	13.7%	1.0%	1256
Zipaquirá	16.1%	56.3%	14.7%	11.8%	1.1%	1282
Colombia	19.1%	48.9%	16.2%	14.2%	1.6%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• **Pregunta 5.**

Observa la imagen del mono araña.



El mono araña consigue el alimento de las ramas altas de los árboles. La parte del cuerpo que le podría ser más útil para trepar en los árboles y conseguir el alimento sería

- A. su pequeña cabeza, que le sirve como contrapeso para no caerse de las ramas.
- B. su larga cola, que le da equilibrio y lo ayuda a sujetarse de las ramas.
- C. su pelo corto, que le permite moverse entre las ramas.
- D. sus ojos pequeños, que le ayudan a elegir la rama a la cual va a saltar.

• **Estructura**

Competencia	Explicación de fenómenos
Componente	Entorno vivo
Afirmación	Comprender que los seres vivos dependen del funcionamiento e interacción de sus partes.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	B



GRADO 5° - CIENCIAS NATURALES

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	12.7%	47.5%	9.1%	27.5%	3.1%	974
Antioquia	10.2%	55.6%	9.7%	22.9%	1.6%	29320
Apartadó	12.5%	47.0%	10.9%	27.1%	2.5%	1767
Arauca	9.6%	58.7%	10.2%	20.3%	1.2%	2669
Armenia	11.0%	56.8%	10.6%	20.2%	1.4%	2579
Atlántico	11.9%	49.7%	11.5%	24.0%	2.9%	5983
Barrancabermeja	8.1%	60.8%	10.2%	19.5%	1.4%	2505
Barranquilla	11.4%	57.6%	10.2%	19.4%	1.4%	12394
Bello	10.7%	60.8%	8.7%	18.5%	1.3%	3830
Bogotá, D.C.	9.2%	63.8%	8.7%	17.1%	1.2%	66797
Bolívar	13.1%	44.5%	12.9%	26.9%	2.6%	11151
Boyacá	9.0%	60.2%	10.3%	19.7%	0.9%	9254
Bucaramanga	9.2%	63.2%	9.0%	17.4%	1.1%	5292
Buenaventura	12.8%	47.9%	11.1%	25.3%	2.9%	4160
Buga	9.3%	60.2%	9.3%	19.6%	1.5%	1232
Caldas	9.1%	57.9%	9.9%	21.9%	1.2%	5744
Cali	9.5%	62.0%	8.9%	18.1%	1.4%	19610
Caquetá	9.7%	50.2%	10.7%	28.2%	1.2%	3244
Cartagena	12.3%	53.9%	10.9%	21.0%	1.9%	11445
Cartago	10.4%	58.7%	10.0%	19.8%	1.2%	1275
Casanare	8.7%	57.0%	9.8%	23.0%	1.5%	3063
Cauca	9.8%	53.7%	9.3%	24.9%	2.3%	12552
Cesar	10.7%	53.5%	10.7%	23.7%	1.3%	8453
Chocó	14.2%	40.3%	12.2%	30.4%	2.9%	3820
Chía	7.8%	69.4%	7.1%	14.8%	0.8%	1455
Ciénaga	13.1%	47.6%	12.2%	24.4%	2.6%	1510
Cundinamarca	7.9%	64.2%	9.6%	17.4%	1.0%	16383
Córdoba	11.8%	47.7%	12.6%	26.1%	1.9%	13345
Cúcuta	10.6%	60.2%	9.3%	18.9%	1.0%	7402
Dosquebradas	9.4%	61.7%	8.0%	19.4%	1.5%	1853
Duitama	7.4%	68.8%	8.8%	14.5%	0.5%	1405
Envigado	9.0%	70.3%	7.2%	13.0%	0.5%	1411
Facatativá	10.1%	64.8%	8.5%	16.0%	0.6%	1404
Florencia	10.3%	54.5%	9.2%	24.7%	1.3%	2079
Floridablanca	9.1%	65.9%	8.8%	15.6%	0.7%	2598
Fusagasugá	9.9%	61.1%	8.7%	18.9%	1.4%	1236
Girardot	13.9%	51.5%	9.4%	22.5%	2.7%	901

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	10.8%	60.2%	11.2%	16.4%	1.5%	1515
Guainía	8.0%	52.3%	9.8%	27.1%	2.7%	512
Guaviare	9.8%	56.0%	9.8%	22.3%	2.2%	920
Huila	8.7%	57.8%	9.1%	23.5%	0.9%	8188
Ibagué	9.0%	62.8%	9.2%	18.1%	0.8%	5529
Ipiales	8.4%	60.7%	12.6%	17.2%	1.1%	1480
Itagüí	12.1%	59.3%	10.5%	16.7%	1.4%	2031
Jamundí	11.9%	55.1%	9.1%	22.5%	1.4%	1116
La Guajira	11.6%	51.0%	11.8%	23.5%	2.1%	3927
Lorica	11.9%	50.6%	12.3%	23.4%	1.9%	1541
Magangué	14.5%	47.9%	11.6%	24.0%	2.1%	1660
Magdalena	11.8%	47.9%	11.8%	25.9%	2.5%	9135
Maicao	13.5%	50.8%	11.2%	22.2%	2.4%	2161
Malambo	10.4%	57.2%	9.7%	20.9%	1.8%	1287
Manizales	8.5%	63.3%	9.4%	17.9%	0.9%	3133
Medellín	12.3%	56.5%	10.9%	18.8%	1.5%	20627
Meta	9.5%	55.5%	10.6%	22.9%	1.4%	6020
Montería	11.6%	53.2%	11.1%	22.3%	1.8%	5511
Mosquera	8.2%	69.5%	6.4%	15.0%	0.9%	1281
Nariño	8.2%	58.7%	8.2%	23.0%	1.9%	9241
Neiva	10.6%	59.1%	10.0%	19.3%	1.0%	3674
Norte de Santander	8.9%	59.7%	9.4%	21.1%	1.0%	8007
Palmira	9.3%	62.9%	8.3%	18.5%	1.1%	2771
Pasto	9.5%	63.9%	8.7%	17.0%	0.9%	4040
Pereira	9.1%	62.5%	8.8%	18.5%	1.1%	4350
Piedecuesta	8.5%	64.7%	8.9%	16.1%	1.7%	1488
Pitalito	8.8%	56.1%	10.5%	23.5%	1.1%	1585
Popayán	7.8%	63.3%	8.6%	19.3%	1.0%	3099
Putumayo	9.3%	52.2%	9.2%	27.4%	1.9%	4157
Quibdó	13.9%	45.7%	12.8%	25.2%	2.4%	1327
Quindío	10.8%	57.0%	9.6%	21.3%	1.4%	2454
Riohacha	12.8%	49.2%	11.9%	23.4%	2.6%	2581
Rionegro	8.8%	65.8%	9.1%	15.2%	1.2%	1193
Risaralda	8.7%	61.6%	8.3%	19.9%	1.6%	2799
Sabaneta	6.8%	66.3%	11.0%	14.5%	1.4%	516
Sahagún	10.8%	51.6%	11.5%	24.7%	1.4%	1215
San Andrés	11.7%	54.7%	13.0%	19.2%	1.5%	548
Santa Marta	11.8%	54.6%	11.3%	20.6%	1.7%	5836
Santander	8.2%	62.0%	9.3%	19.7%	0.8%	8649
Sincelejo	11.2%	56.0%	11.1%	20.5%	1.3%	3222

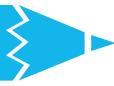
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GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	10.3%	60.8%	9.4%	18.2%	1.2%	5626
Sogamoso	8.3%	67.6%	8.9%	14.4%	0.7%	1511
Soledad	11.4%	58.1%	9.8%	19.2%	1.4%	5489
Sucre	12.7%	48.0%	11.3%	26.4%	1.5%	7745
Tolima	9.1%	55.5%	9.9%	23.9%	1.5%	9697
Tuluá	9.2%	61.3%	8.8%	20.0%	0.7%	2140
Tumaco	15.6%	36.3%	14.5%	29.6%	4.0%	2367
Tunja	7.9%	68.5%	8.8%	14.2%	0.6%	1869
Turbo	13.1%	42.6%	13.0%	29.0%	2.2%	2128
Uribia	13.9%	38.7%	13.3%	29.7%	4.5%	1099
Valle del Cauca	9.4%	58.0%	9.7%	21.7%	1.1%	8455
Valledupar	11.1%	56.8%	10.1%	20.8%	1.2%	5282
Vichada	9.9%	50.2%	7.5%	28.8%	3.6%	771
Villavicencio	10.0%	59.7%	10.3%	18.5%	1.5%	5771
Yopal	10.5%	58.7%	10.2%	19.6%	1.0%	1996
Yumbo	11.1%	59.6%	8.1%	20.3%	1.0%	1256
Zipaquirá	8.9%	66.5%	7.3%	16.3%	1.0%	1282
Colombia	10.2%	57.5%	9.9%	20.9%	1.5%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• Pregunta 6.

Javier encontró que en las ramas de un árbol pueden vivir diferentes tipos de plantas, entre ellas las bromelias. Las bromelias toman el agua de lluvia y realizan fotosíntesis y las raíces le sirven para sujetarse a las ramas del árbol. Sin embargo, el árbol no necesita de las bromelias para sobrevivir. Con base en esta información, ¿qué relación existe entre el árbol y la bromelia?

- A. Uno de los dos se beneficia y el otro no se perjudica.
- B. Uno de los organismos vive a expensas del otro y el otro se perjudica.
- C. Uno de los organismos se come al otro.
- D. Los dos organismos se benefician con la presencia del otro.

• Estructura

Competencia	Uso comprensivo del conocimiento científico
Componente	Entorno vivo
Afirmación	Comprender que existen relaciones entre los seres vivos y el entorno y que ellos dependen de éstas.
Nivel de desempeño	Avanzado
Respuesta Correcta	A

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	32.8%	21.9%	13.1%	30.5%	1.7%	974
Antioquia	39.2%	17.2%	10.6%	31.8%	1.2%	29320
Apartadó	36.0%	19.6%	10.0%	32.3%	2.0%	1767
Arauca	38.1%	20.5%	12.2%	28.6%	0.7%	2669
Armenia	40.2%	18.2%	11.1%	29.7%	0.9%	2579
Atlántico	37.6%	19.5%	12.1%	28.8%	2.0%	5983
Barrancabermeja	42.7%	18.4%	7.5%	30.5%	1.0%	2505
Barranquilla	41.2%	18.3%	9.8%	29.8%	0.8%	12394
Bello	41.4%	16.6%	9.7%	31.3%	1.0%	3830
Bogotá, D.C.	42.3%	16.1%	8.3%	32.4%	0.9%	66797
Bolívar	34.8%	20.5%	14.1%	28.4%	2.1%	11151
Boyacá	36.8%	18.0%	11.9%	32.7%	0.5%	9254
Bucaramanga	44.0%	17.1%	8.2%	29.8%	0.8%	5292
Buenaventura	40.0%	17.9%	11.0%	29.1%	2.0%	4160
Buga	39.7%	18.0%	9.0%	32.6%	0.6%	1232

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GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Caldas	41.8%	16.6%	10.1%	30.9%	0.6%	5744
Cali	42.9%	17.0%	8.3%	30.8%	1.0%	19610
Caquetá	35.1%	21.0%	14.9%	28.1%	0.8%	3244
Cartagena	42.3%	17.8%	9.8%	28.4%	1.7%	11445
Cartago	38.7%	19.0%	8.5%	32.8%	0.9%	1275
Casanare	37.0%	20.0%	12.5%	29.6%	0.9%	3063
Cauca	36.0%	18.2%	12.6%	31.4%	1.7%	12552
Cesar	37.3%	19.0%	12.8%	30.2%	0.7%	8453
Chocó	34.2%	19.8%	13.3%	30.4%	2.3%	3820
Chía	42.7%	17.1%	8.1%	31.5%	0.6%	1455
Ciénaga	38.2%	17.7%	13.8%	28.3%	2.0%	1510
Cundinamarca	39.9%	16.8%	10.0%	32.8%	0.6%	16383
Córdoba	35.9%	19.3%	13.5%	30.2%	1.1%	13345
Cúcuta	41.1%	18.3%	10.4%	29.6%	0.6%	7402
Dosquebradas	41.2%	15.1%	8.3%	34.4%	1.0%	1853
Duitama	41.6%	15.0%	8.5%	34.7%	0.3%	1405
Envigado	50.5%	13.3%	6.4%	29.5%	0.4%	1411
Facatativá	42.9%	14.8%	9.4%	32.6%	0.2%	1404
Florencia	40.2%	18.3%	11.3%	29.5%	0.8%	2079
Floridablanca	45.5%	16.2%	9.5%	28.2%	0.6%	2598
Fusagasugá	40.9%	17.2%	9.6%	31.2%	1.1%	1236
Girardot	44.5%	17.5%	9.3%	26.1%	2.6%	901
Girón	37.3%	20.2%	10.0%	32.0%	0.5%	1515
Guainía	29.5%	21.9%	11.3%	36.1%	1.2%	512
Guaviare	35.5%	20.1%	12.1%	31.4%	0.9%	920
Huila	38.7%	16.9%	11.4%	32.6%	0.4%	8188
Ibagué	41.6%	18.1%	9.1%	30.7%	0.5%	5529
Ipiales	40.3%	17.2%	9.1%	32.9%	0.6%	1480
Itagüí	45.1%	18.9%	8.5%	26.3%	1.2%	2031
Jamundí	39.6%	18.4%	9.2%	31.1%	1.7%	1116
La Guajira	33.8%	21.6%	13.4%	29.7%	1.5%	3927
Lorica	37.4%	20.8%	13.1%	28.0%	0.7%	1541
Magangué	36.0%	20.7%	13.4%	28.3%	1.6%	1660
Magdalena	36.7%	19.1%	12.3%	30.1%	1.8%	9135
Maicao	33.7%	20.3%	14.0%	30.4%	1.6%	2161
Malambo	40.6%	19.5%	11.3%	27.7%	0.9%	1287
Manizales	40.1%	16.6%	9.3%	33.7%	0.4%	3133
Medellín	42.1%	17.6%	9.5%	29.7%	1.1%	20627
Meta	37.7%	19.3%	11.7%	30.2%	1.1%	6020
Montería	38.3%	18.9%	11.0%	30.8%	1.0%	5511
Mosquera	42.4%	15.6%	7.7%	33.8%	0.5%	1281

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ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Nariño	38.2%	17.7%	10.6%	32.2%	1.3%	9241
Neiva	39.8%	19.0%	9.7%	30.8%	0.7%	3674
Norte de Santander	40.3%	17.4%	10.7%	30.9%	0.7%	8007
Palmira	41.2%	17.4%	8.3%	32.5%	0.6%	2771
Pasto	38.9%	17.2%	8.8%	34.5%	0.6%	4040
Pereira	41.3%	15.1%	9.1%	34.0%	0.6%	4350
Piedecuesta	41.6%	17.7%	7.8%	32.1%	0.9%	1488
Pitalito	38.5%	19.7%	10.3%	30.9%	0.6%	1585
Popayán	42.1%	16.3%	8.6%	32.4%	0.6%	3099
Putumayo	34.8%	20.3%	11.9%	31.7%	1.3%	4157
Quibdó	36.9%	19.4%	11.4%	29.8%	2.5%	1327
Quindío	38.5%	17.4%	10.6%	32.3%	1.1%	2454
Riohacha	35.5%	19.6%	13.8%	29.3%	1.9%	2581
Rionegro	40.8%	15.2%	8.3%	35.2%	0.5%	1193
Risaralda	39.9%	16.4%	9.1%	33.2%	1.4%	2799
Sabaneta	45.9%	15.7%	6.4%	31.2%	0.8%	516
Sahagún	35.3%	19.7%	11.4%	32.1%	1.5%	1215
San Andrés	42.2%	17.9%	13.3%	25.9%	0.7%	548
Santa Marta	39.2%	18.8%	10.9%	30.2%	0.9%	5836
Santander	40.4%	17.4%	11.0%	30.7%	0.5%	8649
Sincelejo	42.7%	18.1%	11.6%	26.8%	0.8%	3222
Soacha	39.3%	18.4%	8.4%	33.2%	0.7%	5626
Sogamoso	41.4%	18.7%	9.0%	30.3%	0.6%	1511
Soledad	41.3%	18.4%	10.5%	28.9%	1.0%	5489
Sucre	35.5%	19.7%	13.4%	30.4%	1.0%	7745
Tolima	37.1%	19.2%	11.9%	30.8%	0.9%	9697
Tuluá	43.8%	16.3%	9.3%	30.0%	0.5%	2140
Tumaco	32.9%	20.2%	14.9%	29.3%	2.7%	2367
Tunja	44.1%	17.0%	9.0%	29.6%	0.3%	1869
Turbo	33.4%	20.4%	13.3%	31.2%	1.8%	2128
Uribia	28.7%	24.1%	18.3%	26.2%	2.7%	1099
Valle del Cauca	40.1%	17.3%	10.1%	31.8%	0.7%	8455
Valledupar	40.1%	17.8%	10.3%	31.1%	0.7%	5282
Vichada	31.0%	23.0%	16.0%	28.8%	1.3%	771
Villavicencio	42.2%	18.8%	8.9%	29.4%	0.7%	5771
Yopal	40.8%	18.8%	10.2%	29.7%	0.5%	1996
Yumbo	38.9%	19.3%	10.4%	30.9%	0.6%	1256
Zipaquirá	42.5%	15.7%	6.9%	34.6%	0.4%	1282
Colombia	39.7%	17.9%	10.4%	31.0%	1.0%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• Pregunta 7.

Gran parte del agua que se evapora para la formación de las nubes pertenece a los mares y océanos. ¿Por qué, cuando llueve, el agua que cae de las nubes no presenta un sabor salado como el agua de mar?

- A. Porque la sal del agua de mar queda en las nubes.
- B. Porque solo se evapora el agua del mar y la sal no lo hace.
- C. Porque en las nubes el agua de mar se mezcla con el agua dulce de los ríos.
- D. Porque no toda el agua que se evapora forma nubes.

• Estructura

Competencia	Explicación de fenómenos
Componente	Entorno físico
Afirmación	Comprender que existe una gran diversidad de materiales que se pueden diferenciar a partir de sus propiedades.
Nivel de desempeño	Avanzado
Respuesta Correcta	B

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	11.7%	27.5%	31.0%	28.1%	1.6%	974
Antioquia	12.6%	36.1%	25.8%	24.2%	1.4%	29320
Apartadó	13.1%	37.2%	25.3%	22.2%	2.2%	1767
Arauca	11.5%	38.1%	26.4%	23.1%	0.9%	2669
Armenia	12.8%	40.0%	25.7%	20.2%	1.3%	2579
Atlántico	14.5%	34.5%	27.7%	20.7%	2.6%	5983
Barrancabermeja	13.1%	40.6%	25.5%	19.6%	1.2%	2505
Barranquilla	14.4%	38.9%	25.8%	19.6%	1.3%	12394
Bello	12.8%	41.9%	22.9%	21.0%	1.4%	3830
Bogotá, D.C.	12.5%	42.8%	22.7%	21.0%	0.9%	66797
Bolívar	13.8%	31.2%	29.1%	23.5%	2.3%	11151
Boyacá	11.6%	38.0%	26.4%	23.5%	0.5%	9254
Bucaramanga	13.8%	41.6%	25.5%	18.3%	0.9%	5292
Buenaventura	13.2%	32.9%	27.4%	24.4%	2.2%	4160
Buga	11.8%	37.9%	26.9%	22.3%	1.1%	1232

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Caldas	11.3%	37.3%	24.3%	26.3%	0.8%	5744
Cali	13.0%	39.1%	25.6%	21.1%	1.3%	19610
Caquetá	13.3%	33.6%	26.2%	25.7%	1.2%	3244
Cartagena	16.0%	38.7%	25.1%	18.4%	1.9%	11445
Cartago	11.5%	39.2%	22.2%	26.0%	1.1%	1275
Casanare	12.6%	35.9%	27.3%	23.3%	0.8%	3063
Cauca	12.3%	34.3%	26.3%	25.2%	1.8%	12552
Cesar	12.5%	34.7%	27.8%	24.0%	1.0%	8453
Chocó	12.9%	29.1%	32.4%	23.2%	2.4%	3820
Chía	10.7%	46.4%	24.2%	17.7%	1.0%	1455
Ciénaga	14.3%	35.4%	29.4%	18.3%	2.6%	1510
Cundinamarca	11.7%	39.8%	24.5%	23.2%	0.8%	16383
Córdoba	13.6%	32.3%	29.9%	22.7%	1.6%	13345
Cúcuta	14.8%	36.4%	27.5%	20.4%	0.9%	7402
Dosquebradas	11.6%	39.7%	23.3%	24.3%	1.1%	1853
Duitama	12.3%	45.1%	22.6%	19.8%	0.2%	1405
Envigado	11.8%	52.4%	18.8%	16.3%	0.6%	1411
Facatativá	11.9%	43.7%	22.2%	21.9%	0.4%	1404
Florencia	12.1%	34.3%	28.2%	24.3%	1.1%	2079
Floridablanca	12.4%	44.9%	24.4%	17.6%	0.8%	2598
Fusagasugá	12.4%	39.6%	26.4%	20.1%	1.5%	1236
Girardot	12.2%	38.3%	27.7%	19.5%	2.2%	901
Girón	14.1%	38.6%	29.8%	17.2%	0.4%	1515
Guainía	13.1%	27.7%	30.7%	26.8%	1.8%	512
Guaviare	11.3%	34.3%	28.8%	24.5%	1.1%	920
Huila	11.9%	35.0%	27.5%	24.9%	0.6%	8188
Ibagué	13.0%	39.4%	25.0%	21.8%	0.9%	5529
Ipiales	11.8%	42.6%	22.2%	22.7%	0.7%	1480
Itagüí	13.6%	40.9%	25.3%	19.1%	1.2%	2031
Jamundí	14.6%	35.9%	25.1%	23.0%	1.3%	1116
La Guajira	12.7%	35.2%	29.5%	21.1%	1.5%	3927
Lorica	13.8%	33.3%	28.5%	23.2%	1.3%	1541
Magangué	15.8%	30.1%	30.2%	22.5%	1.4%	1660
Magdalena	12.7%	31.9%	30.2%	23.0%	2.2%	9135
Maicao	14.3%	33.0%	29.4%	21.4%	1.9%	2161
Malambo	15.7%	36.4%	26.4%	19.2%	2.3%	1287
Manizales	12.0%	42.3%	23.1%	22.1%	0.6%	3133
Medellín	14.3%	40.6%	23.6%	20.3%	1.2%	20627
Meta	13.1%	34.2%	27.9%	23.4%	1.3%	6020
Montería	15.2%	35.7%	26.8%	21.2%	1.1%	5511

Continúa en la siguiente página

GRADO 5° - CIENCIAS NATURALES

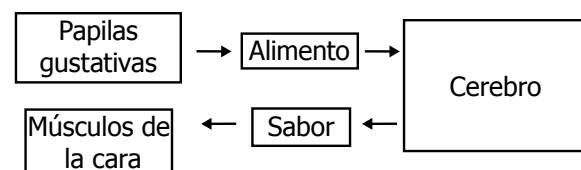
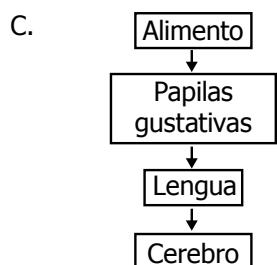
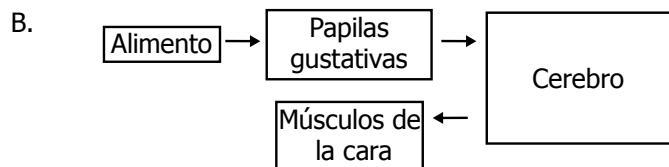
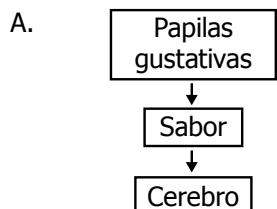
ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Mosquera	10.6%	44.6%	22.6%	21.3%	0.9%	1281
Nariño	10.4%	39.3%	26.1%	22.6%	1.6%	9241
Neiva	13.3%	35.5%	28.8%	21.7%	0.7%	3674
Norte de Santander	12.0%	37.3%	26.2%	23.5%	1.0%	8007
Palmira	13.3%	38.8%	26.6%	20.5%	0.8%	2771
Pasto	13.4%	40.2%	24.0%	21.7%	0.7%	4040
Pereira	12.3%	39.7%	23.1%	24.1%	0.9%	4350
Piedecuesta	14.0%	40.5%	26.1%	18.2%	1.2%	1488
Pitalito	13.2%	34.9%	26.8%	24.1%	0.9%	1585
Popayán	12.4%	39.9%	22.5%	24.4%	0.7%	3099
Putumayo	10.9%	34.0%	28.6%	24.9%	1.6%	4157
Quibdó	13.9%	32.0%	30.0%	21.7%	2.4%	1327
Quindío	13.6%	36.1%	26.2%	22.5%	1.6%	2454
Riohacha	13.9%	33.1%	30.4%	20.5%	2.1%	2581
Rionegro	11.1%	41.3%	24.2%	22.6%	0.8%	1193
Risaralda	11.4%	39.0%	23.6%	24.7%	1.3%	2799
Sabaneta	10.9%	45.9%	24.2%	17.8%	1.2%	516
Sahagún	13.6%	34.6%	28.7%	21.7%	1.4%	1215
San Andrés	17.9%	41.6%	23.5%	16.2%	0.7%	548
Santa Marta	15.3%	37.4%	25.6%	20.4%	1.4%	5836
Santander	11.1%	37.8%	27.2%	23.3%	0.6%	8649
Sincelejo	14.1%	39.2%	26.1%	19.7%	1.0%	3222
Soacha	13.8%	39.6%	24.0%	21.7%	0.9%	5626
Sogamoso	12.6%	40.7%	26.7%	19.5%	0.5%	1511
Soledad	14.4%	39.0%	25.3%	20.1%	1.3%	5489
Sucre	13.5%	31.9%	30.1%	23.2%	1.3%	7745
Tolima	12.8%	33.3%	29.1%	23.6%	1.2%	9697
Tuluá	11.7%	42.3%	23.9%	21.3%	0.7%	2140
Tumaco	14.5%	29.4%	30.2%	22.6%	3.2%	2367
Tunja	12.4%	43.3%	22.3%	21.4%	0.5%	1869
Turbo	13.9%	29.6%	29.1%	25.3%	2.2%	2128
Uribia	14.0%	27.0%	33.9%	21.9%	3.1%	1099
Valle del Cauca	12.2%	37.0%	25.9%	24.0%	0.9%	8455
Valledupar	12.6%	37.9%	26.9%	21.6%	1.0%	5282
Vichada	13.7%	26.3%	31.9%	26.2%	1.8%	771
Villavicencio	13.6%	38.0%	26.1%	20.9%	1.3%	5771
Yopal	14.7%	37.6%	24.8%	22.0%	0.9%	1996
Yumbo	13.6%	36.2%	25.0%	24.0%	1.2%	1256
Zipaquirá	9.5%	42.1%	23.2%	24.6%	0.5%	1282
Colombia	12.9%	37.8%	25.9%	22.1%	1.2%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• Pregunta 8.

Teresa probó un jugo de limón y su reacción fue arrugar la cara. Ella sabe que en la lengua se encuentran las papilas gustativas que perciben el sabor de los alimentos y luego lo trasmiten al cerebro donde se procesa y se reconoce el sabor del alimento. Como el sabor fue ácido, el cerebro coordinó una respuesta en los músculos de la cara. ¿Cuál de los siguientes esquemas representaría el proceso de sensación de sabores?



• Estructura

Competencia	Explicación de fenómenos
Componente	Entorno vivo
Afirmación	Comprender que los seres vivos dependen del funcionamiento e interacción de sus partes.
Nivel de desempeño	Avanzado
Respuesta Correcta	B

GRADO 5° - CIENCIAS NATURALES

- Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	19.5%	30.4%	25.9%	22.4%	1.8%	974
Antioquia	17.4%	35.8%	22.1%	23.1%	1.6%	29320
Apartadó	18.9%	32.9%	22.4%	23.3%	2.4%	1767
Arauca	17.5%	35.2%	21.8%	24.2%	1.3%	2669
Armenia	14.8%	40.1%	20.5%	23.4%	1.2%	2579
Atlántico	18.0%	34.3%	22.4%	22.1%	3.1%	5983
Barrancabermeja	16.1%	41.0%	19.3%	22.1%	1.6%	2505
Barranquilla	16.6%	39.4%	19.6%	23.0%	1.4%	12394
Bello	16.9%	42.7%	18.0%	21.1%	1.3%	3830
Bogotá, D.C.	13.5%	45.7%	17.3%	22.3%	1.1%	66797
Bolívar	19.7%	28.8%	25.3%	23.5%	2.7%	11151
Boyacá	17.1%	38.3%	22.0%	21.8%	0.8%	9254
Bucaramanga	13.9%	46.0%	17.7%	21.4%	1.0%	5292
Buenaventura	18.0%	33.4%	22.0%	23.9%	2.7%	4160
Buga	15.0%	41.3%	19.6%	22.6%	1.5%	1232
Caldas	17.1%	36.9%	21.7%	23.2%	1.0%	5744
Cali	15.5%	41.9%	18.5%	22.6%	1.4%	19610
Caquetá	18.1%	32.2%	24.6%	23.4%	1.6%	3244
Cartagena	17.0%	38.1%	20.1%	22.6%	2.2%	11445
Cartago	14.4%	41.1%	20.2%	23.1%	1.2%	1275
Casanare	17.1%	36.6%	20.7%	24.1%	1.5%	3063
Cauca	17.6%	34.2%	22.9%	23.3%	2.0%	12552
Cesar	18.4%	31.1%	24.0%	25.1%	1.3%	8453
Chocó	19.4%	30.0%	25.1%	22.6%	3.0%	3820
Chía	12.7%	49.4%	17.0%	20.2%	0.7%	1455
Ciénaga	19.9%	30.1%	24.9%	22.5%	2.6%	1510
Cundinamarca	14.1%	43.1%	19.3%	22.5%	0.9%	16383
Córdoba	19.7%	29.3%	25.1%	24.1%	1.8%	13345
Cúcuta	16.1%	40.6%	19.6%	22.6%	1.1%	7402
Dosquebradas	16.7%	39.0%	18.9%	24.1%	1.2%	1853
Duitama	13.6%	53.5%	15.4%	17.1%	0.5%	1405
Envigado	12.8%	51.0%	14.5%	21.3%	0.4%	1411
Facatativá	13.1%	44.8%	19.5%	22.4%	0.2%	1404
Florencia	17.7%	35.3%	21.9%	23.9%	1.2%	2079
Floridablanca	12.3%	47.4%	17.7%	21.6%	1.0%	2598
Fusagasugá	14.6%	42.3%	19.7%	21.8%	1.6%	1236
Girardot	16.8%	38.2%	17.4%	25.3%	2.3%	901

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	15.2%	44.2%	18.7%	21.1%	0.8%	1515
Guainía	18.0%	26.4%	27.3%	26.4%	2.0%	512
Guaviare	18.5%	32.5%	22.5%	25.4%	1.1%	920
Huila	16.9%	37.3%	21.4%	23.7%	0.7%	8188
Ibagué	14.5%	43.5%	18.2%	23.0%	0.8%	5529
Ipiales	13.8%	41.8%	19.3%	24.5%	0.7%	1480
Itagüí	16.2%	41.3%	21.1%	20.0%	1.4%	2031
Jamundí	17.6%	35.2%	23.2%	22.6%	1.4%	1116
La Guajira	18.3%	31.8%	23.8%	24.2%	1.9%	3927
Lorica	18.4%	36.1%	22.4%	21.2%	1.8%	1541
Magangué	20.3%	30.6%	23.6%	23.7%	1.9%	1660
Magdalena	18.0%	30.0%	25.4%	24.3%	2.4%	9135
Maicao	19.1%	32.1%	24.6%	22.2%	2.0%	2161
Malambo	17.6%	38.2%	19.3%	22.6%	2.3%	1287
Manizales	14.9%	44.1%	18.6%	21.9%	0.5%	3133
Medellín	16.3%	39.2%	20.0%	23.0%	1.5%	20627
Meta	17.0%	35.6%	21.7%	24.1%	1.5%	6020
Montería	17.9%	34.5%	22.5%	23.5%	1.7%	5511
Mosquera	11.6%	47.0%	17.3%	23.4%	0.7%	1281
Nariño	16.2%	36.0%	21.9%	24.3%	1.6%	9241
Neiva	16.6%	39.8%	20.0%	22.4%	1.1%	3674
Norte de Santander	16.4%	37.8%	21.3%	23.4%	1.0%	8007
Palmira	14.6%	43.1%	16.5%	25.0%	0.8%	2771
Pasto	14.4%	42.3%	19.1%	23.4%	0.9%	4040
Pereira	15.8%	41.3%	20.5%	21.5%	0.9%	4350
Piedecuesta	14.7%	43.6%	18.6%	21.9%	1.2%	1488
Pitalito	18.5%	39.1%	18.7%	23.0%	0.8%	1585
Popayán	15.2%	44.8%	18.6%	20.8%	0.7%	3099
Putumayo	17.2%	33.3%	24.1%	23.4%	2.0%	4157
Quibdó	22.3%	29.9%	22.8%	22.2%	2.8%	1327
Quindío	16.8%	39.4%	19.4%	22.9%	1.5%	2454
Riohacha	19.9%	31.5%	22.4%	23.5%	2.7%	2581
Rionegro	15.3%	46.6%	15.7%	21.6%	0.8%	1193
Risaralda	17.4%	36.6%	21.5%	22.6%	2.0%	2799
Sabaneta	12.4%	45.5%	17.6%	23.3%	1.2%	516
Sahagún	17.3%	33.3%	23.9%	23.4%	2.2%	1215
San Andrés	17.7%	38.7%	23.4%	19.2%	1.1%	548
Santa Marta	17.5%	35.8%	22.0%	23.4%	1.4%	5836
Santander	16.1%	41.0%	20.8%	21.3%	0.8%	8649
Sincelejo	17.8%	39.0%	20.0%	21.9%	1.3%	3222

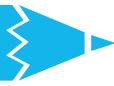
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GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	15.8%	41.9%	19.5%	21.8%	1.0%	5626
Sogamoso	12.9%	46.7%	18.3%	21.6%	0.5%	1511
Soledad	17.4%	37.8%	20.5%	22.6%	1.6%	5489
Sucre	19.7%	30.6%	25.1%	23.0%	1.5%	7745
Tolima	17.6%	35.8%	21.9%	23.2%	1.6%	9697
Tuluá	14.6%	40.5%	18.8%	25.3%	0.9%	2140
Tumaco	20.7%	25.6%	26.3%	24.3%	3.1%	2367
Tunja	12.9%	52.2%	16.6%	17.8%	0.5%	1869
Turbo	21.2%	27.9%	26.0%	22.6%	2.3%	2128
Uribia	19.7%	26.3%	24.9%	25.5%	3.6%	1099
Valle del Cauca	17.0%	36.6%	21.3%	24.0%	1.1%	8455
Valledupar	17.0%	37.3%	21.8%	22.9%	1.0%	5282
Vichada	17.3%	29.4%	26.5%	24.9%	1.9%	771
Villavicencio	16.4%	41.3%	18.3%	22.6%	1.3%	5771
Yopal	15.5%	39.5%	21.8%	22.2%	0.9%	1996
Yumbo	16.5%	40.7%	18.4%	23.7%	0.7%	1256
Zipaquirá	10.8%	46.4%	19.3%	23.0%	0.5%	1282
Colombia	16.4%	38.5%	20.7%	22.9%	1.4%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• **Pregunta 9.**

Diego contó el número de peces hembras en seis lagos de tamaño similar, tres contaminados con desechos tóxicos y tres no contaminados. Los resultados se presentan en la siguiente tabla.

Lago	Número de peces hembras
Lagos contaminados con desechos tóxicos	10
	0
	14
Lagos no contaminados	48
	86
	57

¿Cuál de las siguientes preguntas puede contestarse con los resultados que muestra la tabla?

- A. ¿Por qué hay pocos peces machos en los seis lagos?
- B. ¿Qué efecto tiene la contaminación sobre el número de peces hembras en los lagos?
- C. ¿Cómo los peces hembras sobreviven a la contaminación de los lagos?
- D. ¿En cuál de los tres lagos contaminados hay más peces machos?

• **Estructura**

Competencia	Indagar
Componente	Entorno vivo
Afirmación	Comprender que a partir de la investigación científica se construyen explicaciones sobre el mundo natural.
Nivel de desempeño	Avanzado
Respuesta Correcta	B



GRADO 5° - CIENCIAS NATURALES

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	21.0%	31.2%	26.7%	18.8%	2.3%	974
Antioquia	19.4%	34.9%	28.2%	15.7%	1.8%	29320
Apartadó	18.7%	35.0%	26.6%	16.8%	2.9%	1767
Arauca	19.0%	35.4%	29.9%	14.8%	0.8%	2669
Armenia	17.6%	37.3%	30.8%	12.9%	1.5%	2579
Atlántico	19.1%	33.4%	26.3%	18.2%	3.0%	5983
Barrancabermeja	17.0%	38.9%	28.6%	13.9%	1.5%	2505
Barranquilla	17.9%	36.6%	29.2%	14.7%	1.5%	12394
Bello	16.6%	37.5%	31.5%	13.2%	1.3%	3830
Bogotá, D.C.	14.7%	43.6%	29.1%	11.4%	1.2%	66797
Bolívar	21.3%	30.3%	27.3%	18.4%	2.7%	11151
Boyacá	16.7%	38.7%	29.3%	14.5%	0.8%	9254
Bucaramanga	15.3%	40.8%	29.9%	12.7%	1.3%	5292
Buenaventura	20.5%	32.1%	28.3%	16.0%	3.1%	4160
Buga	18.0%	37.4%	28.2%	14.7%	1.6%	1232
Caldas	18.9%	34.6%	30.4%	14.9%	1.2%	5744
Cali	16.9%	39.6%	29.5%	12.5%	1.6%	19610
Caquetá	22.2%	32.3%	26.0%	18.4%	1.2%	3244
Cartagena	18.4%	36.7%	27.2%	15.3%	2.3%	11445
Cartago	18.5%	36.3%	30.7%	12.9%	1.6%	1275
Casanare	17.4%	36.3%	30.2%	14.8%	1.3%	3063
Cauca	20.1%	34.6%	27.0%	16.0%	2.3%	12552
Cesar	21.6%	32.3%	27.9%	17.0%	1.2%	8453
Chocó	21.3%	30.3%	25.4%	20.0%	3.0%	3820
Chía	11.3%	48.4%	28.5%	10.7%	1.2%	1455
Ciénaga	21.3%	32.1%	27.9%	16.0%	2.7%	1510
Cundinamarca	15.4%	41.3%	29.5%	12.8%	1.0%	16383
Córdoba	21.0%	31.0%	27.5%	18.6%	1.9%	13345
Cúcuta	17.5%	37.7%	30.3%	13.3%	1.2%	7402
Dosquebradas	17.9%	38.3%	28.6%	13.6%	1.6%	1853
Duitama	11.7%	47.5%	29.9%	10.6%	0.3%	1405
Envigado	13.0%	49.5%	25.9%	10.8%	0.8%	1411
Facatativá	14.5%	46.0%	26.9%	12.2%	0.5%	1404
Florencia	19.0%	34.6%	29.8%	15.3%	1.3%	2079
Floridablanca	14.7%	44.1%	28.2%	11.9%	1.0%	2598
Fusagasugá	14.1%	41.0%	30.7%	12.6%	1.5%	1236
Girardot	16.6%	37.3%	26.6%	16.5%	2.9%	901

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	15.7%	38.9%	31.8%	12.8%	0.8%	1515
Guainía	18.8%	30.5%	24.6%	24.0%	2.1%	512
Guaviare	21.4%	31.6%	29.1%	16.1%	1.7%	920
Huila	18.6%	36.5%	28.8%	15.3%	0.9%	8188
Ibagué	16.0%	41.6%	30.3%	11.4%	0.8%	5529
Ipiales	16.9%	36.5%	31.0%	14.5%	1.1%	1480
Itagüí	16.4%	39.2%	30.2%	12.4%	1.8%	2031
Jamundí	18.0%	37.2%	29.5%	13.4%	1.9%	1116
La Guajira	20.4%	33.4%	26.2%	17.8%	2.1%	3927
Lorica	21.1%	35.1%	25.7%	16.5%	1.6%	1541
Magangué	22.3%	30.6%	26.2%	18.8%	2.1%	1660
Magdalena	22.1%	31.2%	25.9%	18.2%	2.6%	9135
Maicao	19.9%	31.4%	28.3%	17.8%	2.6%	2161
Malambo	22.9%	37.1%	23.5%	14.4%	2.1%	1287
Manizales	16.1%	40.7%	30.0%	12.4%	0.8%	3133
Medellín	17.9%	36.4%	29.6%	14.5%	1.7%	20627
Meta	18.9%	34.4%	29.0%	15.8%	1.9%	6020
Montería	19.6%	34.6%	27.9%	16.3%	1.6%	5511
Mosquera	14.4%	45.1%	28.8%	10.4%	1.3%	1281
Nariño	19.0%	37.3%	27.9%	14.1%	1.7%	9241
Neiva	16.5%	37.9%	30.9%	13.5%	1.1%	3674
Norte de Santander	18.1%	37.6%	29.0%	14.3%	1.1%	8007
Palmira	15.6%	42.1%	29.6%	11.7%	0.9%	2771
Pasto	15.1%	41.3%	29.5%	13.3%	0.8%	4040
Pereira	17.3%	38.5%	30.1%	13.1%	1.0%	4350
Piedecuesta	16.2%	41.9%	27.9%	13.0%	1.1%	1488
Pitalito	19.6%	35.3%	31.1%	13.4%	0.6%	1585
Popayán	15.7%	40.6%	29.9%	13.0%	0.8%	3099
Putumayo	19.6%	34.6%	28.5%	15.2%	2.1%	4157
Quibdó	19.6%	27.1%	30.6%	19.4%	3.3%	1327
Quindío	18.5%	35.6%	29.9%	14.5%	1.5%	2454
Riohacha	21.5%	31.4%	27.3%	17.3%	2.5%	2581
Rionegro	13.2%	40.7%	32.3%	12.7%	1.1%	1193
Risaralda	17.0%	36.8%	29.2%	15.5%	1.5%	2799
Sabaneta	14.0%	41.3%	31.6%	12.0%	1.2%	516
Sahagún	20.2%	31.6%	29.8%	16.5%	1.8%	1215
San Andrés	17.5%	37.4%	29.4%	13.3%	2.4%	548
Santa Marta	19.6%	36.4%	27.3%	15.0%	1.7%	5836
Santander	16.3%	39.9%	28.4%	14.3%	1.0%	8649
Sincelejo	17.9%	37.1%	28.5%	15.1%	1.4%	3222

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

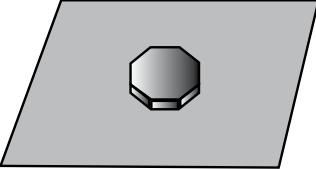
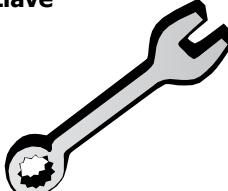
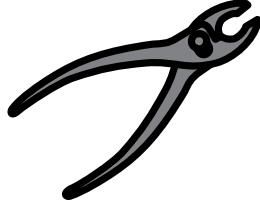
ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	18.2%	37.8%	30.7%	12.1%	1.2%	5626
Sogamoso	12.9%	44.3%	30.9%	11.4%	0.5%	1511
Soledad	18.8%	36.8%	28.5%	14.3%	1.6%	5489
Sucre	22.3%	31.9%	26.2%	17.9%	1.7%	7745
Tolima	19.4%	34.9%	28.6%	15.8%	1.4%	9697
Tuluá	17.2%	38.6%	30.7%	12.4%	1.1%	2140
Tumaco	21.7%	28.2%	25.6%	21.2%	3.3%	2367
Tunja	12.1%	47.0%	29.7%	10.6%	0.6%	1869
Turbo	22.1%	31.4%	26.8%	17.2%	2.5%	2128
Uribia	19.3%	27.4%	28.2%	21.6%	3.5%	1099
Valle del Cauca	18.2%	37.2%	28.5%	14.8%	1.2%	8455
Valledupar	18.7%	37.0%	27.8%	15.3%	1.2%	5282
Vichada	20.0%	30.6%	31.8%	15.7%	1.9%	771
Villavicencio	16.6%	38.7%	29.8%	13.7%	1.2%	5771
Yopal	17.5%	37.9%	29.4%	14.0%	1.2%	1996
Yumbo	18.2%	36.8%	30.5%	13.9%	0.7%	1256
Zipaquirá	14.9%	43.0%	30.6%	10.9%	0.6%	1282
Colombia	17.9%	37.4%	28.7%	14.5%	1.6%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• Pregunta 10.

Un tornillo como el que se muestra en la figura se encuentra fuertemente atascado y para desatornillar cuentas con las dos herramientas mostradas.

Tornillo	Herramientas	
	Llave 	Alicates 

¿Con cuál de estas herramientas puedes desatornillarlo más fácilmente?

- A. Con la llave, porque se requiere menos fuerza para mover el tornillo.
- B. Con la llave, porque se requiere más fuerza para mover el tornillo.
- C. Con el alicate, porque este ejerce presión sobre el tornillo lo que facilita su movimiento.
- D. Con el alicate, porque con este se hace fuerza al agarrar y mover el tornillo.

• Estructura

Competencia	Explicación de fenómenos
Componente	Entorno físico
Afirmación	Comprender el funcionamiento de algunas máquinas simples y la relación fuerza-movimiento.
Nivel de desempeño	Avanzado
Respuesta Correcta	A



GRADO 5° - CIENCIAS NATURALES

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	34.6%	27.3%	18.8%	16.7%	2.6%	974
Antioquia	39.5%	26.1%	19.9%	12.8%	1.6%	29320
Apartadó	37.3%	27.7%	19.4%	13.2%	2.3%	1767
Arauca	43.7%	26.6%	17.9%	10.5%	1.3%	2669
Armenia	39.8%	22.8%	23.4%	12.5%	1.6%	2579
Atlántico	38.3%	30.3%	17.0%	11.6%	2.8%	5983
Barrancabermeja	44.2%	24.5%	19.4%	10.7%	1.2%	2505
Barranquilla	39.5%	29.7%	18.6%	10.9%	1.4%	12394
Bello	40.8%	23.1%	22.0%	12.7%	1.4%	3830
Bogotá, D.C.	43.2%	19.5%	23.8%	12.3%	1.2%	66797
Bolívar	35.8%	30.5%	18.5%	12.7%	2.5%	11151
Boyacá	45.5%	23.6%	17.7%	12.4%	0.8%	9254
Bucaramanga	44.6%	19.2%	22.9%	12.0%	1.3%	5292
Buenaventura	36.9%	25.8%	20.0%	14.2%	3.1%	4160
Buga	39.5%	24.4%	22.3%	12.1%	1.7%	1232
Caldas	41.2%	24.8%	20.4%	12.6%	0.9%	5744
Cali	40.9%	23.3%	21.6%	12.7%	1.4%	19610
Caquetá	37.8%	28.7%	17.7%	14.5%	1.3%	3244
Cartagena	39.7%	30.6%	16.8%	10.6%	2.3%	11445
Cartago	37.3%	23.5%	24.1%	13.6%	1.5%	1275
Casanare	44.2%	24.0%	18.8%	11.4%	1.5%	3063
Cauca	42.3%	25.7%	16.2%	13.5%	2.4%	12552
Cesar	37.5%	29.3%	18.6%	13.6%	1.1%	8453
Chocó	37.2%	26.0%	18.3%	15.5%	2.9%	3820
Chía	42.8%	19.1%	23.3%	13.7%	1.0%	1455
Ciénaga	34.6%	29.4%	18.8%	14.4%	2.7%	1510
Cundinamarca	45.6%	21.6%	20.4%	11.6%	0.9%	16383
Córdoba	36.3%	31.0%	18.1%	12.6%	2.0%	13345
Cúcuta	45.4%	22.8%	20.3%	10.3%	1.2%	7402
Dosquebradas	40.2%	20.0%	23.6%	15.1%	1.2%	1853
Duitama	49.5%	17.4%	22.6%	9.9%	0.6%	1405
Envigado	44.4%	17.1%	25.3%	12.4%	0.8%	1411
Facatativá	46.2%	20.5%	22.2%	10.5%	0.6%	1404
Florencia	40.9%	25.3%	20.9%	11.6%	1.3%	2079
Floridablanca	45.0%	19.2%	22.5%	12.5%	0.8%	2598
Fusagasugá	46.0%	20.5%	20.6%	11.7%	1.3%	1236
Girardot	38.7%	28.0%	17.9%	12.8%	2.7%	901

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	40.3%	23.9%	22.2%	12.8%	0.8%	1515
Guainía	41.6%	26.0%	15.2%	14.6%	2.5%	512
Guaviare	39.8%	27.4%	18.2%	12.8%	1.8%	920
Huila	44.6%	25.3%	17.9%	11.5%	0.7%	8188
Ibagué	44.0%	21.8%	21.0%	12.5%	0.7%	5529
Ipiales	45.5%	23.3%	20.1%	10.5%	0.5%	1480
Itagüí	40.7%	22.5%	23.2%	12.1%	1.5%	2031
Jamundí	40.9%	24.6%	19.7%	12.9%	1.8%	1116
La Guajira	38.4%	27.4%	18.5%	13.4%	2.3%	3927
Lorica	36.0%	31.1%	19.2%	12.3%	1.4%	1541
Magangué	34.0%	31.1%	19.0%	13.5%	2.4%	1660
Magdalena	35.8%	30.8%	17.4%	13.6%	2.5%	9135
Maicao	37.2%	27.3%	19.8%	13.4%	2.4%	2161
Malambo	40.6%	31.8%	15.1%	11.2%	1.4%	1287
Manizales	41.6%	21.5%	22.7%	13.3%	0.8%	3133
Medellín	38.5%	22.3%	24.2%	13.4%	1.6%	20627
Meta	41.8%	25.8%	18.9%	12.0%	1.4%	6020
Montería	40.0%	30.6%	17.3%	10.5%	1.6%	5511
Mosquera	46.4%	17.4%	23.2%	12.0%	0.9%	1281
Nariño	45.0%	23.1%	18.3%	11.8%	1.8%	9241
Neiva	43.8%	25.1%	18.6%	11.3%	1.1%	3674
Norte de Santander	46.7%	24.5%	16.7%	11.0%	1.1%	8007
Palmira	40.2%	23.2%	22.9%	12.8%	0.9%	2771
Pasto	46.1%	21.0%	21.7%	10.3%	0.9%	4040
Pereira	41.1%	20.5%	23.7%	13.9%	0.9%	4350
Piedecuesta	44.5%	22.5%	21.1%	10.6%	1.3%	1488
Pitalito	44.5%	22.3%	19.9%	12.6%	0.7%	1585
Popayán	43.0%	24.6%	19.7%	11.4%	1.3%	3099
Putumayo	42.5%	24.6%	18.0%	12.9%	2.0%	4157
Quibdó	36.3%	27.0%	20.7%	13.0%	2.9%	1327
Quindío	41.6%	23.0%	20.9%	13.2%	1.3%	2454
Riohacha	38.1%	26.0%	20.2%	13.6%	2.1%	2581
Rionegro	45.5%	19.0%	23.1%	11.5%	0.9%	1193
Risaralda	39.3%	25.3%	19.6%	14.2%	1.6%	2799
Sabaneta	43.4%	20.9%	25.2%	9.5%	1.0%	516
Sahagún	36.7%	32.3%	18.6%	10.5%	1.8%	1215
San Andrés	37.0%	27.6%	21.9%	12.4%	1.1%	548
Santa Marta	40.1%	25.7%	20.5%	11.9%	1.8%	5836
Santander	45.8%	23.4%	18.7%	11.1%	0.9%	8649
Sincelejo	42.0%	29.2%	17.9%	9.7%	1.1%	3222

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	43.2%	21.4%	21.9%	12.4%	1.1%	5626
Sogamoso	46.9%	19.7%	22.2%	10.5%	0.7%	1511
Soledad	40.3%	31.0%	16.9%	10.3%	1.5%	5489
Sucre	38.0%	30.4%	17.8%	12.1%	1.7%	7745
Tolima	42.4%	26.6%	17.4%	12.1%	1.5%	9697
Tuluá	41.9%	22.4%	21.9%	12.7%	1.0%	2140
Tumaco	34.5%	25.0%	22.4%	14.2%	3.8%	2367
Tunja	44.7%	19.9%	21.3%	13.5%	0.6%	1869
Turbo	35.8%	30.2%	18.6%	13.3%	2.1%	2128
Uribia	24.9%	31.4%	20.5%	19.3%	3.9%	1099
Valle del Cauca	41.7%	25.5%	18.8%	12.7%	1.3%	8455
Valledupar	39.3%	26.1%	19.6%	14.0%	1.0%	5282
Vichada	33.5%	25.8%	17.9%	20.2%	2.6%	771
Villavicencio	44.3%	21.3%	21.2%	12.0%	1.2%	5771
Yopal	44.4%	23.5%	19.5%	11.3%	1.3%	1996
Yumbo	40.5%	24.8%	21.2%	12.2%	1.3%	1256
Zipaquirá	49.0%	22.0%	18.7%	9.6%	0.7%	1282
Colombia	41.3%	24.7%	20.2%	12.3%	1.5%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



- **Pregunta 11.**

La tabla muestra las características de un conjunto de cables fabricados con diferentes materiales.

Material del cable	Color	¿Es metal?	Si se usa en un circuito, ¿enciende el bombillo?
Cobre	Brillante	Sí	Sí
Madera	Opaco	No	No
Bronce	Opaco	Sí	Sí
Caucho	Opaco	No	No
Aluminio	Brillante	Sí	Sí
Cuarzo	Brillante	No	No

De la información en la tabla, puede afirmarse que

- A. los metales conducen la electricidad.
- B. los materiales opacos no conducen la electricidad.
- C. los materiales no metálicos conducen la electricidad.
- D. los materiales brillantes conducen la electricidad.

- **Estructura**

Competencia	Indagar
Componente	Entorno físico
Afirmación	Observar y relacionar patrones en los datos para evaluar las predicciones.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	A



GRADO 5° - CIENCIAS NATURALES

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	35.6%	16.4%	17.5%	28.1%	2.4%	974
Antioquia	45.2%	14.9%	15.5%	22.8%	1.5%	29320
Apartadó	43.3%	16.8%	15.7%	21.9%	2.4%	1767
Arauca	46.5%	15.1%	15.8%	21.5%	1.1%	2669
Armenia	50.1%	14.8%	15.9%	17.8%	1.4%	2579
Atlántico	39.1%	16.3%	17.6%	24.0%	2.9%	5983
Barrancabermeja	51.2%	15.3%	13.6%	18.4%	1.4%	2505
Barranquilla	47.2%	15.1%	15.4%	20.8%	1.4%	12394
Bello	54.7%	12.4%	14.7%	16.8%	1.3%	3830
Bogotá, D.C.	55.9%	13.3%	13.2%	16.4%	1.3%	66797
Bolívar	33.0%	17.9%	18.5%	28.0%	2.5%	11151
Boyacá	47.8%	14.6%	15.6%	21.0%	1.0%	9254
Bucaramanga	53.7%	13.2%	14.6%	16.9%	1.7%	5292
Buenaventura	43.6%	15.7%	14.1%	23.9%	2.7%	4160
Buga	48.6%	15.7%	14.6%	19.4%	1.6%	1232
Caldas	47.6%	15.0%	14.9%	21.3%	1.1%	5744
Cali	53.2%	14.2%	13.4%	17.6%	1.6%	19610
Caquetá	39.1%	16.6%	17.0%	25.7%	1.6%	3244
Cartagena	47.5%	15.1%	14.8%	20.5%	2.2%	11445
Cartago	48.5%	15.1%	15.2%	20.2%	1.1%	1275
Casanare	47.3%	14.1%	14.9%	22.1%	1.5%	3063
Cauca	42.4%	14.5%	16.3%	24.7%	2.2%	12552
Cesar	40.5%	15.9%	16.8%	25.7%	1.1%	8453
Chocó	35.7%	16.9%	17.7%	27.0%	2.7%	3820
Chía	59.2%	11.8%	12.4%	15.8%	0.8%	1455
Ciénaga	40.2%	17.0%	16.2%	23.8%	2.8%	1510
Cundinamarca	52.2%	13.1%	14.7%	19.0%	1.0%	16383
Córdoba	35.6%	17.3%	18.1%	27.3%	1.7%	13345
Cúcuta	50.1%	15.4%	14.8%	18.5%	1.2%	7402
Dosquebradas	52.5%	12.3%	13.7%	20.1%	1.4%	1853
Duitama	61.7%	11.0%	13.7%	12.8%	0.7%	1405
Envigado	62.0%	12.1%	12.0%	13.3%	0.6%	1411
Facatativá	56.3%	12.8%	13.6%	16.7%	0.6%	1404
Florencia	46.3%	14.2%	15.6%	22.4%	1.4%	2079
Floridablanca	57.5%	13.5%	11.4%	16.4%	1.2%	2598
Fusagasugá	54.2%	12.9%	12.9%	18.2%	1.9%	1236
Girardot	50.3%	14.0%	14.9%	17.6%	3.2%	901

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	50.5%	15.9%	16.1%	16.5%	1.0%	1515
Guainía	37.5%	15.4%	16.6%	27.9%	2.5%	512
Guaviare	41.3%	16.0%	17.7%	23.5%	1.5%	920
Huila	45.6%	14.5%	15.4%	23.8%	0.7%	8188
Ibagué	54.1%	13.3%	14.1%	17.7%	0.8%	5529
Ipiales	50.9%	15.7%	14.7%	18.0%	0.7%	1480
Itagüí	51.0%	14.4%	15.4%	17.6%	1.6%	2031
Jamundí	44.9%	15.5%	15.5%	22.7%	1.4%	1116
La Guajira	38.0%	15.8%	17.0%	27.0%	2.1%	3927
Lorica	39.4%	16.0%	17.8%	25.6%	1.2%	1541
Magangué	37.0%	16.1%	19.5%	25.5%	1.9%	1660
Magdalena	36.5%	16.5%	16.7%	27.9%	2.3%	9135
Maicao	36.6%	18.0%	18.2%	24.9%	2.3%	2161
Malambo	44.0%	16.2%	17.7%	20.3%	1.8%	1287
Manizales	53.6%	13.7%	13.1%	19.0%	0.7%	3133
Medellín	48.0%	15.8%	15.8%	18.8%	1.5%	20627
Meta	44.4%	15.4%	16.4%	22.3%	1.5%	6020
Montería	40.8%	17.3%	16.9%	23.4%	1.6%	5511
Mosquera	55.4%	12.7%	12.5%	18.6%	0.8%	1281
Nariño	48.2%	14.5%	13.7%	21.7%	1.8%	9241
Neiva	48.0%	14.8%	15.9%	20.0%	1.3%	3674
Norte de Santander	48.5%	14.9%	14.5%	20.9%	1.1%	8007
Palmira	53.6%	13.9%	12.9%	18.8%	0.8%	2771
Pasto	54.0%	13.5%	14.3%	17.3%	0.9%	4040
Pereira	53.6%	14.0%	13.5%	18.0%	1.0%	4350
Piedecuesta	55.8%	12.4%	14.1%	16.5%	1.1%	1488
Pitalito	43.5%	17.0%	17.2%	21.6%	0.8%	1585
Popayán	52.3%	14.0%	13.5%	19.2%	1.0%	3099
Putumayo	42.9%	14.3%	16.9%	23.8%	2.1%	4157
Quibdó	38.0%	15.8%	18.5%	24.7%	2.9%	1327
Quindío	46.5%	14.8%	16.2%	20.8%	1.7%	2454
Riohacha	38.9%	18.9%	16.7%	23.6%	1.8%	2581
Rionegro	53.8%	13.3%	15.7%	15.8%	1.3%	1193
Risaralda	46.5%	15.0%	15.8%	21.4%	1.3%	2799
Sabaneta	58.3%	12.4%	13.2%	14.9%	1.2%	516
Sahagún	37.0%	17.5%	17.3%	26.3%	1.8%	1215
San Andrés	42.9%	18.8%	17.7%	19.2%	1.5%	548
Santa Marta	45.0%	15.9%	16.1%	21.4%	1.6%	5836
Santander	50.3%	14.5%	14.3%	20.2%	0.8%	8649
Sincelejo	45.3%	16.3%	16.0%	21.1%	1.2%	3222

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

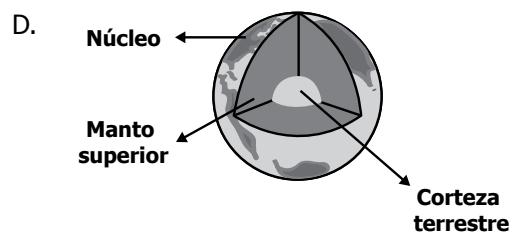
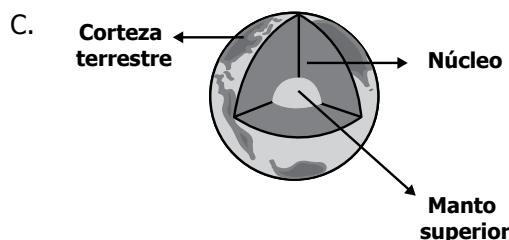
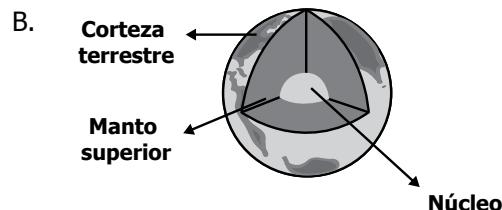
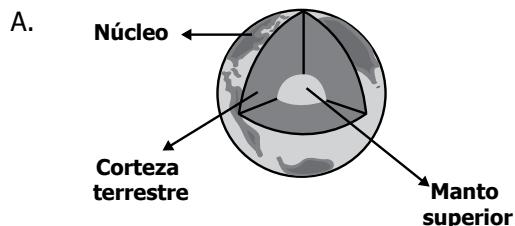
ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	50.8%	15.9%	14.2%	17.9%	1.2%	5626
Sogamoso	54.2%	14.7%	13.2%	17.1%	0.8%	1511
Soledad	46.4%	16.2%	15.0%	20.5%	1.9%	5489
Sucre	35.5%	16.7%	18.6%	27.8%	1.4%	7745
Tolima	44.6%	15.5%	16.1%	22.3%	1.5%	9697
Tuluá	52.6%	13.8%	13.2%	19.5%	0.8%	2140
Tumaco	34.0%	17.5%	18.5%	26.6%	3.5%	2367
Tunja	58.0%	11.9%	14.0%	15.4%	0.6%	1869
Turbo	33.2%	16.1%	19.2%	29.4%	2.1%	2128
Uribia	25.0%	16.7%	20.9%	34.0%	3.4%	1099
Valle del Cauca	47.3%	14.2%	16.2%	21.2%	1.2%	8455
Valledupar	45.9%	15.7%	15.5%	21.8%	1.1%	5282
Vichada	39.0%	14.0%	17.0%	28.0%	1.9%	771
Villavicencio	51.6%	14.0%	14.6%	18.4%	1.4%	5771
Yopal	49.8%	14.1%	16.4%	17.9%	1.7%	1996
Yumbo	49.3%	14.0%	15.0%	20.9%	0.8%	1256
Zipaquirá	55.1%	12.5%	13.0%	18.7%	0.7%	1282
Colombia	47.5%	14.9%	15.2%	20.9%	1.5%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• **Pregunta 12.**

La Tierra está conformada por: El manto superior que es un conjunto rocoso; la corteza terrestre que es la capa más superficial y delgada; y el núcleo, que posee las más altas temperaturas. ¿Cuál de los siguientes diagramas representa correctamente la ubicación de las capas internas de la Tierra?



• **Estructura**

Competencia	Uso comprensivo del conocimiento científico
Componente	Entorno físico
Afirmación	Reconocer los principales elementos y características de la tierra y del espacio.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	B



GRADO 5° - CIENCIAS NATURALES

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	19.4%	51.5%	15.7%	11.3%	2.1%	974
Antioquia	21.7%	50.2%	14.8%	12.0%	1.3%	29320
Apartadó	24.4%	47.0%	14.9%	11.5%	2.2%	1767
Arauca	17.2%	58.2%	13.1%	10.8%	0.7%	2669
Armenia	16.6%	61.3%	12.6%	8.4%	1.1%	2579
Atlántico	20.9%	52.3%	13.4%	11.2%	2.3%	5983
Barrancabermeja	15.9%	64.3%	10.7%	7.8%	1.3%	2505
Barranquilla	18.7%	60.0%	11.6%	8.7%	0.9%	12394
Bello	19.7%	58.3%	11.5%	9.5%	1.0%	3830
Bogotá, D.C.	12.9%	69.8%	9.1%	7.2%	1.0%	66797
Bolívar	25.6%	41.8%	16.8%	14.0%	1.8%	11151
Boyacá	14.8%	62.8%	12.8%	9.0%	0.5%	9254
Bucaramanga	13.8%	68.7%	9.5%	6.7%	1.3%	5292
Buenaventura	24.1%	47.2%	14.3%	12.4%	2.1%	4160
Buga	16.7%	61.0%	11.9%	9.3%	1.0%	1232
Caldas	17.9%	55.4%	15.1%	10.8%	0.7%	5744
Cali	16.7%	62.3%	11.2%	8.5%	1.2%	19610
Caquetá	21.3%	48.7%	17.6%	11.4%	1.0%	3244
Cartagena	21.2%	54.8%	12.0%	10.2%	1.8%	11445
Cartago	17.0%	60.9%	11.7%	9.5%	0.9%	1275
Casanare	16.9%	59.7%	12.8%	9.7%	0.8%	3063
Cauca	19.3%	52.5%	14.1%	12.3%	1.8%	12552
Cesar	20.1%	52.9%	13.4%	13.0%	0.7%	8453
Chocó	25.8%	41.0%	17.2%	13.8%	2.1%	3820
Chía	11.1%	74.1%	8.2%	5.7%	0.8%	1455
Ciénaga	22.8%	48.3%	13.6%	13.3%	1.9%	1510
Cundinamarca	13.2%	67.0%	10.9%	8.2%	0.7%	16383
Córdoba	24.4%	45.8%	15.4%	13.3%	1.1%	13345
Cúcuta	15.9%	63.4%	11.4%	8.4%	0.8%	7402
Dosquebradas	15.4%	64.3%	10.7%	8.6%	0.9%	1853
Duitama	9.6%	76.7%	8.2%	5.1%	0.4%	1405
Envigado	11.6%	75.3%	7.2%	5.4%	0.5%	1411
Facatativá	12.7%	69.3%	10.8%	7.0%	0.3%	1404
Florencia	18.0%	56.4%	13.7%	11.1%	0.8%	2079
Floridablanca	12.7%	70.0%	9.7%	6.8%	0.7%	2598
Fusagasugá	15.9%	64.2%	10.9%	7.5%	1.5%	1236
Girardot	18.8%	55.2%	13.0%	10.4%	2.7%	901

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	17.7%	61.3%	11.2%	9.5%	0.4%	1515
Guainía	19.5%	54.7%	14.5%	8.6%	2.7%	512
Guaviare	19.0%	53.5%	15.5%	11.2%	0.8%	920
Huila	15.8%	59.2%	13.8%	10.5%	0.6%	8188
Ibagué	14.2%	65.3%	11.0%	9.0%	0.5%	5529
Ipiales	11.9%	70.1%	9.2%	8.2%	0.6%	1480
Itagüí	22.6%	57.5%	11.2%	7.4%	1.2%	2031
Jamundí	23.3%	52.7%	13.0%	10.1%	0.9%	1116
La Guajira	23.6%	49.1%	13.6%	12.2%	1.4%	3927
Lorica	21.1%	51.0%	14.8%	12.1%	1.0%	1541
Magangué	27.5%	42.2%	15.1%	13.6%	1.6%	1660
Magdalena	24.0%	44.1%	16.1%	13.8%	2.0%	9135
Maicao	22.4%	49.8%	14.1%	12.0%	1.8%	2161
Malambo	19.8%	54.8%	12.2%	11.7%	1.5%	1287
Manizales	14.0%	65.8%	11.4%	8.1%	0.6%	3133
Medellín	21.3%	55.8%	12.1%	9.5%	1.3%	20627
Meta	18.6%	56.3%	13.2%	10.9%	1.0%	6020
Montería	21.4%	53.0%	12.6%	11.8%	1.3%	5511
Mosquera	12.4%	70.1%	9.6%	7.1%	0.8%	1281
Nariño	15.9%	61.1%	11.9%	9.8%	1.3%	9241
Neiva	16.7%	61.9%	11.5%	9.0%	0.9%	3674
Norte de Santander	15.8%	62.0%	12.4%	9.1%	0.8%	8007
Palmira	13.8%	67.8%	10.5%	7.3%	0.6%	2771
Pasto	12.2%	69.4%	9.8%	8.0%	0.7%	4040
Pereira	16.8%	61.0%	12.0%	9.4%	0.8%	4350
Piedecuesta	14.2%	69.5%	8.6%	6.8%	0.9%	1488
Pitalito	15.0%	61.8%	13.9%	8.8%	0.5%	1585
Popayán	13.9%	67.2%	10.7%	7.4%	0.7%	3099
Putumayo	17.4%	56.8%	13.4%	10.6%	1.7%	4157
Quibdó	23.5%	43.5%	16.4%	13.8%	2.8%	1327
Quindío	18.6%	58.2%	12.1%	9.7%	1.3%	2454
Riohacha	23.2%	50.4%	13.0%	11.1%	2.2%	2581
Rionegro	15.1%	65.7%	10.7%	7.8%	0.7%	1193
Risaralda	18.2%	53.9%	15.3%	11.3%	1.3%	2799
Sabaneta	12.0%	70.5%	9.3%	7.2%	1.0%	516
Sahagún	19.3%	55.1%	13.1%	11.2%	1.2%	1215
San Andrés	23.0%	54.9%	11.7%	9.3%	1.1%	548
Santa Marta	19.4%	57.4%	12.1%	10.0%	1.1%	5836
Santander	14.8%	63.1%	11.9%	9.7%	0.5%	8649
Sincelejo	18.6%	58.2%	12.3%	10.1%	0.9%	3222

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

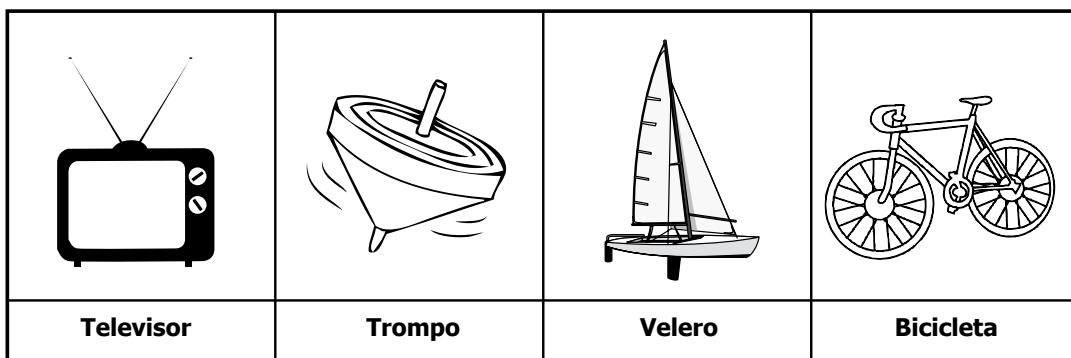
ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	16.2%	63.6%	11.2%	8.2%	0.8%	5626
Sogamoso	12.6%	71.2%	10.5%	5.4%	0.4%	1511
Soledad	18.3%	59.6%	12.1%	8.9%	1.0%	5489
Sucre	23.4%	47.7%	14.5%	13.3%	1.1%	7745
Tolima	17.1%	55.6%	14.3%	11.8%	1.2%	9697
Tuluá	16.0%	60.9%	12.2%	10.1%	0.7%	2140
Tumaco	28.3%	38.2%	15.0%	15.3%	3.0%	2367
Tunja	11.0%	74.2%	8.9%	5.5%	0.4%	1869
Turbo	27.6%	38.3%	19.5%	13.2%	1.5%	2128
Uribia	27.1%	37.5%	17.0%	15.4%	3.0%	1099
Valle del Cauca	18.7%	57.2%	13.1%	10.1%	0.9%	8455
Valledupar	18.6%	57.8%	12.9%	9.9%	0.8%	5282
Vichada	21.3%	51.6%	14.7%	11.0%	1.4%	771
Villavicencio	16.5%	63.9%	11.2%	7.3%	1.0%	5771
Yopal	15.6%	65.0%	10.1%	8.5%	0.8%	1996
Yumbo	17.4%	58.8%	13.2%	9.8%	0.7%	1256
Zipaquirá	11.3%	72.5%	7.9%	8.0%	0.3%	1282
Colombia	17.9%	58.7%	12.4%	9.9%	1.1%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• **Pregunta 13.**

Observa los siguientes dibujos.



¿Cuáles de estos objetos funcionan con una fuente natural de energía?

- A. El televisor, el velero y el trompo.
- B. El velero, el trompo y la bicicleta.
- C. El velero, el televisor y la bicicleta.
- D. El televisor, el trompo y la bicicleta.

• **Estructura**

Competencia	Uso comprensivo del conocimiento científico
Componente	Entorno físico
Afirmación	Comprender que existen diversas fuentes y formas de energía y que ésta se transforma continuamente.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	B



GRADO 5° - CIENCIAS NATURALES

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	23.5%	31.8%	24.4%	17.8%	2.5%	974
Antioquia	23.2%	40.4%	20.0%	14.9%	1.5%	29320
Apartadó	22.7%	37.8%	21.4%	15.9%	2.2%	1767
Arauca	17.9%	48.3%	18.7%	14.3%	0.9%	2669
Armenia	19.2%	47.0%	18.8%	14.2%	0.9%	2579
Atlántico	20.1%	40.7%	19.8%	16.6%	2.7%	5983
Barrancabermeja	18.0%	50.0%	17.2%	13.3%	1.6%	2505
Barranquilla	19.1%	46.3%	19.4%	13.8%	1.4%	12394
Bello	17.7%	50.3%	17.4%	13.2%	1.4%	3830
Bogotá, D.C.	14.8%	56.8%	16.1%	11.2%	1.1%	66797
Bolívar	23.2%	33.1%	22.2%	19.0%	2.5%	11151
Boyacá	19.7%	45.9%	19.5%	14.2%	0.7%	9254
Bucaramanga	14.4%	56.4%	16.0%	12.1%	1.1%	5292
Buenaventura	23.6%	36.2%	20.2%	17.2%	2.7%	4160
Buga	19.4%	43.7%	19.6%	16.3%	1.1%	1232
Caldas	23.3%	41.1%	18.5%	16.1%	1.0%	5744
Cali	17.3%	51.0%	16.7%	13.6%	1.4%	19610
Caquetá	23.7%	36.1%	22.2%	16.6%	1.4%	3244
Cartagena	18.9%	45.7%	19.2%	14.1%	2.1%	11445
Cartago	19.5%	47.8%	18.2%	13.5%	1.1%	1275
Casanare	20.0%	44.7%	21.8%	12.4%	1.1%	3063
Cauca	24.1%	39.3%	18.7%	15.8%	2.1%	12552
Cesar	21.8%	40.8%	20.6%	15.9%	0.9%	8453
Chocó	26.8%	29.3%	21.5%	19.8%	2.5%	3820
Chía	12.4%	61.5%	14.4%	10.9%	0.8%	1455
Ciénaga	23.8%	39.5%	17.9%	16.7%	2.1%	1510
Cundinamarca	17.2%	51.5%	17.7%	12.8%	0.8%	16383
Córdoba	23.8%	35.1%	21.9%	17.6%	1.5%	13345
Cúcuta	18.4%	49.4%	17.6%	13.6%	0.9%	7402
Dosquebradas	20.1%	42.5%	20.8%	15.4%	1.1%	1853
Duitama	13.6%	61.5%	14.3%	10.1%	0.5%	1405
Envigado	13.9%	62.7%	14.2%	8.8%	0.5%	1411
Facatativá	14.2%	56.1%	17.0%	12.5%	0.3%	1404
Florencia	22.6%	40.6%	20.3%	15.3%	1.1%	2079
Floridablanca	13.9%	58.9%	16.2%	10.1%	0.9%	2598
Fusagasugá	16.2%	50.6%	17.6%	14.4%	1.3%	1236
Girardot	21.1%	42.0%	21.8%	12.2%	3.0%	901

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	17.4%	50.7%	17.4%	13.8%	0.7%	1515
Guainía	22.1%	38.3%	18.9%	18.0%	2.7%	512
Guaviare	22.8%	40.2%	19.8%	15.9%	1.3%	920
Huila	21.6%	41.8%	18.9%	17.0%	0.6%	8188
Ibagué	17.8%	51.0%	17.3%	13.2%	0.8%	5529
Ipiales	17.2%	53.6%	17.8%	10.5%	0.7%	1480
Itagüí	17.1%	52.5%	17.1%	12.2%	1.2%	2031
Jamundí	21.6%	41.8%	20.4%	14.7%	1.5%	1116
La Guajira	21.0%	40.8%	20.2%	16.2%	1.8%	3927
Lorica	21.6%	42.8%	20.1%	14.6%	0.9%	1541
Magangué	23.0%	33.5%	22.5%	18.9%	2.2%	1660
Magdalena	24.8%	35.3%	19.7%	18.0%	2.2%	9135
Maicao	24.0%	38.1%	17.9%	17.9%	2.1%	2161
Malambo	22.5%	43.1%	18.7%	13.5%	2.2%	1287
Manizales	19.0%	46.6%	19.1%	14.6%	0.8%	3133
Medellín	17.9%	48.2%	18.9%	13.7%	1.4%	20627
Meta	21.5%	43.1%	19.9%	13.9%	1.6%	6020
Montería	22.0%	40.8%	19.9%	15.8%	1.5%	5511
Mosquera	13.8%	59.6%	14.5%	10.9%	1.2%	1281
Nariño	21.8%	45.8%	17.1%	13.8%	1.6%	9241
Neiva	19.4%	47.3%	18.3%	14.2%	0.8%	3674
Norte de Santander	19.6%	48.4%	16.1%	14.9%	0.9%	8007
Palmira	18.0%	51.3%	16.7%	13.3%	0.8%	2771
Pasto	16.8%	56.3%	14.5%	11.7%	0.7%	4040
Pereira	19.5%	44.5%	19.6%	15.5%	1.0%	4350
Piedecuesta	14.9%	54.9%	18.1%	11.4%	0.8%	1488
Pitalito	19.1%	46.7%	18.2%	15.3%	0.7%	1585
Popayán	17.8%	52.9%	15.7%	12.7%	0.9%	3099
Putumayo	22.6%	42.3%	18.5%	14.6%	2.0%	4157
Quibdó	24.9%	32.9%	21.0%	18.1%	3.1%	1327
Quindío	22.2%	41.4%	20.6%	14.3%	1.4%	2454
Riohacha	23.1%	39.2%	20.5%	15.1%	2.1%	2581
Rionegro	13.7%	55.7%	16.6%	12.7%	1.2%	1193
Risaralda	22.8%	40.6%	18.3%	16.8%	1.5%	2799
Sabaneta	10.3%	56.6%	20.0%	12.0%	1.2%	516
Sahagún	22.6%	42.4%	19.4%	13.9%	1.6%	1215
San Andrés	16.6%	48.2%	22.1%	12.4%	0.7%	548
Santa Marta	19.3%	46.8%	19.3%	13.3%	1.3%	5836
Santander	17.9%	49.3%	17.9%	14.2%	0.7%	8649
Sincelejo	18.7%	47.2%	19.5%	13.5%	1.2%	3222

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

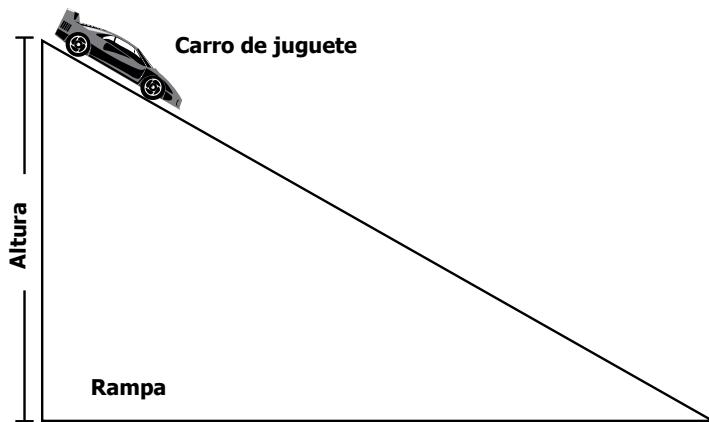
ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	17.5%	50.5%	18.7%	12.4%	0.9%	5626
Sogamoso	12.8%	60.8%	15.0%	11.1%	0.3%	1511
Soledad	19.4%	46.1%	19.2%	14.1%	1.3%	5489
Sucre	24.2%	33.5%	22.5%	18.3%	1.5%	7745
Tolima	22.7%	41.8%	18.7%	15.6%	1.3%	9697
Tuluá	19.9%	46.6%	17.0%	15.8%	0.7%	2140
Tumaco	25.3%	32.1%	21.0%	18.5%	3.0%	2367
Tunja	15.0%	59.0%	15.4%	10.1%	0.4%	1869
Turbo	26.1%	30.1%	22.1%	19.8%	1.9%	2128
Uribia	21.0%	33.9%	22.5%	19.1%	3.5%	1099
Valle del Cauca	22.0%	43.3%	17.8%	15.9%	1.0%	8455
Valledupar	19.0%	45.9%	19.3%	15.0%	0.8%	5282
Vichada	21.7%	34.9%	20.1%	20.6%	2.7%	771
Villavicencio	16.4%	51.0%	18.0%	13.2%	1.4%	5771
Yopal	16.2%	51.8%	18.4%	12.8%	0.8%	1996
Yumbo	20.8%	44.4%	19.6%	14.4%	0.8%	1256
Zipaquirá	15.4%	54.4%	17.9%	11.8%	0.5%	1282
Colombia	19.5%	46.2%	18.6%	14.3%	1.3%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• **Pregunta 14.**

Observa el siguiente montaje.



Pedro mide la altura de la rampa y le da como resultado 30, luego mide el tiempo que demora el carro de juguete en llegar al final de la rampa y obtiene 1,5. ¿Cuál de las siguientes opciones muestra las unidades de medida que debe usar Pedro para estos valores?

- A. 30 segundos y 1,5 segundos.
- B. 30 centímetros y 1,5 metros.
- C. 30 centímetros y 1,5 segundos.
- D. 30 centímetros y 1,5 centímetros.

• **Estructura**

Competencia	Indagar
Componente	Entorno físico
Afirmación	Utilizar algunas habilidades de pensamiento y de procedimiento para evaluar predicciones.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	C



GRADO 5° - CIENCIAS NATURALES

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	25.7%	22.2%	34.2%	15.1%	2.9%	974
Antioquia	22.5%	20.5%	41.8%	13.5%	1.8%	29320
Apartadó	21.3%	22.9%	41.9%	11.4%	2.5%	1767
Arauca	20.7%	18.8%	46.6%	12.6%	1.3%	2669
Armenia	20.7%	18.5%	46.9%	12.6%	1.3%	2579
Atlántico	21.3%	21.2%	40.2%	14.2%	3.2%	5983
Barrancabermeja	19.4%	19.2%	46.4%	12.8%	2.2%	2505
Barranquilla	20.7%	20.8%	45.0%	11.8%	1.7%	12394
Bello	19.6%	18.9%	48.2%	11.6%	1.6%	3830
Bogotá, D.C.	17.9%	15.9%	53.8%	10.9%	1.4%	66797
Bolívar	22.2%	24.8%	34.1%	15.9%	3.1%	11151
Boyacá	20.8%	19.5%	45.5%	13.1%	1.1%	9254
Bucaramanga	18.1%	15.5%	53.9%	11.1%	1.4%	5292
Buenaventura	21.6%	25.3%	36.6%	13.1%	3.4%	4160
Buga	20.1%	19.1%	48.2%	10.9%	1.7%	1232
Caldas	21.9%	18.9%	45.0%	13.2%	1.0%	5744
Cali	19.9%	18.3%	49.0%	11.1%	1.7%	19610
Caquetá	23.2%	22.5%	37.9%	14.8%	1.6%	3244
Cartagena	21.6%	22.1%	42.5%	11.6%	2.2%	11445
Cartago	20.8%	17.3%	44.9%	15.4%	1.6%	1275
Casanare	22.1%	19.8%	42.3%	14.3%	1.4%	3063
Cauca	22.6%	21.0%	40.2%	13.9%	2.2%	12552
Cesar	23.4%	20.8%	39.5%	14.9%	1.3%	8453
Chocó	21.2%	25.6%	33.2%	17.0%	3.0%	3820
Chía	16.2%	14.8%	56.9%	11.0%	1.2%	1455
Ciénaga	20.9%	21.1%	41.5%	13.8%	2.7%	1510
Cundinamarca	18.7%	16.1%	52.4%	11.6%	1.1%	16383
Córdoba	22.6%	23.8%	36.5%	15.2%	2.1%	13345
Cúcuta	19.7%	18.5%	48.2%	12.5%	1.1%	7402
Dosquebradas	20.2%	18.2%	49.4%	10.6%	1.5%	1853
Duitama	16.0%	14.4%	58.6%	10.4%	0.6%	1405
Envigado	16.1%	13.0%	60.6%	9.5%	0.9%	1411
Facatativá	16.0%	18.2%	54.8%	10.7%	0.3%	1404
Florencia	21.5%	18.3%	45.0%	13.5%	1.8%	2079
Floridablanca	18.1%	16.1%	53.8%	10.7%	1.3%	2598
Fusagasugá	18.3%	18.5%	51.7%	10.0%	1.5%	1236
Girardot	19.2%	22.4%	42.2%	12.9%	3.3%	901

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	19.3%	20.1%	46.7%	13.1%	0.9%	1515
Guainía	22.1%	23.0%	38.3%	14.8%	1.8%	512
Guaviare	23.2%	19.7%	41.7%	14.2%	1.2%	920
Huila	20.2%	19.5%	46.4%	12.9%	1.0%	8188
Ibagué	18.8%	16.9%	51.6%	11.8%	0.9%	5529
Ipiales	18.0%	16.1%	51.5%	13.5%	0.8%	1480
Itagüí	21.6%	17.4%	47.4%	11.8%	1.8%	2031
Jamundí	24.1%	21.1%	40.9%	12.2%	1.7%	1116
La Guajira	22.3%	22.6%	37.3%	15.3%	2.5%	3927
Lorica	20.6%	22.4%	40.9%	14.3%	1.8%	1541
Magangué	22.4%	22.7%	38.3%	14.9%	1.7%	1660
Magdalena	23.0%	24.3%	35.2%	14.9%	2.6%	9135
Maicao	19.8%	24.3%	37.6%	15.9%	2.5%	2161
Malambo	18.0%	21.8%	45.6%	12.4%	2.1%	1287
Manizales	18.6%	17.2%	52.5%	10.7%	1.1%	3133
Medellín	21.0%	19.9%	44.4%	12.7%	1.9%	20627
Meta	22.4%	20.6%	42.6%	12.7%	1.7%	6020
Montería	22.8%	23.1%	38.3%	13.9%	1.8%	5511
Mosquera	18.0%	14.3%	55.1%	11.2%	1.4%	1281
Nariño	19.9%	19.0%	46.1%	13.1%	1.9%	9241
Neiva	21.1%	19.2%	46.1%	12.1%	1.4%	3674
Norte de Santander	20.6%	18.6%	46.5%	13.2%	1.1%	8007
Palmira	18.2%	17.5%	52.2%	10.9%	1.1%	2771
Pasto	18.7%	16.2%	52.0%	12.0%	1.1%	4040
Pereira	22.0%	17.9%	47.9%	11.1%	1.1%	4350
Piedecuesta	17.5%	16.5%	51.5%	13.6%	0.9%	1488
Pitalito	22.0%	19.0%	46.7%	11.6%	0.8%	1585
Popayán	17.9%	15.9%	52.4%	12.5%	1.2%	3099
Putumayo	21.7%	20.9%	41.6%	13.7%	2.2%	4157
Quibdó	21.8%	23.1%	37.4%	14.3%	3.4%	1327
Quindío	20.5%	21.2%	42.4%	13.9%	2.0%	2454
Riohacha	22.8%	25.5%	35.2%	13.8%	2.7%	2581
Rionegro	19.5%	16.6%	54.0%	8.9%	1.0%	1193
Risaralda	21.4%	17.6%	46.6%	12.6%	1.8%	2799
Sabaneta	18.2%	18.8%	50.8%	11.0%	1.2%	516
Sahagún	22.1%	23.1%	39.1%	13.6%	2.1%	1215
San Andrés	23.4%	20.4%	43.8%	10.8%	1.6%	548
Santa Marta	21.7%	20.6%	42.9%	13.0%	1.8%	5836
Santander	19.4%	17.5%	49.2%	13.0%	0.9%	8649
Sincelejo	22.7%	20.6%	42.3%	12.8%	1.6%	3222

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	20.2%	18.8%	48.2%	11.7%	1.2%	5626
Sogamoso	17.5%	16.8%	55.7%	9.5%	0.4%	1511
Soledad	21.3%	20.1%	45.9%	11.2%	1.5%	5489
Sucre	23.0%	24.7%	35.3%	15.2%	1.7%	7745
Tolima	21.7%	20.7%	43.3%	12.8%	1.5%	9697
Tuluá	18.7%	17.7%	51.3%	11.1%	1.1%	2140
Tumaco	24.0%	26.2%	30.2%	16.0%	3.5%	2367
Tunja	16.7%	14.2%	57.7%	10.7%	0.7%	1869
Turbo	21.4%	24.2%	34.0%	17.6%	2.8%	2128
Uribia	19.7%	26.5%	30.5%	20.5%	2.8%	1099
Valle del Cauca	20.7%	19.2%	46.4%	12.3%	1.5%	8455
Valledupar	21.1%	20.6%	44.3%	12.7%	1.2%	5282
Vichada	20.9%	23.3%	37.9%	16.1%	1.8%	771
Villavicencio	19.7%	18.3%	49.1%	11.2%	1.7%	5771
Yopal	20.8%	18.4%	46.1%	13.2%	1.4%	1996
Yumbo	19.9%	19.1%	45.8%	14.3%	1.0%	1256
Zipaquirá	17.9%	15.5%	55.2%	10.8%	0.6%	1282
Colombia	20.5%	19.5%	45.6%	12.7%	1.7%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• **Pregunta 15.**

Un niño mete un juguete en la nevera para ver cómo cambia su volumen cuando baja la temperatura. Él registró los datos en la siguiente tabla pero olvidó tomar los datos a los 120 minutos.

Tiempos (minutos)	Temperatura (°C)	Volumen (cm ³)
30	30	32
60	25	16
90	20	8
120		

De acuerdo con la tabla, ¿qué datos le faltaron?

- A. 10°C y 4 cm³
- B. 15°C y 2 cm³
- C. 10°C y 2 cm³
- D. 15°C y 4 cm³

• **Estructura**

Competencia	Indagar
Componente	Entorno físico
Afirmación	Observar y relacionar patrones en los datos para evaluar las predicciones.
Nivel de desempeño	Avanzado
Respuesta Correcta	D



GRADO 5° - CIENCIAS NATURALES

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	18.4%	22.7%	24.0%	31.4%	3.5%	974
Antioquia	19.7%	21.5%	19.0%	37.8%	2.0%	29320
Apartadó	20.5%	18.7%	22.6%	35.3%	2.9%	1767
Arauca	19.0%	19.3%	20.4%	39.7%	1.6%	2669
Armenia	20.9%	20.4%	19.7%	37.5%	1.5%	2579
Atlántico	18.7%	21.6%	19.9%	36.3%	3.4%	5983
Barrancabermeja	19.8%	19.4%	17.4%	40.9%	2.5%	2505
Barranquilla	20.0%	19.9%	18.6%	39.6%	1.8%	12394
Bello	20.3%	21.1%	17.4%	39.4%	1.7%	3830
Bogotá, D.C.	18.7%	18.5%	15.6%	45.4%	1.7%	66797
Bolívar	19.7%	22.6%	22.5%	32.2%	3.0%	11151
Boyacá	19.0%	19.4%	18.4%	42.2%	1.1%	9254
Bucaramanga	20.0%	18.1%	15.4%	44.8%	1.7%	5292
Buenaventura	19.3%	21.4%	19.2%	36.7%	3.4%	4160
Buga	21.9%	20.2%	17.9%	38.4%	1.6%	1232
Caldas	19.9%	19.4%	19.8%	39.4%	1.4%	5744
Cali	19.9%	19.6%	17.1%	41.5%	1.9%	19610
Caquetá	20.3%	22.3%	20.1%	35.6%	1.7%	3244
Cartagena	21.2%	20.2%	19.1%	36.7%	2.8%	11445
Cartago	19.5%	21.3%	18.4%	39.0%	1.9%	1275
Casanare	18.5%	21.8%	18.9%	39.0%	1.8%	3063
Cauca	18.2%	20.5%	19.9%	38.7%	2.8%	12552
Cesar	19.8%	20.8%	20.5%	37.4%	1.5%	8453
Chocó	18.6%	21.6%	20.8%	36.2%	2.8%	3820
Chía	19.1%	18.1%	15.9%	45.5%	1.4%	1455
Ciénaga	20.7%	23.1%	21.2%	32.0%	3.0%	1510
Cundinamarca	18.9%	18.5%	16.7%	44.5%	1.4%	16383
Córdoba	20.0%	23.3%	22.2%	32.2%	2.3%	13345
Cúcuta	20.5%	20.1%	17.5%	40.6%	1.4%	7402
Dosquebradas	22.3%	18.5%	17.2%	40.6%	1.3%	1853
Duitama	15.1%	17.3%	15.4%	51.5%	0.8%	1405
Envigado	18.7%	17.9%	12.5%	49.5%	1.3%	1411
Facatativá	19.9%	19.3%	17.1%	43.2%	0.5%	1404
Florencia	19.8%	21.9%	20.5%	35.7%	2.1%	2079
Floridablanca	19.7%	18.4%	15.5%	44.8%	1.5%	2598
Fusagasugá	21.0%	16.6%	15.9%	43.9%	2.7%	1236
Girardot	20.2%	19.9%	15.4%	40.2%	4.3%	901

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	20.9%	19.5%	16.6%	41.4%	1.6%	1515
Guainía	21.9%	20.3%	17.6%	37.5%	2.7%	512
Guaviare	19.8%	22.7%	20.7%	35.1%	1.7%	920
Huila	19.6%	20.2%	17.6%	41.3%	1.3%	8188
Ibagué	19.0%	18.6%	16.7%	44.6%	1.2%	5529
Ipiales	19.3%	19.7%	19.2%	40.6%	1.3%	1480
Itagüí	21.0%	23.6%	18.1%	35.5%	1.8%	2031
Jamundí	19.8%	17.8%	24.3%	35.9%	2.2%	1116
La Guajira	19.7%	21.2%	20.3%	36.0%	2.8%	3927
Lorica	19.9%	20.4%	20.6%	37.6%	1.6%	1541
Magangué	22.5%	21.7%	22.3%	31.0%	2.4%	1660
Magdalena	19.3%	22.2%	21.2%	34.2%	3.0%	9135
Maicao	19.0%	22.1%	23.3%	33.0%	2.5%	2161
Malambo	18.6%	20.0%	17.2%	41.0%	3.1%	1287
Manizales	18.7%	19.8%	15.7%	44.7%	1.1%	3133
Medellín	21.1%	21.1%	19.7%	36.0%	2.0%	20627
Meta	19.6%	21.0%	20.1%	37.6%	1.8%	6020
Montería	19.8%	22.0%	22.0%	34.2%	2.1%	5511
Mosquera	18.3%	18.4%	15.9%	45.7%	1.6%	1281
Nariño	17.6%	19.7%	17.0%	43.4%	2.3%	9241
Neiva	21.0%	20.4%	17.5%	39.7%	1.4%	3674
Norte de Santander	19.7%	19.2%	18.4%	41.3%	1.4%	8007
Palmira	19.0%	20.9%	15.2%	43.8%	1.0%	2771
Pasto	20.0%	19.8%	16.6%	42.5%	1.1%	4040
Pereira	20.7%	19.8%	16.9%	40.9%	1.7%	4350
Piedecuesta	18.8%	16.9%	16.7%	46.0%	1.5%	1488
Pitalito	20.7%	20.8%	20.0%	37.8%	0.8%	1585
Popayán	19.3%	19.4%	17.4%	42.4%	1.4%	3099
Putumayo	19.4%	20.3%	20.9%	37.1%	2.3%	4157
Quibdó	20.6%	21.6%	23.5%	30.9%	3.3%	1327
Quindío	18.8%	20.9%	22.3%	35.8%	2.2%	2454
Riohacha	18.5%	21.7%	23.8%	33.3%	2.7%	2581
Rionegro	19.5%	19.1%	17.0%	43.3%	1.1%	1193
Risaralda	18.8%	19.9%	18.1%	41.1%	2.0%	2799
Sabaneta	19.6%	17.1%	15.7%	45.7%	1.9%	516
Sahagún	19.9%	20.8%	23.2%	33.7%	2.4%	1215
San Andrés	23.0%	21.7%	21.4%	32.3%	1.6%	548
Santa Marta	20.5%	20.8%	18.1%	38.5%	2.1%	5836
Santander	19.2%	18.9%	16.7%	44.4%	0.8%	8649
Sincelejo	20.0%	21.5%	19.0%	37.9%	1.6%	3222

Continúa en la siguiente página

GRADO 5° - CIENCIAS NATURALES

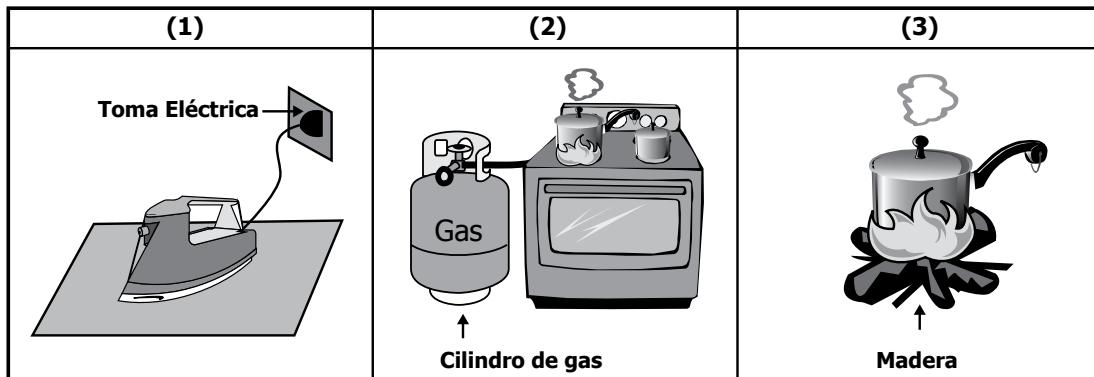
ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	19.7%	20.2%	17.6%	41.3%	1.2%	5626
Sogamoso	19.5%	17.3%	16.0%	46.1%	1.0%	1511
Soledad	20.5%	20.4%	18.1%	39.2%	1.7%	5489
Sucre	21.2%	21.5%	22.3%	32.8%	2.3%	7745
Tolima	18.4%	20.1%	19.6%	40.0%	2.0%	9697
Tuluá	22.0%	18.0%	18.1%	40.6%	1.3%	2140
Tumaco	19.6%	23.3%	23.8%	29.7%	3.6%	2367
Tunja	18.9%	17.3%	13.8%	49.2%	0.7%	1869
Turbo	21.2%	23.8%	22.9%	30.2%	1.9%	2128
Uribia	19.4%	23.5%	20.4%	33.0%	3.7%	1099
Valle del Cauca	19.5%	20.2%	19.2%	39.6%	1.5%	8455
Valledupar	20.3%	19.9%	18.3%	39.9%	1.6%	5282
Vichada	21.4%	20.5%	21.5%	34.2%	2.3%	771
Villavicencio	20.5%	19.1%	17.6%	40.8%	2.0%	5771
Yopal	21.6%	19.0%	18.4%	39.1%	1.8%	1996
Yumbo	21.5%	21.7%	17.7%	37.8%	1.3%	1256
Zipaquirá	17.5%	18.1%	15.4%	48.4%	0.6%	1282
Colombia	19.6%	20.2%	18.5%	39.8%	1.9%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• **Pregunta 16.**

Pablo llevó los siguientes dibujos a su clase de Ciencias para ilustrar algunas fuentes de energía.



¿Cuáles fuentes de energía están representadas en cada dibujo?

- A. (1) Electricidad - (2) llama - (3) llama.
- B. (1) Electricidad - (2) gas - (3) madera.
- C. (1) Calor - (2) llama - (3) llama.
- D. (1) Calor - (2) gas - (3) madera.

• **Estructura**

Competencia	Uso comprensivo del conocimiento científico
Componente	Entorno físico
Afirmación	Comprender que existen diversas fuentes y formas de energía y que ésta se transforma continuamente.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	B

GRADO 5° - CIENCIAS NATURALES

- Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	19.8%	45.5%	13.4%	18.2%	3.1%	974
Antioquia	16.7%	52.4%	13.3%	15.8%	1.9%	29320
Apartadó	18.9%	50.5%	12.1%	16.1%	2.4%	1767
Arauca	16.0%	53.2%	13.1%	16.3%	1.4%	2669
Armenia	15.7%	55.6%	12.8%	14.6%	1.2%	2579
Atlántico	18.0%	46.9%	14.9%	16.9%	3.3%	5983
Barrancabermeja	14.8%	58.6%	10.5%	14.3%	1.8%	2505
Barranquilla	15.9%	54.9%	12.5%	15.0%	1.7%	12394
Bello	16.4%	55.6%	11.6%	15.1%	1.3%	3830
Bogotá, D.C.	12.4%	62.2%	10.4%	13.4%	1.5%	66797
Bolívar	20.0%	43.1%	16.7%	17.0%	3.1%	11151
Boyacá	14.6%	57.4%	12.6%	14.4%	1.0%	9254
Bucaramanga	12.3%	62.9%	10.2%	13.1%	1.5%	5292
Buenaventura	19.4%	50.0%	12.9%	14.8%	2.9%	4160
Buga	13.5%	59.7%	10.8%	15.0%	1.1%	1232
Caldas	15.5%	55.1%	12.6%	15.6%	1.2%	5744
Cali	14.0%	58.7%	11.2%	14.3%	1.8%	19610
Caquetá	19.2%	49.4%	14.8%	14.8%	1.7%	3244
Cartagena	16.7%	53.2%	13.2%	14.6%	2.3%	11445
Cartago	14.1%	56.8%	12.1%	15.6%	1.4%	1275
Casanare	15.6%	55.8%	12.9%	14.1%	1.6%	3063
Cauca	17.8%	50.0%	13.1%	16.5%	2.6%	12552
Cesar	17.9%	49.0%	14.6%	17.2%	1.3%	8453
Chocó	20.4%	43.7%	15.7%	17.4%	2.8%	3820
Chía	11.1%	64.3%	9.6%	14.0%	1.0%	1455
Ciénaga	16.6%	46.7%	17.5%	16.3%	3.0%	1510
Cundinamarca	12.9%	60.5%	11.1%	14.4%	1.1%	16383
Córdoba	19.1%	45.3%	15.7%	17.8%	2.1%	13345
Cúcuta	15.4%	57.6%	11.7%	14.0%	1.3%	7402
Dosquebradas	15.4%	56.8%	9.8%	16.3%	1.7%	1853
Duitama	12.2%	64.6%	10.6%	12.0%	0.6%	1405
Envigado	12.8%	61.4%	11.6%	13.5%	0.7%	1411
Facatativá	13.2%	64.8%	9.7%	11.8%	0.5%	1404
Florencia	16.9%	54.0%	12.5%	15.2%	1.5%	2079
Floridablanca	11.6%	63.4%	10.3%	13.5%	1.2%	2598
Fusagasugá	11.6%	63.6%	9.6%	13.4%	1.8%	1236
Girardot	13.9%	55.7%	9.5%	17.5%	3.3%	901

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	14.2%	57.2%	13.1%	14.5%	1.0%	1515
Guainía	16.0%	51.0%	9.6%	20.7%	2.7%	512
Guaviare	15.4%	52.7%	12.3%	17.5%	2.1%	920
Huila	14.4%	56.4%	11.9%	16.3%	1.0%	8188
Ibagué	13.3%	62.0%	10.7%	13.1%	0.9%	5529
Ipiales	14.3%	59.7%	11.4%	13.6%	1.0%	1480
Itagüí	15.7%	53.7%	14.6%	14.0%	2.0%	2031
Jamundí	16.0%	54.0%	12.6%	15.4%	1.9%	1116
La Guajira	17.2%	49.5%	13.9%	16.9%	2.4%	3927
Lorica	17.8%	50.4%	15.5%	14.7%	1.6%	1541
Magangué	19.7%	44.8%	15.8%	17.5%	2.3%	1660
Magdalena	20.0%	43.2%	15.8%	18.0%	3.0%	9135
Maicao	17.9%	49.0%	14.2%	16.6%	2.3%	2161
Malambo	14.5%	52.6%	14.5%	16.3%	2.0%	1287
Manizales	14.0%	60.3%	10.6%	14.1%	0.9%	3133
Medellín	15.7%	53.5%	14.0%	15.0%	1.8%	20627
Meta	15.8%	52.9%	13.4%	16.0%	1.8%	6020
Montería	17.9%	49.8%	14.4%	16.1%	1.9%	5511
Mosquera	12.0%	63.4%	9.3%	13.7%	1.6%	1281
Nariño	15.4%	56.2%	11.8%	14.7%	2.0%	9241
Neiva	15.0%	56.8%	12.6%	14.1%	1.5%	3674
Norte de Santander	15.3%	56.4%	12.5%	14.8%	1.1%	8007
Palmira	12.5%	60.2%	10.5%	15.5%	1.3%	2771
Pasto	13.5%	60.3%	10.8%	14.3%	1.1%	4040
Pereira	15.1%	56.7%	11.7%	15.1%	1.4%	4350
Piedecuesta	13.2%	60.3%	11.8%	13.4%	1.3%	1488
Pitalito	16.3%	55.3%	12.9%	14.8%	0.8%	1585
Popayán	14.1%	58.7%	11.1%	14.8%	1.3%	3099
Putumayo	17.6%	51.4%	14.1%	14.6%	2.3%	4157
Quibdó	20.4%	47.6%	13.0%	15.9%	3.1%	1327
Quindío	16.1%	51.9%	14.4%	15.8%	1.8%	2454
Riohacha	18.3%	47.0%	14.7%	17.4%	2.6%	2581
Rionegro	14.2%	57.8%	12.0%	15.2%	0.8%	1193
Risaralda	15.4%	54.3%	12.2%	16.3%	1.9%	2799
Sabaneta	11.8%	60.7%	11.6%	14.5%	1.4%	516
Sahagún	15.2%	53.4%	14.3%	15.5%	1.6%	1215
San Andrés	17.3%	53.8%	15.5%	12.4%	0.9%	548
Santa Marta	16.3%	54.1%	13.1%	14.6%	1.9%	5836
Santander	13.8%	58.3%	12.1%	14.9%	0.9%	8649
Sincelejo	16.3%	53.0%	13.6%	15.5%	1.7%	3222

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	13.7%	60.7%	10.4%	14.2%	1.1%	5626
Sogamoso	13.6%	61.3%	11.1%	13.4%	0.7%	1511
Soledad	15.6%	54.7%	12.2%	15.8%	1.7%	5489
Sucre	20.0%	46.8%	14.7%	17.0%	1.6%	7745
Tolima	15.5%	53.8%	12.9%	16.1%	1.7%	9697
Tuluá	14.3%	57.6%	11.3%	15.6%	1.2%	2140
Tumaco	20.2%	39.8%	18.1%	18.5%	3.5%	2367
Tunja	12.5%	63.1%	10.1%	13.6%	0.7%	1869
Turbo	20.8%	42.2%	16.3%	18.1%	2.6%	2128
Uribia	16.7%	40.5%	17.7%	21.0%	4.1%	1099
Valle del Cauca	16.2%	55.3%	11.9%	15.3%	1.3%	8455
Valledupar	16.3%	54.6%	12.3%	15.6%	1.1%	5282
Vichada	15.4%	48.8%	13.1%	20.0%	2.7%	771
Villavicencio	14.2%	57.3%	12.0%	14.8%	1.6%	5771
Yopal	13.3%	58.1%	11.8%	15.2%	1.7%	1996
Yumbo	16.8%	57.7%	10.6%	13.5%	1.4%	1256
Zipaquirá	11.0%	65.2%	10.5%	12.8%	0.5%	1282
Colombia	15.5%	55.1%	12.6%	15.2%	1.7%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• Pregunta 17.

Juan agrega agua y aceite a un frasco transparente y observa que el aceite queda flotando sobre el agua sin mezclarse. En otro frasco agrega agua y alcohol y observa que los dos líquidos se mezclan, y forman una mezcla homogénea. Si Juan agrega, en otro frasco, agua, alcohol y aceite, ¿qué podrá observar?

- A. El aceite queda en el fondo, el alcohol en el medio y en la superficie el agua.
- B. El aceite se mezcla con el alcohol y quedan dos líquidos transparentes.
- C. Los tres compuestos utilizados forman una mezcla homogénea.
- D. Se forma una mezcla homogénea entre el agua y el alcohol, y el aceite flota sobre la mezcla.

• Estructura

Competencia	Indagar
Componente	Entorno físico
Afirmación	Utilizar algunas habilidades de pensamiento y de procedimiento para evaluar predicciones.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	D

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	17.1%	16.2%	25.2%	38.5%	3.0%	974
Antioquia	16.5%	15.1%	22.9%	43.7%	1.8%	29320
Apartadó	17.9%	14.0%	21.7%	43.6%	2.8%	1767
Arauca	15.7%	15.0%	22.0%	45.7%	1.6%	2669
Armenia	18.1%	14.0%	23.1%	43.2%	1.7%	2579
Atlántico	16.9%	15.7%	21.8%	42.3%	3.2%	5983
Barrancabermeja	17.3%	13.1%	21.7%	46.1%	1.8%	2505
Barranquilla	18.3%	14.4%	20.5%	45.2%	1.7%	12394
Bello	18.6%	15.0%	19.8%	45.1%	1.5%	3830
Bogotá, D.C.	17.7%	12.2%	20.1%	48.4%	1.7%	66797
Bolívar	17.1%	17.7%	23.2%	39.3%	2.8%	11151
Boyacá	14.7%	15.5%	24.0%	44.7%	1.1%	9254
Bucaramanga	17.3%	11.5%	19.8%	49.6%	1.7%	5292
Buenaventura	16.3%	14.5%	21.8%	44.4%	3.0%	4160
Buga	15.4%	14.8%	20.5%	47.9%	1.4%	1232
Caldas	15.2%	14.6%	22.5%	46.5%	1.3%	5744

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Cali	17.6%	13.2%	19.4%	48.0%	1.8%	19610
Caquetá	15.3%	17.3%	24.0%	41.6%	1.8%	3244
Cartagena	19.5%	14.2%	19.4%	44.6%	2.3%	11445
Cartago	20.2%	14.6%	21.0%	42.2%	2.0%	1275
Casanare	17.3%	15.0%	23.7%	42.2%	1.7%	3063
Cauca	13.6%	16.3%	21.6%	45.8%	2.6%	12552
Cesar	16.0%	15.8%	21.8%	45.1%	1.3%	8453
Chocó	16.9%	16.9%	22.0%	41.4%	2.8%	3820
Chía	15.3%	13.3%	17.1%	52.9%	1.4%	1455
Ciénaga	17.8%	14.8%	21.3%	42.9%	3.1%	1510
Cundinamarca	15.0%	13.2%	21.9%	48.7%	1.2%	16383
Córdoba	17.2%	16.4%	24.2%	40.4%	1.7%	13345
Cúcuta	18.2%	14.6%	21.6%	44.3%	1.3%	7402
Dosquebradas	17.5%	13.5%	22.5%	44.7%	1.8%	1853
Duitama	15.5%	11.2%	19.7%	53.0%	0.6%	1405
Envigado	19.6%	11.8%	16.8%	51.2%	0.6%	1411
Facatativá	17.0%	12.5%	19.4%	50.6%	0.5%	1404
Florencia	15.7%	15.9%	23.7%	43.2%	1.5%	2079
Floridablanca	17.2%	10.9%	18.4%	52.0%	1.5%	2598
Fusagasugá	16.0%	13.6%	20.6%	47.4%	2.3%	1236
Girardot	18.8%	10.8%	22.4%	44.5%	3.6%	901
Girón	18.7%	15.0%	23.6%	41.4%	1.3%	1515
Guainía	13.7%	16.4%	22.9%	43.2%	3.9%	512
Guaviare	17.5%	15.2%	22.6%	42.5%	2.2%	920
Huila	14.6%	15.2%	23.6%	45.5%	1.0%	8188
Ibagué	15.8%	13.1%	20.5%	49.5%	1.0%	5529
Ipiales	16.8%	14.6%	20.7%	46.8%	1.2%	1480
Itagüí	20.9%	15.0%	21.3%	41.2%	1.6%	2031
Jamundí	18.6%	14.4%	21.2%	43.9%	1.8%	1116
La Guajira	17.6%	16.1%	20.6%	43.5%	2.2%	3927
Lorica	16.1%	16.4%	21.7%	44.1%	1.7%	1541
Magangué	18.6%	17.1%	24.5%	38.1%	1.6%	1660
Magdalena	16.6%	16.4%	21.8%	42.5%	2.7%	9135
Maicao	18.8%	15.7%	22.8%	40.4%	2.3%	2161
Malambo	17.5%	13.1%	19.3%	47.6%	2.6%	1287
Manizales	17.6%	12.0%	20.1%	49.2%	1.1%	3133
Medellín	20.1%	14.9%	21.6%	41.7%	1.6%	20627
Meta	17.3%	15.4%	23.7%	42.0%	1.7%	6020
Montería	18.8%	15.5%	22.4%	41.8%	1.6%	5511
Mosquera	15.7%	11.9%	20.2%	50.6%	1.6%	1281

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ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Nariño	13.4%	14.6%	20.2%	49.8%	2.0%	9241
Neiva	18.1%	14.6%	22.0%	43.8%	1.5%	3674
Norte de Santander	15.2%	14.6%	20.8%	48.2%	1.1%	8007
Palmira	17.6%	13.1%	17.9%	50.1%	1.3%	2771
Pasto	16.1%	13.9%	20.1%	48.6%	1.3%	4040
Pereira	18.5%	13.8%	22.0%	44.4%	1.3%	4350
Piedecuesta	17.2%	12.8%	19.2%	49.9%	0.9%	1488
Pitalito	16.8%	16.3%	26.4%	39.9%	0.6%	1585
Popayán	15.5%	13.3%	20.7%	49.4%	1.2%	3099
Putumayo	14.7%	15.3%	24.8%	43.2%	1.9%	4157
Quibdó	18.8%	13.9%	21.5%	42.6%	3.3%	1327
Quindío	17.1%	15.0%	22.9%	43.2%	1.8%	2454
Riohacha	18.9%	17.0%	21.7%	40.0%	2.4%	2581
Rionegro	17.9%	13.8%	21.8%	45.1%	1.3%	1193
Risaralda	15.6%	14.6%	23.1%	44.9%	1.8%	2799
Sabaneta	20.3%	12.8%	20.9%	44.2%	1.7%	516
Sahagún	17.8%	15.8%	23.3%	41.5%	1.6%	1215
San Andrés	18.1%	16.4%	25.2%	38.7%	1.6%	548
Santa Marta	18.3%	13.9%	21.4%	44.6%	1.8%	5836
Santander	14.5%	13.9%	21.9%	48.7%	1.1%	8649
Sincelejo	17.5%	14.1%	22.8%	44.3%	1.3%	3222
Soacha	17.6%	13.7%	22.3%	45.3%	1.1%	5626
Sogamoso	17.0%	12.9%	20.6%	48.5%	0.9%	1511
Soledad	18.0%	13.7%	19.5%	47.1%	1.7%	5489
Sucre	16.5%	16.8%	24.0%	41.2%	1.5%	7745
Tolima	15.4%	15.2%	23.4%	44.3%	1.7%	9697
Tuluá	14.9%	14.5%	22.1%	47.4%	1.1%	2140
Tumaco	19.1%	18.0%	21.8%	37.8%	3.3%	2367
Tunja	14.6%	12.8%	21.1%	50.5%	1.1%	1869
Turbo	18.2%	17.1%	24.5%	38.2%	2.1%	2128
Uribia	18.8%	17.5%	22.9%	36.9%	3.8%	1099
Valle del Cauca	15.5%	14.3%	22.0%	47.0%	1.2%	8455
Valledupar	17.3%	13.7%	18.9%	48.8%	1.3%	5282
Vichada	16.3%	16.3%	26.1%	39.0%	2.2%	771
Villavicencio	18.4%	13.6%	21.2%	44.9%	2.0%	5771
Yopal	18.6%	15.5%	23.8%	40.9%	1.3%	1996
Yumbo	17.4%	14.7%	22.8%	44.3%	0.9%	1256
Zipaquirá	17.0%	10.5%	18.9%	52.7%	1.0%	1282
Colombia	17.0%	14.4%	21.6%	45.3%	1.7%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



GRADO 5° - CIENCIAS NATURALES

• Pregunta 18.

* ¿Cuál de las siguientes actividades te ayudaría a prevenir enfermedades intestinales?

- A. Lavarse el cabello todos los días.
- B. Bañarse con agua caliente todos los días.
- C. Lavarse las manos antes de comer.
- D. Bañarse una sola vez por semana.

* -Pregunta modificada respecto a su versión original.

• Estructura

Competencia	Uso comprensivo del conocimiento científico
Componente	Cts
Afirmación	Valorar y comprender la necesidad de seguir hábitos para mantener la salud y el entorno.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	C

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	10.2%	17.9%	55.6%	13.0%	3.3%	974
Antioquia	7.5%	14.1%	67.8%	8.9%	1.7%	29320
Apartadó	8.1%	16.5%	61.8%	11.0%	2.6%	1767
Arauca	7.9%	15.4%	66.5%	9.3%	0.9%	2669
Armenia	8.2%	13.6%	68.7%	7.9%	1.6%	2579
Atlántico	10.2%	17.7%	58.5%	10.6%	3.0%	5983
Barrancabermeja	7.8%	14.7%	67.1%	8.4%	2.0%	2505
Barranquilla	8.5%	15.0%	64.7%	10.2%	1.7%	12394
Bello	6.7%	12.1%	71.8%	7.9%	1.5%	3830
Bogotá, D.C.	6.0%	11.6%	74.9%	5.9%	1.6%	66797
Bolívar	11.4%	18.8%	55.0%	12.2%	2.7%	11151
Boyacá	6.7%	13.1%	71.6%	7.7%	0.9%	9254
Bucaramanga	6.4%	11.3%	74.5%	6.2%	1.5%	5292
Buenaventura	9.0%	16.9%	59.4%	11.8%	2.9%	4160
Buga	7.1%	12.2%	72.6%	6.9%	1.2%	1232
Caldas	6.8%	12.8%	72.6%	7.0%	0.9%	5744

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Cali	6.8%	12.2%	72.3%	7.0%	1.7%	19610
Caquetá	9.6%	15.6%	63.3%	9.9%	1.5%	3244
Cartagena	9.2%	16.5%	61.6%	10.6%	2.2%	11445
Cartago	8.0%	12.1%	70.9%	7.4%	1.6%	1275
Casanare	9.1%	13.4%	66.2%	9.5%	1.7%	3063
Cauca	7.2%	14.1%	67.7%	8.7%	2.5%	12552
Cesar	8.6%	15.6%	64.1%	10.6%	1.1%	8453
Chocó	10.9%	18.8%	55.7%	12.1%	2.4%	3820
Chía	5.7%	11.1%	76.8%	5.6%	0.8%	1455
Ciénaga	8.7%	18.7%	59.5%	10.4%	2.6%	1510
Cundinamarca	6.5%	12.2%	74.0%	6.3%	1.0%	16383
Córdoba	10.8%	17.0%	58.8%	11.7%	1.7%	13345
Cúcuta	8.2%	12.4%	69.9%	8.3%	1.1%	7402
Dosquebradas	7.2%	10.4%	74.3%	6.5%	1.5%	1853
Duitama	5.1%	11.2%	78.1%	4.9%	0.6%	1405
Envigado	5.7%	10.4%	77.9%	5.0%	0.9%	1411
Facatativá	6.8%	11.8%	76.1%	5.0%	0.4%	1404
Florencia	9.2%	16.2%	65.3%	8.0%	1.3%	2079
Floridablanca	5.9%	11.2%	75.6%	6.0%	1.3%	2598
Fusagasugá	6.7%	10.7%	75.0%	5.7%	1.9%	1236
Girardot	9.3%	15.0%	62.5%	9.5%	3.7%	901
Girón	7.9%	14.2%	69.8%	6.9%	1.2%	1515
Guainía	7.4%	12.3%	68.8%	8.4%	3.1%	512
Guaviare	9.7%	12.1%	66.8%	9.5%	2.0%	920
Huila	7.0%	13.6%	70.7%	7.9%	0.8%	8188
Ibagué	6.9%	11.8%	74.3%	6.2%	0.8%	5529
Ipiales	6.1%	14.0%	71.8%	7.2%	0.9%	1480
Itagüí	7.2%	16.7%	66.4%	8.3%	1.4%	2031
Jamundí	9.6%	15.8%	65.0%	7.6%	2.1%	1116
La Guajira	10.5%	17.5%	60.4%	9.7%	1.9%	3927
Lorica	8.8%	17.2%	60.4%	12.4%	1.3%	1541
Magangué	11.6%	18.8%	54.5%	13.2%	1.9%	1660
Magdalena	10.0%	16.7%	59.8%	11.0%	2.6%	9135
Maicao	10.6%	17.1%	59.6%	10.7%	2.1%	2161
Malambo	7.5%	17.5%	61.7%	11.3%	1.9%	1287
Manizales	6.3%	10.9%	75.6%	6.3%	1.0%	3133
Medellín	8.8%	15.9%	65.9%	7.9%	1.6%	20627
Meta	8.6%	15.3%	65.5%	8.9%	1.7%	6020
Montería	9.2%	17.6%	60.1%	11.3%	1.8%	5511
Mosquera	5.2%	10.2%	76.1%	6.6%	1.9%	1281

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Nariño	6.0%	12.3%	72.5%	7.6%	1.6%	9241
Neiva	8.2%	14.9%	68.2%	7.5%	1.3%	3674
Norte de Santander	7.5%	11.7%	72.2%	7.6%	1.0%	8007
Palmira	6.4%	11.5%	74.3%	6.9%	0.9%	2771
Pasto	5.5%	12.1%	75.5%	5.8%	1.1%	4040
Pereira	6.6%	11.2%	74.6%	6.1%	1.5%	4350
Piedecuesta	5.6%	13.8%	72.2%	6.9%	1.4%	1488
Pitalito	6.1%	14.2%	72.1%	6.9%	0.7%	1585
Popayán	5.8%	11.5%	75.3%	6.3%	1.2%	3099
Putumayo	7.9%	14.8%	66.8%	8.3%	2.2%	4157
Quibdó	10.4%	17.6%	56.2%	13.0%	2.9%	1327
Quindío	8.4%	13.6%	69.8%	6.4%	1.8%	2454
Riohacha	10.9%	17.0%	59.7%	10.0%	2.4%	2581
Rionegro	5.8%	10.4%	76.9%	6.0%	1.0%	1193
Risaralda	7.5%	11.5%	72.3%	7.2%	1.5%	2799
Sabaneta	5.6%	10.1%	77.1%	6.0%	1.2%	516
Sahagún	9.1%	15.1%	64.0%	10.0%	2.0%	1215
San Andrés	10.4%	20.3%	60.4%	7.7%	1.3%	548
Santa Marta	9.5%	14.2%	65.1%	9.2%	1.9%	5836
Santander	6.8%	10.9%	73.8%	7.6%	1.0%	8649
Sincelejo	9.1%	16.0%	63.3%	10.6%	1.1%	3222
Soacha	6.2%	14.5%	71.5%	6.6%	1.3%	5626
Sogamoso	6.3%	13.4%	74.4%	5.4%	0.6%	1511
Soledad	7.3%	16.1%	65.1%	9.9%	1.6%	5489
Sucre	10.4%	18.3%	57.5%	12.3%	1.5%	7745
Tolima	7.7%	13.7%	68.8%	8.2%	1.6%	9697
Tuluá	7.6%	12.0%	72.2%	7.0%	1.2%	2140
Tumaco	12.0%	21.5%	49.8%	13.7%	2.9%	2367
Tunja	6.8%	9.7%	77.0%	5.9%	0.6%	1869
Turbo	12.4%	19.5%	53.2%	12.6%	2.3%	2128
Uribia	12.5%	17.3%	57.1%	10.2%	3.0%	1099
Valle del Cauca	7.3%	13.5%	70.9%	7.2%	1.1%	8455
Valledupar	8.6%	14.3%	66.4%	9.5%	1.2%	5282
Vichada	10.5%	12.7%	64.1%	10.6%	2.1%	771
Villavicencio	7.8%	14.5%	68.0%	8.0%	1.8%	5771
Yopal	8.4%	12.2%	70.5%	7.7%	1.3%	1996
Yumbo	8.0%	12.4%	72.1%	6.6%	0.8%	1256
Zipaquirá	5.8%	11.6%	75.9%	6.2%	0.5%	1282
Colombia	7.8%	14.0%	68.3%	8.3%	1.6%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



- **Pregunta 19.**

En una tienda se les pidió a los clientes que llevaran sus compras en bolsas de tela reutilizables, en lugar de usar bolsas de plástico o de papel. ¿Qué ventaja traería para el ambiente si todas las tiendas y supermercados hicieran lo mismo?

- A. Se conservarían mejor los alimentos en las bolsas de tela.
- B. La tela se demoraría más tiempo en biodegradarse que el papel o que el plástico.
- C. Se reduciría la tala de árboles para fabricar papel y la contaminación por plástico.
- D. Se crearían muchos empleos en la industria de la tela.

- **Estructura**

Competencia	Uso comprensivo del conocimiento científico
Componente	Cts
Afirmación	Valorar y comprender la necesidad de seguir hábitos para mantener la salud y el entorno.
Nivel de desempeño	Avanzado
Respuesta Correcta	C

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	24.5%	23.6%	29.1%	18.3%	4.5%	974
Antioquia	21.5%	22.5%	37.2%	16.7%	2.1%	29320
Apartadó	24.1%	24.1%	31.4%	17.4%	3.0%	1767
Arauca	18.6%	22.9%	38.7%	18.6%	1.2%	2669
Armenia	18.4%	23.8%	43.2%	12.5%	2.1%	2579
Atlántico	21.7%	23.3%	33.7%	17.5%	3.9%	5983
Barrancabermeja	20.3%	22.4%	39.6%	15.4%	2.3%	2505
Barranquilla	22.7%	23.4%	37.5%	14.5%	1.9%	12394
Bello	18.3%	23.7%	42.6%	13.4%	1.9%	3830
Bogotá, D.C.	16.3%	21.8%	49.0%	11.0%	2.0%	66797
Bolívar	23.7%	25.5%	28.8%	18.8%	3.3%	11151
Boyacá	18.8%	24.0%	40.0%	15.9%	1.3%	9254
Bucaramanga	16.9%	20.9%	48.6%	11.6%	2.0%	5292
Buenaventura	22.7%	23.5%	33.9%	16.6%	3.3%	4160
Buga	18.5%	25.9%	41.1%	13.1%	1.4%	1232
Caldas	19.2%	23.1%	39.8%	16.5%	1.4%	5744

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Cali	19.2%	22.1%	44.3%	12.6%	1.9%	19610
Caquetá	21.3%	24.1%	33.9%	18.9%	1.8%	3244
Cartagena	21.7%	23.1%	38.3%	13.9%	2.9%	11445
Cartago	21.6%	22.2%	39.1%	15.5%	1.6%	1275
Casanare	19.8%	23.8%	38.3%	16.3%	1.9%	3063
Cauca	19.9%	20.6%	38.4%	18.5%	2.6%	12552
Cesar	22.7%	23.1%	34.0%	18.8%	1.4%	8453
Chocó	23.3%	23.5%	30.1%	19.9%	3.2%	3820
Chía	12.9%	21.7%	55.7%	8.2%	1.5%	1455
Ciénaga	23.1%	20.0%	34.8%	18.5%	3.6%	1510
Cundinamarca	16.7%	22.4%	46.0%	13.7%	1.2%	16383
Córdoba	22.9%	24.6%	30.5%	19.8%	2.3%	13345
Cúcuta	20.5%	24.2%	40.2%	13.6%	1.5%	7402
Dosquebradas	20.1%	22.5%	42.5%	12.6%	2.3%	1853
Duitama	14.0%	19.7%	54.9%	10.5%	1.0%	1405
Envigado	12.5%	20.1%	58.2%	8.0%	1.2%	1411
Facatativá	16.0%	23.9%	46.8%	12.7%	0.6%	1404
Florencia	21.3%	20.9%	38.5%	17.4%	1.9%	2079
Floridablanca	16.0%	21.6%	50.2%	10.6%	1.7%	2598
Fusagasugá	15.7%	22.3%	47.3%	12.0%	2.7%	1236
Girardot	21.8%	22.1%	38.5%	13.1%	4.6%	901
Girón	20.3%	25.0%	40.4%	12.9%	1.5%	1515
Guainía	24.6%	22.7%	31.1%	18.9%	2.7%	512
Guaviare	21.2%	22.8%	35.5%	18.6%	1.8%	920
Huila	20.6%	22.3%	37.8%	17.8%	1.4%	8188
Ibagué	17.2%	22.4%	45.8%	13.4%	1.2%	5529
Ipiales	20.2%	21.1%	45.2%	12.0%	1.4%	1480
Itagüí	19.4%	23.6%	42.9%	12.3%	1.8%	2031
Jamundí	20.3%	23.9%	38.0%	15.3%	2.4%	1116
La Guajira	22.1%	23.2%	33.7%	18.4%	2.6%	3927
Lorica	23.9%	19.7%	35.9%	18.8%	1.7%	1541
Magangué	22.5%	24.5%	31.3%	18.8%	2.9%	1660
Magdalena	22.3%	24.6%	30.7%	19.2%	3.1%	9135
Maicao	23.7%	27.1%	29.9%	17.1%	2.2%	2161
Malambo	24.0%	19.3%	36.9%	17.3%	2.4%	1287
Manizales	17.1%	22.4%	47.1%	12.2%	1.2%	3133
Medellín	19.5%	23.9%	41.4%	13.1%	2.1%	20627
Meta	21.1%	22.9%	37.3%	17.0%	1.7%	6020
Montería	22.0%	24.8%	34.1%	16.7%	2.4%	5511
Mosquera	16.2%	20.2%	50.3%	11.2%	2.0%	1281

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ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Nariño	18.9%	19.6%	42.9%	16.6%	2.0%	9241
Neiva	20.2%	23.6%	40.3%	14.2%	1.7%	3674
Norte de Santander	19.3%	22.2%	41.1%	16.0%	1.4%	8007
Palmira	18.5%	21.0%	47.4%	11.8%	1.3%	2771
Pasto	16.5%	21.6%	48.8%	11.9%	1.3%	4040
Pereira	18.8%	22.3%	43.9%	13.1%	2.0%	4350
Piedecuesta	16.4%	20.8%	49.7%	11.9%	1.3%	1488
Pitalito	20.1%	24.7%	38.5%	15.8%	0.9%	1585
Popayán	17.9%	20.9%	48.0%	11.7%	1.5%	3099
Putumayo	20.1%	22.7%	37.6%	17.1%	2.5%	4157
Quibdó	20.3%	24.3%	33.4%	18.6%	3.5%	1327
Quindío	19.1%	23.8%	39.4%	15.4%	2.3%	2454
Riohacha	23.2%	24.3%	33.3%	16.4%	2.8%	2581
Rionegro	16.0%	23.1%	47.1%	12.5%	1.3%	1193
Risaralda	19.7%	21.1%	40.4%	17.0%	1.8%	2799
Sabaneta	17.8%	21.9%	48.4%	10.5%	1.4%	516
Sahagún	21.6%	22.7%	33.5%	20.2%	1.9%	1215
San Andrés	19.5%	25.9%	37.6%	14.6%	2.4%	548
Santa Marta	20.1%	24.1%	38.7%	15.1%	2.0%	5836
Santander	17.2%	21.6%	44.3%	15.7%	1.1%	8649
Sincelejo	19.9%	24.4%	38.9%	15.4%	1.4%	3222
Soacha	19.5%	23.3%	44.1%	11.6%	1.5%	5626
Sogamoso	15.9%	21.8%	51.2%	10.6%	0.5%	1511
Soledad	21.3%	23.3%	38.1%	15.1%	2.2%	5489
Sucre	23.4%	25.2%	30.3%	19.3%	1.8%	7745
Tolima	20.5%	22.5%	37.4%	17.8%	1.9%	9697
Tuluá	18.8%	22.7%	44.0%	13.0%	1.5%	2140
Tumaco	23.7%	22.2%	30.7%	19.7%	3.6%	2367
Tunja	13.6%	23.6%	51.6%	10.2%	0.9%	1869
Turbo	24.2%	25.2%	27.4%	20.5%	2.6%	2128
Uribia	24.7%	28.2%	24.7%	19.4%	3.0%	1099
Valle del Cauca	19.1%	23.0%	40.1%	16.1%	1.7%	8455
Valledupar	21.2%	22.7%	38.5%	16.0%	1.5%	5282
Vichada	21.4%	24.4%	29.6%	21.3%	3.4%	771
Villavicencio	18.6%	22.0%	43.5%	13.8%	2.0%	5771
Yopal	18.6%	23.1%	42.8%	13.8%	1.7%	1996
Yumbo	20.2%	23.9%	39.5%	15.1%	1.3%	1256
Zipaquirá	16.4%	21.3%	50.2%	11.2%	0.9%	1282
Colombia	19.7%	22.8%	40.6%	15.0%	2.0%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• Pregunta 20.

En los hospitales y laboratorios es obligatorio que médicos y enfermeras utilicen guantes de caucho todo el tiempo y luego de su uso se boten y se destruyan. Es necesario que estos guantes sean de caucho y no de otro material, porque

- A. el caucho evita que las personas se hieran con jeringas o bisturíes.
- B. en caso de incendio el caucho resiste altas temperaturas.
- C. el caucho evita que las sustancias contaminadas toquen la piel de las personas.
- D. el caucho permite sostener mejor los instrumentos médicos sin que resbalen.

• Estructura

Competencia	Explicación de fenómenos
Componente	Cts
Afirmación	Comprender el funcionamiento de diferentes objetos a partir de sus usos y propiedades.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	C

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	15.7%	15.4%	41.7%	23.3%	3.9%	974
Antioquia	15.5%	14.2%	48.7%	19.3%	2.2%	29320
Apartadó	16.1%	14.2%	49.3%	17.9%	2.5%	1767
Arauca	14.3%	15.2%	50.7%	18.3%	1.5%	2669
Armenia	15.6%	13.7%	51.6%	17.3%	1.7%	2579
Atlántico	16.6%	15.9%	44.1%	19.9%	3.5%	5983
Barrancabermeja	14.6%	13.2%	54.4%	15.2%	2.6%	2505
Barranquilla	15.6%	13.9%	51.5%	17.0%	2.1%	12394
Bello	15.1%	13.1%	54.7%	15.6%	1.5%	3830
Bogotá, D.C.	13.2%	11.6%	58.5%	14.7%	2.0%	66797
Bolívar	18.2%	18.3%	39.0%	21.1%	3.4%	11151
Boyacá	14.7%	14.1%	51.4%	18.5%	1.3%	9254
Bucaramanga	13.9%	11.2%	57.7%	15.1%	2.2%	5292
Buenaventura	17.0%	15.6%	45.7%	18.4%	3.3%	4160

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Buga	16.2%	10.4%	55.8%	16.1%	1.5%	1232
Caldas	15.4%	13.2%	51.0%	19.1%	1.4%	5744
Cali	13.8%	12.2%	56.7%	15.3%	2.0%	19610
Caquetá	17.0%	16.2%	45.5%	19.5%	1.8%	3244
Cartagena	16.2%	14.3%	50.0%	16.7%	2.8%	11445
Cartago	15.4%	12.7%	53.2%	16.9%	1.9%	1275
Casanare	15.5%	15.8%	49.5%	16.9%	2.2%	3063
Cauca	15.3%	13.7%	49.2%	19.0%	2.8%	12552
Cesar	15.5%	16.4%	46.1%	20.6%	1.4%	8453
Chocó	15.7%	17.3%	41.5%	22.4%	3.1%	3820
Chía	11.4%	11.9%	62.6%	12.6%	1.5%	1455
Ciénaga	15.8%	14.9%	45.9%	20.3%	3.1%	1510
Cundinamarca	13.1%	12.4%	55.7%	17.4%	1.4%	16383
Córdoba	17.0%	17.5%	42.0%	21.2%	2.3%	13345
Cúcuta	16.2%	15.1%	50.6%	16.8%	1.4%	7402
Dosquebradas	14.6%	11.9%	54.2%	17.4%	1.9%	1853
Duitama	12.7%	11.5%	61.0%	14.0%	0.8%	1405
Envigado	11.6%	12.3%	61.4%	13.7%	1.1%	1411
Facatativá	13.6%	12.7%	57.2%	16.1%	0.4%	1404
Florencia	15.2%	16.1%	48.8%	18.1%	1.9%	2079
Floridablanca	13.7%	11.4%	57.9%	15.4%	1.6%	2598
Fusagasugá	14.4%	10.1%	58.6%	14.5%	2.4%	1236
Girardot	17.5%	13.4%	49.2%	15.9%	4.0%	901
Girón	13.3%	14.7%	54.4%	16.2%	1.3%	1515
Guainía	14.6%	13.7%	45.5%	22.9%	3.3%	512
Guaviare	13.5%	16.5%	47.6%	19.9%	2.5%	920
Huila	14.8%	13.8%	52.3%	18.1%	1.1%	8188
Ibagué	13.5%	11.8%	58.0%	15.5%	1.2%	5529
Ipiales	15.0%	12.9%	55.3%	15.7%	1.1%	1480
Itagüí	14.7%	15.7%	50.5%	17.6%	1.4%	2031
Jamundí	16.8%	15.9%	46.5%	18.8%	2.0%	1116
La Guajira	16.0%	16.8%	45.5%	19.4%	2.4%	3927
Lorica	17.4%	18.0%	43.0%	19.9%	1.8%	1541
Magangué	16.1%	18.7%	41.4%	21.6%	2.2%	1660
Magdalena	17.3%	16.3%	42.1%	21.4%	2.9%	9135
Maicao	18.1%	16.0%	43.0%	19.7%	3.2%	2161
Malambo	16.9%	13.3%	50.6%	16.7%	2.6%	1287
Manizales	13.9%	10.9%	57.6%	16.5%	1.1%	3133
Medellín	16.1%	15.5%	48.9%	17.4%	2.1%	20627
Meta	16.4%	16.0%	47.2%	18.2%	2.2%	6020
Montería	17.0%	17.1%	45.2%	18.5%	2.1%	5511

Continúa en la siguiente página

GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Mosquera	13.1%	12.1%	57.9%	14.9%	2.0%	1281
Nariño	13.8%	12.1%	54.2%	17.8%	2.0%	9241
Neiva	16.1%	14.6%	50.7%	16.4%	2.2%	3674
Norte de Santander	15.2%	12.3%	53.8%	17.3%	1.4%	8007
Palmira	13.5%	12.9%	57.3%	15.2%	1.1%	2771
Pasto	14.6%	11.6%	57.9%	14.6%	1.3%	4040
Pereira	15.3%	13.5%	53.0%	16.5%	1.7%	4350
Piedecuesta	13.0%	13.4%	57.7%	14.6%	1.4%	1488
Pitalito	14.8%	14.9%	50.4%	18.7%	1.2%	1585
Popayán	12.6%	12.1%	58.9%	15.2%	1.3%	3099
Putumayo	15.2%	14.6%	48.2%	19.4%	2.7%	4157
Quibdó	16.5%	17.9%	44.3%	18.2%	3.1%	1327
Quindío	15.9%	15.9%	49.1%	17.5%	1.5%	2454
Riohacha	17.6%	16.8%	43.7%	19.6%	2.4%	2581
Rionegro	13.4%	12.1%	56.5%	16.4%	1.6%	1193
Risaralda	14.9%	12.8%	51.1%	19.2%	2.0%	2799
Sabaneta	12.0%	11.0%	58.7%	16.7%	1.6%	516
Sahagún	15.6%	18.0%	43.6%	20.4%	2.4%	1215
San Andrés	18.4%	20.1%	44.3%	16.2%	0.9%	548
Santa Marta	16.3%	14.2%	49.8%	17.5%	2.3%	5836
Santander	14.3%	13.1%	53.5%	18.0%	1.2%	8649
Sincelejo	17.8%	15.4%	49.5%	15.7%	1.6%	3222
Soacha	14.7%	13.4%	55.8%	14.8%	1.4%	5626
Sogamoso	11.8%	12.2%	61.5%	13.4%	1.0%	1511
Soledad	18.1%	13.1%	50.1%	16.5%	2.3%	5489
Sucre	17.8%	16.9%	42.2%	21.3%	1.8%	7745
Tolima	14.8%	14.3%	50.9%	18.1%	2.0%	9697
Tuluá	14.5%	12.4%	55.7%	15.8%	1.6%	2140
Tumaco	19.1%	18.1%	38.7%	20.4%	3.7%	2367
Tunja	13.2%	11.8%	58.3%	15.5%	1.2%	1869
Turbo	17.8%	18.3%	39.0%	21.6%	3.3%	2128
Uribia	18.7%	17.5%	37.8%	22.6%	3.5%	1099
Valle del Cauca	14.6%	13.1%	53.0%	17.8%	1.5%	8455
Valledupar	15.2%	13.7%	51.5%	17.9%	1.6%	5282
Vichada	18.7%	14.7%	41.6%	21.9%	3.1%	771
Villavicencio	14.9%	13.3%	53.7%	16.0%	2.1%	5771
Yopal	15.6%	14.2%	52.4%	15.7%	2.1%	1996
Yumbo	16.8%	12.4%	52.1%	17.1%	1.6%	1256
Zipaquirá	13.2%	11.3%	59.4%	14.7%	1.3%	1282
Colombia	15.1%	14.0%	51.4%	17.5%	2.0%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• Pregunta 21.

La siguiente tabla muestra riesgos y beneficios de consumir algunos alimentos.

Alimentos	Beneficios para la salud	Riesgos para la salud
Harinas y dulces	Contienen una alta cantidad de energía.	Caries y sobrepeso
Grasas	Ayudan a absorber algunas vitaminas.	Enfermedades del corazón
Sal	Ayuda a equilibrar líquidos en el cuerpo y a prevenir la deshidratación.	Enfermedades del riñón y de los huesos

¿Cuál es la estrategia más adecuada para evitar problemas de salud en el futuro?

- Comer grasas durante un tiempo, durante otro tiempo harinas y dulces, y luego alimentos salados.
- Comer muchos alimentos que contengan harinas, grasas, dulce y sal.
- Combinar cada día pequeñas porciones de cada uno de estos alimentos.
- Utilizar medicamentos para tratar las enfermedades que produce el consumo de estos alimentos.

• Estructura

Competencia	Uso comprensivo del conocimiento científico
Componente	Cts
Afirmación	Valorar y comprender la necesidad de seguir hábitos para mantener la salud y el entorno.
Nivel de desempeño	Avanzado
Respuesta Correcta	C



GRADO 5° - CIENCIAS NATURALES

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	13.7%	21.7%	35.8%	25.1%	3.8%	974
Antioquia	13.9%	16.2%	40.6%	27.2%	2.1%	29320
Apartadó	15.2%	18.3%	33.7%	30.2%	2.7%	1767
Arauca	15.1%	17.0%	40.1%	26.6%	1.3%	2669
Armenia	15.9%	17.5%	41.5%	23.2%	1.9%	2579
Atlántico	15.0%	18.0%	35.0%	28.1%	4.0%	5983
Barrancabermeja	15.0%	15.8%	41.0%	26.0%	2.2%	2505
Barranquilla	15.2%	16.5%	38.2%	28.0%	2.1%	12394
Bello	15.9%	15.1%	41.6%	25.7%	1.7%	3830
Bogotá, D.C.	13.5%	14.1%	49.2%	21.3%	1.9%	66797
Bolívar	16.3%	20.0%	32.1%	28.6%	3.1%	11151
Boyacá	12.6%	16.5%	45.8%	23.9%	1.2%	9254
Bucaramanga	13.8%	13.5%	47.0%	23.9%	1.8%	5292
Buenaventura	15.3%	17.7%	34.5%	29.4%	3.0%	4160
Buga	14.3%	14.9%	42.2%	26.4%	2.3%	1232
Caldas	12.7%	16.0%	43.3%	26.9%	1.1%	5744
Cali	14.7%	14.5%	43.2%	25.7%	2.0%	19610
Caquetá	13.8%	18.7%	38.9%	26.8%	1.8%	3244
Cartagena	16.0%	16.9%	37.8%	26.5%	2.8%	11445
Cartago	15.4%	15.8%	38.2%	29.3%	1.3%	1275
Casanare	13.2%	18.0%	40.3%	26.8%	1.8%	3063
Cauca	12.3%	15.5%	42.8%	26.7%	2.7%	12552
Cesar	13.8%	16.8%	39.7%	28.3%	1.3%	8453
Chocó	14.7%	19.6%	34.8%	27.8%	3.1%	3820
Chía	12.9%	14.1%	51.9%	20.0%	1.2%	1455
Ciénaga	13.9%	17.7%	38.4%	27.0%	3.0%	1510
Cundinamarca	12.5%	14.9%	48.4%	22.9%	1.3%	16383
Córdoba	15.0%	19.2%	34.6%	29.0%	2.2%	13345
Cúcuta	15.6%	16.4%	38.8%	27.8%	1.4%	7402
Dosquebradas	14.2%	14.8%	41.4%	27.8%	1.7%	1853
Duitama	11.2%	12.7%	53.3%	22.1%	0.8%	1405
Envigado	13.4%	10.8%	56.7%	17.9%	1.1%	1411
Facatativá	13.4%	14.0%	50.0%	22.1%	0.6%	1404
Florencia	15.2%	18.9%	37.4%	26.9%	1.6%	2079
Floridablanca	14.0%	14.7%	47.5%	22.4%	1.4%	2598
Fusagasugá	12.3%	15.7%	45.8%	24.0%	2.2%	1236
Girardot	15.2%	16.9%	42.6%	21.3%	4.0%	901

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	13.9%	18.2%	41.6%	25.4%	1.0%	1515
Guainía	12.7%	19.3%	37.3%	27.0%	3.7%	512
Guaviare	13.2%	20.8%	32.9%	31.3%	1.8%	920
Huila	12.6%	16.8%	42.8%	26.8%	1.0%	8188
Ibagué	14.0%	16.1%	44.9%	23.8%	1.2%	5529
Ipiales	12.8%	15.1%	45.0%	25.5%	1.6%	1480
Itagüí	16.0%	18.0%	42.0%	22.3%	1.7%	2031
Jamundí	14.2%	17.1%	40.3%	26.0%	2.4%	1116
La Guajira	14.3%	18.0%	38.0%	27.0%	2.6%	3927
Lorica	13.8%	18.2%	38.2%	28.2%	1.6%	1541
Magangué	17.2%	19.1%	31.9%	29.5%	2.3%	1660
Magdalena	14.7%	18.1%	36.6%	27.8%	2.8%	9135
Maicao	16.8%	19.5%	35.1%	26.1%	2.5%	2161
Malambo	14.0%	17.9%	39.3%	26.3%	2.4%	1287
Manizales	12.7%	14.3%	44.7%	27.4%	0.9%	3133
Medellín	16.1%	17.1%	41.9%	23.1%	1.9%	20627
Meta	14.4%	18.1%	38.9%	26.7%	2.0%	6020
Montería	15.9%	18.3%	35.5%	28.6%	1.8%	5511
Mosquera	12.4%	12.8%	50.7%	22.2%	1.8%	1281
Nariño	10.9%	13.4%	46.3%	27.2%	2.2%	9241
Neiva	15.2%	16.2%	41.1%	25.4%	2.1%	3674
Norte de Santander	12.5%	15.7%	44.7%	25.8%	1.3%	8007
Palmira	16.2%	14.0%	42.7%	25.9%	1.3%	2771
Pasto	13.6%	13.3%	45.9%	25.9%	1.3%	4040
Pereira	13.6%	14.0%	43.8%	26.8%	1.9%	4350
Piedecuesta	13.8%	15.5%	45.7%	23.9%	1.2%	1488
Pitalito	13.6%	17.1%	40.4%	28.1%	0.9%	1585
Popayán	11.9%	13.9%	44.7%	28.0%	1.6%	3099
Putumayo	13.1%	17.1%	38.8%	28.3%	2.7%	4157
Quibdó	16.7%	17.8%	34.9%	27.5%	3.1%	1327
Quindío	15.2%	17.0%	39.6%	26.5%	1.8%	2454
Riohacha	15.7%	19.4%	35.5%	27.0%	2.5%	2581
Rionegro	14.4%	13.7%	45.8%	24.3%	1.8%	1193
Risaralda	11.8%	15.7%	42.3%	27.9%	2.3%	2799
Sabaneta	12.0%	14.0%	50.6%	22.1%	1.4%	516
Sahagún	13.8%	16.9%	36.0%	31.2%	2.1%	1215
San Andrés	18.1%	19.9%	34.1%	26.5%	1.5%	548
Santa Marta	15.6%	16.6%	38.3%	27.3%	2.2%	5836
Santander	11.3%	14.9%	48.5%	24.1%	1.1%	8649
Sincelejo	15.6%	17.8%	36.5%	28.7%	1.4%	3222

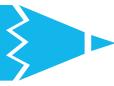
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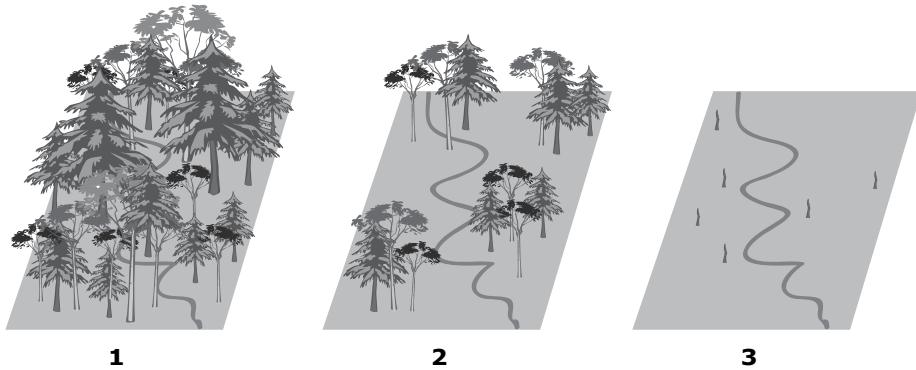
ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	14.6%	15.6%	43.3%	25.2%	1.3%	5626
Sogamoso	14.0%	16.6%	46.2%	22.7%	0.5%	1511
Soledad	14.9%	15.8%	41.0%	26.0%	2.3%	5489
Sucre	15.6%	19.6%	33.9%	29.0%	1.8%	7745
Tolima	13.0%	17.6%	41.6%	25.9%	1.8%	9697
Tuluá	16.1%	15.1%	41.8%	25.3%	1.6%	2140
Tumaco	15.0%	21.0%	32.1%	28.4%	3.5%	2367
Tunja	12.9%	16.3%	49.4%	20.1%	1.3%	1869
Turbo	16.1%	21.1%	30.3%	29.5%	3.1%	2128
Uribia	16.9%	24.9%	29.3%	25.3%	3.5%	1099
Valle del Cauca	13.9%	16.0%	40.8%	27.8%	1.5%	8455
Valledupar	14.7%	14.7%	40.3%	28.8%	1.6%	5282
Vichada	13.0%	22.3%	35.4%	25.9%	3.4%	771
Villavicencio	16.3%	15.8%	42.8%	22.9%	2.2%	5771
Yopal	13.8%	15.6%	42.6%	26.0%	2.0%	1996
Yumbo	17.6%	15.6%	40.4%	25.0%	1.4%	1256
Zipaquirá	13.2%	14.7%	49.0%	21.9%	1.2%	1282
Colombia	14.2%	16.2%	42.1%	25.6%	2.0%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• **Pregunta 22.**

El siguiente dibujo presenta un ecosistema de bosque en tres etapas diferentes.



De acuerdo con lo anterior, ¿qué actividad humana afectó al ecosistema?

- A. La tala de árboles.
- B. La agricultura.
- C. Las inundaciones.
- D. El uso de fertilizantes.

• **Estructura**

Competencia	Explicación de fenómenos
Componente	Cts
Afirmación	Comprender la importancia del desarrollo humano y su efecto sobre el entorno.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	A



GRADO 5° - CIENCIAS NATURALES

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	44.1%	20.3%	14.2%	17.7%	3.7%	974
Antioquia	55.3%	13.1%	13.1%	16.6%	1.9%	29320
Apartadó	47.2%	13.8%	15.9%	20.6%	2.5%	1767
Arauca	60.8%	12.7%	12.1%	13.1%	1.3%	2669
Armenia	61.5%	11.6%	11.1%	14.2%	1.6%	2579
Atlántico	46.8%	15.3%	17.3%	17.2%	3.4%	5983
Barrancabermeja	56.8%	12.6%	11.7%	17.0%	1.8%	2505
Barranquilla	55.9%	12.9%	14.2%	15.2%	1.8%	12394
Bello	61.3%	10.6%	11.6%	15.0%	1.5%	3830
Bogotá, D.C.	66.8%	9.8%	9.4%	12.3%	1.8%	66797
Bolívar	41.6%	18.4%	18.3%	19.2%	2.6%	11151
Boyacá	66.0%	10.8%	9.4%	12.7%	1.2%	9254
Bucaramanga	69.1%	9.2%	8.8%	11.4%	1.5%	5292
Buenaventura	45.1%	15.6%	18.3%	18.1%	2.9%	4160
Buga	64.8%	11.4%	9.5%	12.9%	1.4%	1232
Caldas	61.6%	11.8%	11.2%	14.4%	1.1%	5744
Cali	61.9%	10.6%	11.5%	14.2%	1.7%	19610
Caquetá	55.5%	15.0%	12.9%	15.4%	1.1%	3244
Cartagena	53.8%	13.1%	14.1%	16.6%	2.5%	11445
Cartago	63.1%	10.3%	10.3%	15.1%	1.3%	1275
Casanare	61.6%	12.9%	11.1%	12.5%	1.9%	3063
Cauca	56.6%	14.8%	11.0%	15.1%	2.5%	12552
Cesar	52.2%	15.8%	13.3%	17.8%	0.9%	8453
Chocó	43.5%	17.5%	19.9%	16.4%	2.7%	3820
Chía	76.6%	6.5%	7.2%	8.7%	1.0%	1455
Ciénaga	44.8%	15.5%	18.0%	18.6%	3.1%	1510
Cundinamarca	68.0%	9.8%	9.0%	12.0%	1.2%	16383
Córdoba	46.3%	17.7%	15.7%	18.5%	1.7%	13345
Cúcuta	61.2%	12.0%	11.7%	13.8%	1.3%	7402
Dosquebradas	63.7%	11.4%	10.1%	13.1%	1.8%	1853
Duitama	75.8%	8.0%	6.0%	9.5%	0.6%	1405
Envigado	73.4%	7.6%	7.6%	10.3%	1.1%	1411
Facatativá	70.4%	8.8%	8.2%	12.2%	0.5%	1404
Florencia	59.9%	12.5%	13.8%	12.3%	1.6%	2079
Floridablanca	70.8%	8.4%	8.4%	11.0%	1.4%	2598
Fusagasugá	64.4%	10.0%	11.4%	12.4%	1.9%	1236
Girardot	54.9%	15.1%	11.7%	14.4%	3.9%	901

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	64.8%	11.0%	9.8%	13.3%	1.1%	1515
Guainía	53.5%	16.0%	16.2%	11.5%	2.7%	512
Guaviare	59.2%	12.9%	13.3%	12.8%	1.7%	920
Huila	65.4%	10.6%	9.6%	13.4%	1.0%	8188
Ibagué	66.9%	10.7%	9.3%	12.3%	0.8%	5529
Ipiales	68.0%	10.6%	8.6%	11.4%	1.4%	1480
Itagüí	61.6%	11.3%	10.9%	14.6%	1.7%	2031
Jamundí	58.9%	12.5%	11.1%	15.9%	1.7%	1116
La Guajira	49.9%	16.3%	15.2%	16.6%	2.1%	3927
Lorica	51.2%	15.3%	15.1%	17.4%	1.0%	1541
Magangué	41.8%	18.4%	17.7%	20.2%	1.9%	1660
Magdalena	44.4%	17.3%	17.9%	17.9%	2.5%	9135
Maicao	47.0%	18.0%	15.0%	18.1%	1.9%	2161
Malambo	49.8%	14.3%	17.9%	16.2%	1.9%	1287
Manizales	67.2%	8.8%	9.3%	13.8%	0.9%	3133
Medellín	56.8%	12.2%	13.2%	16.1%	1.7%	20627
Meta	57.2%	14.6%	11.8%	14.8%	1.7%	6020
Montería	51.0%	15.1%	14.4%	17.9%	1.6%	5511
Mosquera	72.5%	7.3%	6.5%	12.0%	1.6%	1281
Nariño	63.9%	11.9%	10.5%	11.7%	1.9%	9241
Neiva	61.4%	11.9%	10.3%	14.8%	1.6%	3674
Norte de Santander	65.1%	11.0%	9.9%	12.7%	1.2%	8007
Palmira	65.9%	9.1%	10.9%	13.2%	1.0%	2771
Pasto	70.8%	9.7%	7.9%	10.5%	1.1%	4040
Pereira	62.0%	11.7%	10.9%	13.8%	1.7%	4350
Piedecuesta	69.4%	9.3%	8.5%	11.4%	1.4%	1488
Pitalito	62.8%	13.2%	9.5%	13.9%	0.4%	1585
Popayán	68.2%	9.8%	9.1%	11.8%	1.2%	3099
Putumayo	57.4%	13.3%	12.9%	14.2%	2.2%	4157
Quibdó	44.7%	16.2%	17.3%	19.0%	2.9%	1327
Quindío	59.4%	12.3%	10.7%	16.1%	1.5%	2454
Riohacha	49.8%	16.9%	14.3%	16.8%	2.2%	2581
Rionegro	68.7%	9.5%	8.9%	11.5%	1.4%	1193
Risaralda	59.5%	12.3%	10.3%	16.1%	1.7%	2799
Sabaneta	69.6%	9.9%	9.9%	9.3%	1.4%	516
Sahagún	53.1%	14.1%	14.2%	16.9%	1.7%	1215
San Andrés	55.5%	14.6%	13.0%	15.5%	1.5%	548
Santa Marta	56.8%	12.4%	13.0%	15.6%	2.1%	5836
Santander	68.2%	10.4%	9.3%	11.1%	1.1%	8649
Sincelejo	57.5%	13.3%	11.5%	16.5%	1.2%	3222

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

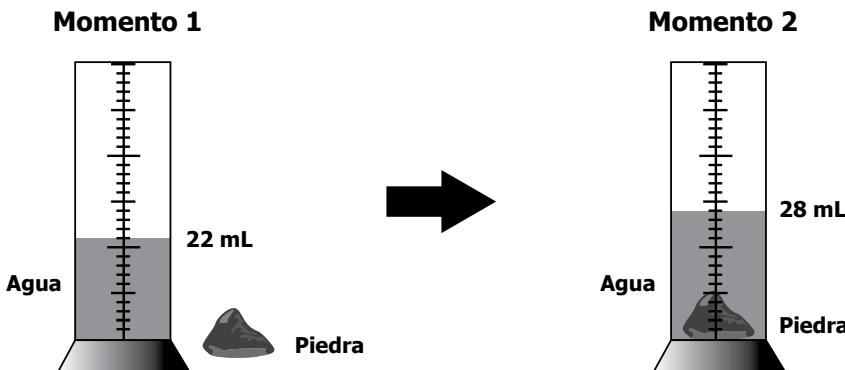
ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	62.5%	10.9%	10.8%	14.4%	1.3%	5626
Sogamoso	74.4%	7.3%	6.1%	11.6%	0.6%	1511
Soledad	53.9%	13.0%	15.4%	15.6%	2.1%	5489
Sucre	46.6%	17.0%	16.3%	18.7%	1.5%	7745
Tolima	58.8%	13.2%	11.6%	14.8%	1.5%	9697
Tuluá	63.0%	10.2%	10.2%	15.2%	1.4%	2140
Tumaco	37.5%	19.8%	18.3%	21.3%	3.2%	2367
Tunja	71.7%	8.3%	8.7%	10.4%	0.9%	1869
Turbo	38.6%	17.9%	20.9%	20.1%	2.6%	2128
Uribia	40.3%	24.8%	13.1%	18.5%	3.3%	1099
Valle del Cauca	60.2%	11.2%	11.4%	15.7%	1.4%	8455
Valledupar	58.5%	13.2%	11.4%	15.6%	1.3%	5282
Vichada	47.0%	21.5%	13.0%	15.4%	3.1%	771
Villavicencio	60.9%	11.7%	11.3%	14.3%	1.7%	5771
Yopal	65.5%	10.8%	9.3%	12.8%	1.5%	1996
Yumbo	60.9%	11.3%	14.0%	12.7%	1.0%	1256
Zipaquirá	70.3%	9.6%	8.4%	10.7%	1.0%	1282
Colombia	59.1%	12.5%	12.0%	14.7%	1.7%	496905

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• **Pregunta 23.**

María realizó el siguiente experimento.



Con este experimento, María puede comprobar la siguiente hipótesis: Si coloca la piedra en el recipiente con agua,

- A. la piedra cambiará sus propiedades físicas.
- B. la piedra aumentará su tamaño.
- C. el agua cambiará sus propiedades físicas.
- D. aumentará el volumen dentro del recipiente.

• **Estructura**

Competencia	Indagar
Componente	Entorno físico
Afirmación	Comprender que a partir de la investigación científica se construyen explicaciones sobre el mundo natural.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	D



GRADO 5° - CIENCIAS NATURALES

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	13.6%	16.7%	13.9%	53.8%	2.1%	974
Antioquia	10.7%	12.6%	11.7%	63.8%	1.1%	29322
Apartadó	11.9%	15.6%	12.3%	58.8%	1.4%	1767
Arauca	10.2%	13.2%	13.1%	62.5%	1.1%	2669
Armenia	10.0%	12.8%	9.8%	66.7%	0.6%	2580
Atlántico	12.7%	18.3%	11.8%	55.6%	1.6%	5983
Barrancabermeja	11.0%	14.9%	13.1%	60.4%	0.6%	2505
Barranquilla	10.3%	15.9%	11.7%	61.5%	0.6%	12395
Bello	9.5%	11.2%	11.7%	67.0%	0.6%	3831
Bogotá, D.C.	6.9%	10.7%	12.5%	69.3%	0.5%	66800
Bolívar	16.0%	18.8%	12.9%	50.6%	1.7%	11151
Boyacá	7.4%	9.9%	10.1%	72.1%	0.5%	9253
Bucaramanga	6.7%	11.4%	12.1%	69.3%	0.5%	5292
Buenaventura	13.1%	19.2%	11.4%	54.7%	1.6%	4157
Buga	8.0%	9.8%	10.5%	71.3%	0.4%	1232
Caldas	9.3%	11.9%	10.9%	67.5%	0.5%	5745
Cali	8.5%	12.8%	11.2%	66.8%	0.6%	19608
Caquetá	11.3%	12.9%	13.1%	62.0%	0.7%	3243
Cartagena	12.6%	16.2%	12.7%	57.3%	1.1%	11444
Cartago	9.4%	11.5%	10.4%	68.3%	0.5%	1275
Casanare	8.6%	11.5%	11.6%	67.5%	0.8%	3063
Cauca	9.7%	14.2%	12.5%	62.1%	1.4%	12549
Cesar	11.4%	15.3%	12.0%	60.6%	0.6%	8455
Chocó	14.1%	17.9%	12.1%	53.9%	2.1%	3818
Chía	7.1%	8.9%	12.5%	71.0%	0.5%	1455
Ciénaga	14.3%	18.7%	13.2%	52.7%	1.0%	1510
Cundinamarca	6.6%	9.6%	11.2%	72.2%	0.5%	16385
Córdoba	14.2%	16.5%	12.6%	55.6%	1.2%	13345
Cúcuta	8.7%	14.3%	11.3%	65.1%	0.6%	7402
Dosquebradas	7.3%	11.3%	11.6%	69.2%	0.5%	1853
Duitama	5.0%	7.6%	10.2%	77.1%	0.1%	1405
Envigado	8.5%	8.9%	13.3%	69.2%	0.1%	1411
Facatativá	6.9%	8.2%	12.3%	72.1%	0.5%	1406
Florencia	8.7%	12.9%	11.6%	66.2%	0.6%	2079
Floridablanca	7.3%	11.5%	11.2%	69.7%	0.3%	2598
Fusagasugá	4.9%	10.7%	7.9%	75.9%	0.6%	1235
Girardot	11.0%	13.0%	12.2%	62.4%	1.4%	901

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	9.4%	14.2%	11.8%	64.4%	0.3%	1515
Guainía	10.4%	14.6%	12.5%	60.5%	2.0%	512
Guaviare	10.8%	14.8%	11.3%	62.7%	0.4%	920
Huila	7.0%	10.6%	11.3%	70.7%	0.4%	8186
Ibagué	7.0%	10.1%	10.5%	72.0%	0.4%	5529
Ipiales	7.6%	9.6%	11.9%	70.7%	0.2%	1480
Itagüí	11.4%	10.3%	12.5%	65.1%	0.7%	2031
Jamundí	12.3%	12.0%	10.5%	64.3%	0.9%	1116
La Guajira	13.6%	17.2%	13.4%	54.4%	1.4%	3926
Lorica	13.3%	15.8%	11.7%	57.5%	1.7%	1541
Magangué	15.6%	20.2%	13.6%	49.5%	1.1%	1660
Magdalena	14.1%	18.2%	12.2%	53.9%	1.5%	9131
Maicao	15.1%	19.5%	13.6%	50.7%	1.2%	2161
Malambo	10.7%	18.4%	11.7%	58.4%	0.7%	1286
Manizales	6.3%	8.6%	11.6%	73.1%	0.4%	3134
Medellín	13.0%	12.6%	12.1%	61.4%	0.9%	20626
Meta	10.1%	11.9%	11.3%	65.8%	0.9%	6019
Montería	13.1%	14.3%	12.8%	59.1%	0.7%	5509
Mosquera	5.6%	9.8%	10.9%	73.2%	0.5%	1281
Nariño	7.4%	10.2%	11.1%	70.0%	1.3%	9244
Neiva	9.4%	10.6%	11.5%	68.2%	0.4%	3674
Norte de Santander	8.5%	12.8%	11.3%	66.7%	0.7%	8006
Palmira	7.6%	10.5%	10.3%	71.4%	0.2%	2770
Pasto	5.7%	9.0%	10.8%	74.0%	0.4%	4040
Pereira	7.9%	13.2%	11.9%	66.7%	0.3%	4349
Piedecuesta	7.9%	11.8%	13.3%	66.2%	0.8%	1487
Pitalito	8.8%	12.2%	11.4%	67.2%	0.4%	1588
Popayán	7.1%	9.8%	10.7%	72.0%	0.4%	3099
Putumayo	9.5%	10.7%	10.8%	67.7%	1.3%	4157
Quibdó	11.7%	20.1%	12.3%	54.4%	1.5%	1328
Quindío	9.8%	12.4%	10.9%	65.9%	0.9%	2454
Riohacha	14.4%	19.3%	12.6%	52.2%	1.6%	2580
Rionegro	7.0%	10.9%	10.3%	71.1%	0.7%	1193
Risaralda	8.3%	10.3%	11.5%	68.8%	1.1%	2797
Sabaneta	7.4%	11.4%	14.7%	66.5%	0.0%	516
Sahagún	10.6%	11.4%	14.4%	62.0%	1.6%	1215
San Andrés	13.9%	15.5%	11.5%	58.6%	0.5%	548
Santa Marta	11.4%	16.0%	12.1%	59.7%	0.8%	5835
Santander	7.2%	10.3%	11.4%	70.6%	0.4%	8650
Sincelejo	11.7%	13.6%	11.1%	62.8%	0.8%	3223

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	9.2%	12.7%	13.2%	64.4%	0.5%	5626
Sogamoso	6.3%	7.7%	12.2%	73.6%	0.1%	1510
Soledad	10.5%	15.3%	11.9%	61.6%	0.7%	5490
Sucre	13.4%	16.0%	13.0%	56.7%	0.9%	7745
Tolima	9.7%	12.9%	10.5%	65.9%	0.9%	9703
Tuluá	8.2%	11.3%	10.8%	69.3%	0.4%	2140
Tumaco	17.2%	21.3%	14.5%	44.1%	2.8%	2367
Tunja	5.5%	7.2%	11.8%	75.3%	0.3%	1869
Turbo	17.5%	20.2%	13.3%	47.5%	1.6%	2128
Uribia	17.7%	20.3%	19.5%	40.0%	2.5%	1099
Valle del Cauca	8.9%	12.1%	10.2%	68.4%	0.5%	8458
Valledupar	9.5%	15.3%	11.0%	63.6%	0.5%	5280
Vichada	12.8%	15.2%	14.4%	55.1%	2.5%	771
Villavicencio	8.2%	11.9%	11.5%	67.7%	0.7%	5771
Yopal	8.7%	12.9%	9.7%	68.2%	0.5%	1996
Yumbo	7.5%	13.5%	11.0%	67.7%	0.4%	1256
Zipaquirá	6.5%	9.4%	13.3%	70.3%	0.6%	1282
Colombia	9.8%	13.0%	11.9%	64.5%	0.8%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



- **Pregunta 24.**

Un estudiante presentó en clase la siguiente cartelera:

Objetivo: Averiguar si los objetos de color oscuro se calientan más que los de color claro.

Experimento: Tocar dos objetos del mismo material, uno claro y uno oscuro, cuando se colocan al Sol al mismo tiempo, y determinar si alguno está más caliente que el otro.

Conclusión: Los insectos buscan los colores claros.

La profesora le dijo al estudiante que no estaba bien la cartelera. ¿Qué problema presenta esta cartelera?

- A. La conclusión no tiene relación con el experimento.
- B. El experimento escogido no es adecuado para cumplir con el objetivo.
- C. Una investigación no debe tener objetivos.
- D. El objetivo está mal planteado, pues el Sol no es una fuente de calor.

- **Estructura**

Competencia	Indagar
Componente	Entorno físico
Afirmación	Elaborar y proponer explicaciones para algunos fenómenos de la naturaleza basadas en conocimiento científicos y de la evidencia de su propia investigación y de la de otros.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	A



GRADO 5° - CIENCIAS NATURALES

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	34.8%	26.2%	21.3%	15.4%	2.4%	974
Antioquia	50.4%	22.3%	14.7%	11.3%	1.3%	29322
Apartadó	45.4%	22.5%	16.5%	14.0%	1.6%	1767
Arauca	47.1%	22.4%	16.3%	12.9%	1.4%	2669
Armenia	57.9%	19.5%	13.4%	8.3%	0.9%	2580
Atlántico	42.6%	22.9%	18.7%	13.7%	2.1%	5983
Barrancabermeja	54.3%	21.8%	12.4%	10.6%	1.0%	2505
Barranquilla	54.1%	20.4%	14.5%	10.2%	0.8%	12395
Bello	63.3%	18.7%	9.9%	7.1%	1.0%	3831
Bogotá, D.C.	65.1%	16.9%	10.0%	7.3%	0.6%	66800
Bolívar	36.6%	24.6%	20.0%	16.7%	2.1%	11151
Boyacá	53.3%	21.9%	14.8%	9.4%	0.6%	9253
Bucaramanga	62.5%	18.5%	11.1%	7.3%	0.6%	5292
Buenaventura	46.4%	22.1%	16.0%	13.9%	1.6%	4157
Buga	57.7%	19.4%	12.9%	9.2%	0.8%	1232
Caldas	52.5%	21.4%	14.5%	10.9%	0.6%	5745
Cali	59.4%	19.7%	11.5%	8.6%	0.8%	19608
Caquetá	40.2%	25.4%	17.4%	15.8%	1.3%	3243
Cartagena	53.2%	20.6%	13.8%	10.9%	1.5%	11444
Cartago	56.9%	20.7%	12.7%	9.3%	0.5%	1275
Casanare	48.7%	23.6%	15.5%	11.5%	0.8%	3063
Cauca	44.3%	21.9%	16.7%	15.4%	1.7%	12549
Cesar	42.4%	24.4%	18.2%	14.1%	1.0%	8455
Chocó	33.3%	25.3%	18.5%	20.5%	2.4%	3818
Chía	69.2%	15.6%	8.7%	6.0%	0.5%	1455
Ciénaga	42.4%	23.7%	18.3%	13.5%	2.1%	1510
Cundinamarca	59.6%	19.1%	12.6%	8.1%	0.6%	16385
Córdoba	37.9%	25.5%	19.4%	15.6%	1.6%	13345
Cúcuta	53.6%	22.0%	13.8%	9.7%	0.9%	7402
Dosquebradas	59.1%	19.6%	12.4%	8.1%	0.7%	1853
Duitama	66.6%	17.0%	9.0%	7.2%	0.2%	1405
Envigado	72.7%	15.4%	6.4%	5.1%	0.4%	1411
Facatativá	63.9%	18.3%	8.7%	8.6%	0.4%	1406
Florencia	47.9%	23.8%	15.2%	12.3%	0.8%	2079
Floridablanca	65.2%	17.0%	10.7%	6.9%	0.2%	2598
Fusagasugá	62.3%	17.8%	10.9%	8.3%	0.6%	1235
Girardot	56.9%	18.8%	12.4%	9.8%	2.1%	901

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	54.7%	22.2%	14.5%	8.3%	0.3%	1515
Guainía	39.3%	23.4%	15.4%	20.1%	1.8%	512
Guaviare	43.4%	22.8%	18.4%	14.6%	0.9%	920
Huila	50.4%	21.3%	16.1%	11.6%	0.6%	8186
Ibagué	60.0%	19.2%	11.7%	8.7%	0.5%	5529
Ipiales	57.8%	20.1%	12.7%	9.3%	0.2%	1480
Itagüí	58.1%	21.1%	11.8%	7.8%	1.1%	2031
Jamundí	49.9%	24.2%	13.4%	11.1%	1.3%	1116
La Guajira	40.4%	23.3%	17.9%	16.8%	1.6%	3926
Lorica	41.6%	21.9%	17.6%	17.0%	1.9%	1541
Magangué	38.8%	24.2%	19.0%	16.7%	1.3%	1660
Magdalena	37.9%	24.4%	18.5%	17.3%	1.9%	9131
Maicao	39.9%	23.0%	19.9%	15.6%	1.5%	2161
Malambo	48.0%	22.4%	15.1%	13.0%	1.6%	1286
Manizales	62.6%	18.4%	11.3%	7.2%	0.5%	3134
Medellín	56.7%	21.2%	12.1%	9.0%	0.9%	20626
Meta	47.2%	23.9%	16.1%	11.7%	1.1%	6019
Montería	46.5%	25.2%	14.8%	12.4%	1.0%	5509
Mosquera	68.8%	15.9%	8.4%	6.4%	0.5%	1281
Nariño	50.6%	21.7%	13.7%	12.4%	1.5%	9244
Neiva	54.6%	22.0%	13.1%	9.9%	0.5%	3674
Norte de Santander	52.0%	21.4%	15.1%	10.8%	0.8%	8006
Palmira	59.9%	20.8%	11.3%	7.6%	0.5%	2770
Pasto	63.2%	18.4%	11.6%	6.3%	0.6%	4040
Pereira	58.1%	20.2%	12.5%	8.9%	0.3%	4349
Piedecuesta	60.1%	19.4%	12.8%	6.9%	0.8%	1487
Pitalito	51.2%	23.2%	14.2%	11.0%	0.4%	1588
Popayán	60.8%	18.9%	11.7%	7.9%	0.7%	3099
Putumayo	46.1%	24.6%	16.4%	11.4%	1.6%	4157
Quibdó	40.7%	23.6%	18.8%	14.7%	2.3%	1328
Quindío	52.1%	22.1%	13.7%	11.2%	0.9%	2454
Riohacha	42.8%	21.2%	17.8%	16.4%	1.9%	2580
Rionegro	61.9%	19.1%	10.8%	7.4%	0.8%	1193
Risaralda	51.4%	21.6%	14.8%	11.1%	1.2%	2797
Sabaneta	69.6%	16.7%	7.9%	5.6%	0.2%	516
Sahagún	42.9%	24.0%	17.5%	14.1%	1.5%	1215
San Andrés	53.1%	25.0%	15.0%	6.8%	0.2%	548
Santa Marta	50.8%	21.7%	15.0%	11.4%	1.1%	5835
Santander	54.3%	20.8%	14.2%	10.1%	0.6%	8650
Sincelejo	49.5%	23.5%	15.8%	10.0%	1.3%	3223

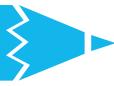
Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	58.9%	20.2%	11.5%	8.8%	0.6%	5626
Sogamoso	66.8%	18.5%	8.9%	5.6%	0.3%	1510
Soledad	52.3%	22.3%	13.2%	11.3%	0.9%	5490
Sucre	38.9%	25.6%	18.0%	16.2%	1.3%	7745
Tolima	47.1%	22.7%	16.5%	12.5%	1.2%	9703
Tuluá	58.9%	18.5%	13.4%	8.6%	0.6%	2140
Tumaco	35.0%	23.7%	18.5%	19.5%	3.3%	2367
Tunja	67.1%	17.6%	9.3%	5.7%	0.4%	1869
Turbo	37.7%	25.2%	20.5%	15.1%	1.5%	2128
Uribia	24.3%	29.6%	20.9%	21.7%	3.5%	1099
Valle del Cauca	53.9%	21.3%	13.8%	10.3%	0.7%	8458
Valledupar	52.2%	20.8%	14.3%	12.0%	0.7%	5280
Vichada	39.0%	25.9%	16.5%	15.4%	3.1%	771
Villavicencio	58.0%	21.3%	11.0%	9.0%	0.7%	5771
Yopal	53.9%	21.8%	13.6%	10.2%	0.5%	1996
Yumbo	57.1%	19.7%	12.8%	9.9%	0.6%	1256
Zipaquirá	65.4%	17.9%	9.4%	6.4%	0.8%	1282
Colombia	53.1%	21.1%	14.0%	10.8%	1.0%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• Pregunta 25.

Al pasar cerca de un radio, dos estudiantes discuten sobre el funcionamiento de este. ¿Cuál de los siguientes diagramas explica la transformación de la energía que se sucede en el radio para que funcione?

- A. Energía química → energía lumínica.
- B. Energía eléctrica → energía calórica.
- C. Energía sonora → energía mecánica.
- D. Energía eléctrica → energía sonora.

• Estructura

Competencia	Explicación de fenómenos
Componente	Entorno físico
Afirmación	Comprender que existen diversas fuentes y formas de energía y que ésta se transforma continuamente.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	D

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	13.9%	25.5%	20.4%	37.8%	2.5%	974
Antioquia	12.5%	23.7%	17.4%	44.9%	1.5%	29322
Apartadó	13.8%	22.6%	17.3%	44.3%	2.1%	1767
Arauca	11.9%	21.3%	18.0%	47.3%	1.5%	2669
Armenia	13.0%	21.5%	15.7%	48.7%	1.0%	2580
Atlántico	14.7%	23.5%	16.4%	42.8%	2.6%	5983
Barrancabermeja	11.4%	18.2%	16.4%	52.7%	1.4%	2505
Baranquilla	12.6%	19.7%	15.8%	50.8%	1.2%	12395
Bello	10.3%	21.0%	17.1%	50.6%	1.0%	3831
Bogotá, D.C.	8.7%	17.4%	14.6%	58.4%	0.8%	66800
Bolívar	16.4%	25.9%	18.7%	36.5%	2.5%	11151
Boyacá	10.2%	22.1%	14.2%	52.6%	0.9%	9253
Bucaramanga	9.3%	16.9%	14.4%	58.7%	0.7%	5292
Buenaventura	13.9%	24.4%	16.3%	43.1%	2.3%	4157
Buga	11.6%	21.3%	16.0%	49.9%	1.1%	1232

Continúa en la siguiente página

GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Caldas	10.9%	22.9%	16.4%	49.0%	0.9%	5745
Cali	10.4%	18.8%	14.8%	54.9%	1.1%	19608
Caquetá	14.4%	23.8%	21.8%	38.9%	1.2%	3243
Cartagena	12.9%	22.0%	15.5%	48.2%	1.5%	11444
Cartago	11.4%	18.4%	16.2%	53.6%	0.5%	1275
Casanare	11.3%	22.8%	18.8%	45.9%	1.2%	3063
Cauca	12.6%	25.2%	17.2%	43.1%	2.0%	12549
Cesar	14.6%	23.9%	16.3%	44.1%	1.1%	8455
Chocó	16.3%	26.7%	19.7%	34.6%	2.7%	3818
Chía	8.0%	16.0%	14.8%	60.5%	0.8%	1455
Ciénaga	17.5%	23.2%	15.6%	41.8%	1.9%	1510
Cundinamarca	8.4%	19.7%	14.1%	57.1%	0.7%	16385
Córdoba	15.9%	25.7%	18.5%	37.8%	2.0%	13345
Cúcuta	12.0%	20.0%	14.7%	52.4%	0.9%	7402
Dosquebradas	11.0%	21.5%	14.9%	51.7%	1.0%	1853
Duitama	7.8%	13.1%	13.7%	65.1%	0.4%	1405
Envigado	6.3%	15.0%	17.6%	60.5%	0.6%	1411
Facatativá	9.5%	16.6%	14.8%	58.5%	0.6%	1406
Florencia	11.4%	24.2%	17.8%	45.2%	1.4%	2079
Floridablanca	8.7%	17.6%	15.8%	57.4%	0.5%	2598
Fusagasugá	7.9%	18.3%	14.7%	58.3%	0.7%	1235
Girardot	12.8%	25.2%	15.3%	43.6%	3.1%	901
Girón	12.0%	22.2%	15.6%	49.4%	0.8%	1515
Guainía	18.2%	28.3%	15.8%	35.4%	2.3%	512
Guaviare	13.8%	25.0%	17.3%	42.5%	1.4%	920
Huila	11.3%	21.3%	16.5%	50.2%	0.8%	8186
Ibagué	9.5%	19.7%	13.4%	56.6%	0.7%	5529
Ipiales	9.0%	19.7%	12.2%	58.7%	0.4%	1480
Itagüí	12.1%	19.5%	17.5%	49.8%	1.1%	2031
Jamundí	14.5%	22.4%	15.6%	46.1%	1.3%	1116
La Guajira	15.3%	23.5%	18.6%	40.7%	1.9%	3926
Lorica	13.9%	26.1%	16.7%	41.1%	2.3%	1541
Magangué	16.4%	27.5%	18.3%	36.4%	1.4%	1660
Magdalena	15.6%	25.1%	17.4%	39.5%	2.4%	9131
Maicao	15.0%	25.7%	18.6%	38.8%	2.0%	2161
Malambo	13.0%	21.4%	15.8%	48.0%	1.9%	1286
Manizales	8.6%	18.3%	15.1%	57.5%	0.6%	3134
Medellín	11.6%	20.5%	18.0%	48.7%	1.3%	20626
Meta	11.9%	22.5%	18.2%	46.3%	1.1%	6019
Montería	13.9%	23.4%	17.6%	43.9%	1.1%	5509
Mosquera	8.4%	18.7%	14.4%	57.8%	0.7%	1281

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Nariño	10.8%	22.1%	14.2%	51.4%	1.6%	9244
Neiva	11.5%	20.8%	15.5%	51.5%	0.7%	3674
Norte de Santander	11.1%	20.9%	15.1%	51.9%	1.1%	8006
Palmira	9.3%	19.6%	14.1%	56.4%	0.6%	2770
Pasto	9.0%	18.1%	12.2%	60.0%	0.7%	4040
Pereira	10.6%	22.3%	15.7%	50.7%	0.7%	4349
Piedecuesta	11.4%	18.0%	16.8%	53.1%	0.7%	1487
Pitalito	10.6%	23.9%	16.4%	48.4%	0.6%	1588
Popayán	9.9%	18.6%	15.1%	55.1%	1.3%	3099
Putumayo	12.2%	24.4%	19.1%	42.8%	1.5%	4157
Quibdó	15.6%	23.0%	17.2%	41.7%	2.4%	1328
Quindío	12.8%	23.6%	17.2%	45.3%	1.2%	2454
Riohacha	14.9%	25.6%	16.6%	41.0%	1.9%	2580
Rionegro	9.5%	16.6%	17.9%	54.9%	1.1%	1193
Risaralda	11.4%	23.8%	14.1%	49.2%	1.6%	2797
Sabaneta	8.9%	18.4%	16.7%	55.6%	0.4%	516
Sahagún	13.5%	22.9%	16.7%	44.9%	2.0%	1215
San Andrés	14.4%	20.4%	17.7%	46.2%	1.3%	548
Santa Marta	12.9%	21.4%	17.2%	47.2%	1.3%	5835
Santander	10.5%	21.1%	13.8%	53.9%	0.7%	8650
Sincelejo	14.6%	21.4%	17.1%	45.5%	1.4%	3223
Soacha	10.0%	20.3%	14.5%	54.5%	0.7%	5626
Sogamoso	8.8%	18.3%	14.6%	57.9%	0.3%	1510
Soledad	12.1%	20.3%	15.2%	51.2%	1.2%	5490
Sucre	15.5%	26.0%	17.4%	39.5%	1.6%	7745
Tolima	12.1%	22.6%	17.0%	46.7%	1.6%	9703
Tuluá	10.5%	20.0%	15.9%	52.6%	1.0%	2140
Tumaco	17.2%	26.5%	18.6%	34.3%	3.4%	2367
Tunja	9.6%	14.2%	14.1%	61.6%	0.5%	1869
Turbo	15.7%	25.8%	19.9%	36.1%	2.4%	2128
Uribia	17.1%	26.0%	23.1%	30.5%	3.3%	1099
Valle del Cauca	11.4%	23.1%	15.1%	49.3%	1.0%	8458
Valledupar	13.2%	21.2%	15.5%	48.9%	1.2%	5280
Vichada	11.8%	24.9%	18.9%	41.1%	3.2%	771
Villavicencio	11.3%	19.4%	14.9%	53.3%	1.1%	5771
Yopal	12.4%	20.1%	16.6%	50.1%	0.8%	1996
Yumbo	11.7%	21.0%	15.5%	50.8%	1.0%	1256
Zipaquirá	7.6%	17.8%	14.5%	59.4%	0.7%	1282
Colombia	11.7%	21.3%	16.1%	49.6%	1.3%	496903

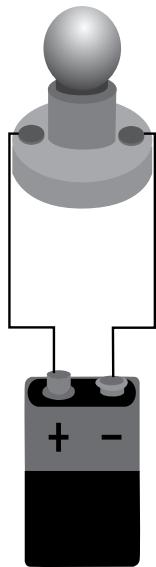
*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



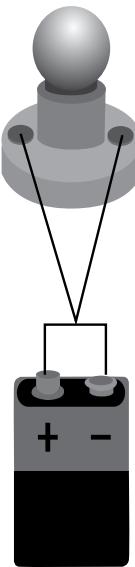
• **Pregunta 26.**

Claudia tiene una pila, cables y un bombillo. ¿Cuál de los siguientes circuitos debería armar Claudia para que el bombillo se encienda?

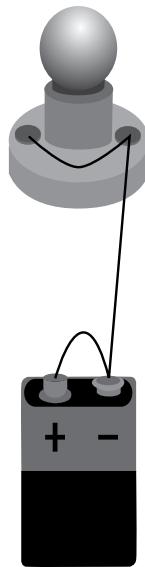
A.



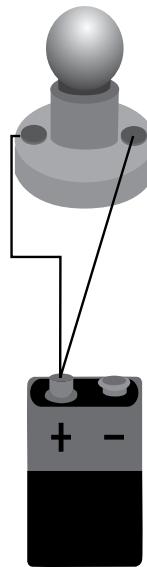
B.



C.



D.



• **Estructura**

Competencia	Uso comprensivo del conocimiento científico
Componente	Entorno físico
Afirmación	Comprender la estructura básica y el funcionamiento de los circuitos eléctricos.
Nivel de desempeño	Mínimo
Respuesta Correcta	A

• **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	54.3%	15.3%	12.0%	15.8%	2.6%	974
Antioquia	64.3%	11.0%	10.5%	12.7%	1.5%	29322
Apartadó	64.1%	11.7%	8.8%	13.4%	2.0%	1767
Arauca	64.3%	11.1%	10.0%	13.3%	1.3%	2669
Armenia	71.3%	8.9%	8.5%	10.3%	1.0%	2580
Atlántico	61.2%	12.5%	9.9%	13.9%	2.4%	5983
Barrancabermeja	75.4%	9.1%	6.9%	7.8%	0.8%	2505
Barranquilla	69.7%	10.4%	7.9%	11.0%	1.0%	12395
Bello	72.9%	9.9%	7.1%	9.4%	0.7%	3831
Bogotá, D.C.	79.2%	8.4%	5.0%	6.6%	0.7%	66800
Bolívar	53.6%	14.0%	14.0%	15.8%	2.6%	11151
Boyacá	71.2%	10.0%	7.3%	10.6%	0.8%	9253
Bucaramanga	79.5%	7.7%	4.7%	7.5%	0.6%	5292
Buenaventura	60.9%	11.7%	10.9%	14.2%	2.4%	4157
Buga	69.1%	13.0%	7.4%	9.5%	1.1%	1232
Caldas	67.1%	10.5%	9.1%	12.4%	0.9%	5745
Cali	74.5%	9.5%	6.0%	9.1%	0.9%	19608
Caquetá	59.6%	13.3%	13.1%	12.9%	1.2%	3243
Cartagena	67.5%	11.1%	8.6%	11.2%	1.6%	11444
Cartago	72.9%	9.1%	7.2%	10.2%	0.6%	1275
Casanare	67.6%	10.5%	9.2%	11.5%	1.2%	3063
Cauca	64.0%	11.3%	11.1%	11.7%	2.0%	12549
Cesar	62.1%	11.7%	11.8%	13.1%	1.3%	8455
Chocó	53.8%	13.3%	15.5%	14.6%	2.7%	3818
Chía	77.6%	9.1%	5.1%	7.4%	0.8%	1455
Ciénaga	63.0%	11.3%	11.1%	12.3%	2.4%	1510
Cundinamarca	76.4%	8.7%	6.1%	8.2%	0.7%	16385
Córdoba	57.0%	13.4%	13.1%	14.4%	2.0%	13345
Cúcuta	72.0%	9.8%	7.1%	10.1%	0.9%	7402
Dosquebradas	72.9%	10.8%	6.3%	9.0%	1.1%	1853
Duitama	80.1%	7.9%	5.3%	6.3%	0.4%	1405
Envigado	75.3%	10.1%	6.3%	7.9%	0.4%	1411
Facatativá	81.5%	7.6%	5.3%	5.3%	0.2%	1406
Florencia	68.2%	10.0%	8.5%	12.3%	1.1%	2079
Floridablanca	78.3%	7.9%	5.9%	7.5%	0.5%	2598
Fusagasugá	77.6%	8.5%	5.6%	7.7%	0.6%	1235
Girardot	68.6%	11.8%	7.7%	9.5%	2.4%	901

Continúa en la siguiente página

GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	74.1%	9.7%	7.0%	8.5%	0.7%	1515
Guainía	65.6%	12.3%	9.6%	10.2%	2.3%	512
Guaviare	64.0%	10.7%	11.0%	12.7%	1.6%	920
Huila	69.9%	9.9%	8.8%	10.5%	0.8%	8186
Ibagué	75.8%	9.2%	5.2%	9.2%	0.6%	5529
Ipiales	76.8%	8.9%	6.3%	7.5%	0.5%	1480
Itagüí	70.5%	10.7%	8.2%	9.4%	1.1%	2031
Jamundí	63.9%	12.3%	9.3%	13.0%	1.5%	1116
La Guajira	59.2%	12.7%	12.7%	13.4%	2.0%	3926
Lorica	58.6%	12.9%	12.3%	14.1%	2.1%	1541
Magangué	58.0%	12.1%	12.7%	15.2%	1.9%	1660
Magdalena	57.1%	13.6%	13.3%	14.0%	2.1%	9131
Maicao	61.2%	13.2%	11.2%	12.5%	1.9%	2161
Malambo	65.7%	10.5%	10.0%	12.4%	1.5%	1286
Manizales	73.8%	9.9%	5.8%	10.0%	0.5%	3134
Medellín	67.6%	11.4%	9.0%	10.8%	1.2%	20626
Meta	67.9%	10.6%	9.0%	11.3%	1.2%	6019
Montería	64.3%	11.9%	10.7%	11.9%	1.1%	5509
Mosquera	80.4%	8.7%	3.7%	6.7%	0.5%	1281
Nariño	68.0%	9.8%	8.9%	11.5%	1.8%	9244
Neiva	72.1%	10.6%	6.4%	10.2%	0.7%	3674
Norte de Santander	67.7%	10.7%	8.1%	12.5%	1.0%	8006
Palmira	76.0%	8.1%	6.0%	9.2%	0.6%	2770
Pasto	79.0%	7.4%	5.1%	7.7%	0.8%	4040
Pereira	73.1%	9.2%	6.4%	10.6%	0.7%	4349
Piedecuesta	74.4%	9.5%	6.1%	9.1%	0.8%	1487
Pitalito	71.3%	10.6%	8.6%	9.0%	0.5%	1588
Popayán	73.9%	10.0%	6.7%	8.6%	0.7%	3099
Putumayo	65.0%	11.1%	10.1%	12.2%	1.5%	4157
Quibdó	57.2%	12.3%	11.2%	17.0%	2.3%	1328
Quindío	70.7%	10.8%	7.8%	9.7%	1.1%	2454
Riohacha	62.4%	11.7%	10.7%	13.3%	2.0%	2580
Rionegro	72.8%	11.1%	6.2%	8.8%	1.1%	1193
Risaralda	68.0%	10.4%	9.2%	10.8%	1.6%	2797
Sabaneta	70.2%	10.9%	8.7%	10.3%	0.0%	516
Sahagún	64.9%	13.4%	9.1%	10.5%	2.1%	1215
San Andrés	70.1%	10.2%	9.3%	9.7%	0.7%	548
Santa Marta	67.2%	11.6%	8.3%	11.6%	1.3%	5835
Santander	70.9%	9.6%	7.6%	11.1%	0.7%	8650
Sincelejo	66.0%	12.0%	9.8%	10.9%	1.3%	3223

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	76.5%	9.2%	6.1%	7.4%	0.7%	5626
Sogamoso	77.9%	9.1%	5.8%	7.1%	0.2%	1510
Soledad	70.5%	10.2%	7.4%	10.6%	1.2%	5490
Sucre	57.9%	13.0%	12.5%	15.1%	1.6%	7745
Tolima	66.7%	10.5%	9.8%	11.5%	1.4%	9703
Tuluá	72.5%	10.0%	6.6%	10.2%	0.7%	2140
Tumaco	52.3%	14.1%	14.6%	15.0%	4.0%	2367
Tunja	82.7%	6.4%	4.4%	6.2%	0.4%	1869
Turbo	54.5%	13.7%	14.6%	15.4%	1.8%	2128
Uribia	53.1%	13.2%	17.1%	13.8%	2.7%	1099
Valle del Cauca	71.1%	9.3%	7.7%	11.1%	0.9%	8458
Valledupar	70.2%	10.3%	7.6%	11.0%	0.9%	5280
Vichada	65.2%	9.3%	11.8%	11.3%	2.3%	771
Villavicencio	74.3%	8.9%	6.9%	9.1%	0.8%	5771
Yopal	72.3%	10.7%	7.6%	8.8%	0.6%	1996
Yumbo	72.8%	10.2%	6.4%	9.8%	0.9%	1256
Zipaquirá	78.7%	8.2%	4.7%	8.0%	0.5%	1282
Colombia	69.3%	10.4%	8.4%	10.6%	1.2%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



GRADO 5° - CIENCIAS NATURALES

• Pregunta 27.

La gravedad es la fuerza con la que cuerpos celestes como la Tierra y la Luna atraen los objetos hacia el suelo. Se sabe que la gravedad en la Tierra es diferente a la de la Luna debido a la diferencia de sus masas. Al dejar caer dos balones idénticos y desde una misma altura, uno en la Tierra y el otro en la Luna, se puede predecir que

- A. caerá más rápido en la Luna porque su gravedad es mayor que la de la Tierra.
- B. caerá más rápido en la Tierra porque su gravedad es mayor que la de la Luna.
- C. caerán con la misma velocidad porque los balones son idénticos y la altura es la misma.
- D. caerá más rápido en la Luna porque su gravedad es menor que la de la Tierra.

• Estructura

Competencia	Indagar
Componente	Entorno físico
Afirmación	Elaborar y proponer explicaciones para algunos fenómenos de la naturaleza basadas en conocimiento científicos y de la evidencia de su propia investigación y de la de otros.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	B

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	12.1%	36.9%	30.4%	17.9%	2.8%	974
Antioquia	13.4%	44.5%	27.1%	13.5%	1.5%	29322
Apartadó	14.9%	41.0%	27.0%	14.8%	2.2%	1767
Arauca	12.5%	46.8%	26.0%	13.5%	1.3%	2669
Armenia	12.9%	49.6%	23.9%	12.7%	0.9%	2580
Atlántico	14.4%	40.2%	27.3%	15.5%	2.6%	5983
Barrancabermeja	13.2%	50.1%	23.6%	12.2%	0.9%	2505
Barranquilla	13.2%	47.9%	23.9%	13.7%	1.2%	12395
Bello	13.0%	51.3%	22.7%	12.1%	0.8%	3831
Bogotá, D.C.	10.7%	57.2%	20.3%	10.9%	0.8%	66800
Bolívar	16.0%	36.5%	27.7%	17.3%	2.5%	11151
Boyacá	11.1%	50.7%	25.1%	12.3%	0.7%	9253
Bucaramanga	11.5%	55.1%	21.7%	10.8%	0.8%	5292
Buenaventura	15.1%	41.3%	26.2%	15.1%	2.3%	4157
Buga	11.1%	50.8%	21.7%	15.3%	1.1%	1232

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Caldas	13.3%	46.4%	26.0%	13.4%	0.9%	5745
Cali	13.0%	52.4%	21.2%	12.3%	1.1%	19608
Caquetá	12.9%	42.7%	27.4%	15.5%	1.4%	3243
Cartagena	14.3%	47.2%	23.3%	13.5%	1.7%	11444
Cartago	11.5%	51.1%	24.7%	11.8%	0.9%	1275
Casanare	12.3%	48.5%	25.8%	12.4%	1.1%	3063
Cauca	13.7%	44.0%	25.3%	14.9%	2.1%	12549
Cesar	12.2%	42.9%	28.7%	15.1%	1.2%	8455
Chocó	16.2%	35.8%	26.6%	18.5%	2.9%	3818
Chía	10.0%	61.6%	17.2%	10.5%	0.7%	1455
Ciénaga	14.1%	44.4%	25.0%	14.6%	1.9%	1510
Cundinamarca	10.2%	53.1%	24.4%	11.7%	0.6%	16385
Córdoba	13.8%	39.2%	28.1%	17.1%	1.9%	13345
Cúcuta	13.4%	49.2%	24.3%	12.3%	0.9%	7402
Dosquebradas	11.8%	53.9%	22.7%	10.8%	0.9%	1853
Duitama	9.2%	63.2%	18.9%	8.2%	0.6%	1405
Envigado	11.1%	62.3%	16.8%	9.5%	0.4%	1411
Facatativá	9.9%	57.4%	22.0%	10.1%	0.6%	1406
Florencia	13.9%	47.8%	25.1%	12.2%	1.1%	2079
Floridablanca	9.7%	56.4%	21.4%	11.4%	1.2%	2598
Fusagasugá	11.1%	54.6%	23.2%	10.4%	0.7%	1235
Girardot	14.1%	50.7%	22.1%	10.8%	2.3%	901
Girón	12.9%	51.5%	23.7%	11.2%	0.7%	1515
Guainía	10.7%	40.8%	32.0%	14.5%	2.0%	512
Guaviare	13.9%	46.0%	25.2%	13.6%	1.3%	920
Huila	11.4%	47.6%	26.3%	14.1%	0.6%	8186
Ibagué	11.4%	54.1%	22.6%	11.4%	0.6%	5529
Ipiales	12.2%	53.6%	21.6%	12.0%	0.6%	1480
Itagüí	14.1%	52.6%	19.0%	13.2%	1.1%	2031
Jamundí	15.3%	45.0%	24.7%	13.8%	1.2%	1116
La Guajira	15.8%	38.9%	25.5%	17.8%	2.0%	3926
Lorica	14.3%	43.0%	24.5%	16.1%	2.1%	1541
Magangué	14.2%	37.8%	27.3%	18.8%	2.0%	1660
Magdalena	15.5%	38.6%	27.0%	16.5%	2.4%	9131
Maicao	14.5%	39.6%	28.2%	15.8%	1.9%	2161
Malambo	13.7%	46.0%	25.6%	13.0%	1.8%	1286
Manizales	11.3%	54.2%	22.2%	11.8%	0.6%	3134
Medellín	13.8%	48.7%	23.6%	12.7%	1.3%	20626
Meta	12.2%	46.4%	27.3%	12.9%	1.3%	6019
Montería	14.5%	42.4%	27.3%	14.5%	1.2%	5509

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GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Mosquera	10.3%	59.2%	20.3%	9.7%	0.5%	1281
Nariño	11.1%	50.4%	23.2%	13.6%	1.7%	9244
Neiva	13.1%	49.9%	23.9%	12.4%	0.7%	3674
Norte de Santander	11.2%	49.3%	25.7%	12.7%	1.1%	8006
Palmira	13.0%	54.4%	21.0%	11.0%	0.6%	2770
Pasto	10.7%	56.4%	20.5%	11.9%	0.6%	4040
Pereira	12.6%	51.4%	23.5%	11.7%	0.7%	4349
Piedecuesta	11.2%	52.4%	24.0%	11.4%	0.9%	1487
Pitalito	11.3%	49.4%	23.9%	14.6%	0.8%	1588
Popayán	11.2%	54.9%	22.3%	10.9%	0.7%	3099
Putumayo	13.2%	45.2%	26.8%	13.2%	1.6%	4157
Quibdó	13.3%	40.8%	26.8%	16.9%	2.2%	1328
Quindío	12.3%	46.9%	25.6%	14.0%	1.3%	2454
Riohacha	15.8%	39.0%	26.8%	16.4%	2.0%	2580
Rionegro	11.3%	54.1%	21.5%	11.8%	1.3%	1193
Risaralda	12.7%	44.9%	28.0%	13.0%	1.4%	2797
Sabaneta	14.7%	53.9%	21.9%	9.3%	0.2%	516
Sahagún	10.6%	46.6%	26.7%	14.3%	1.8%	1215
San Andrés	12.4%	46.7%	26.5%	13.3%	1.1%	548
Santa Marta	13.6%	47.1%	23.5%	14.4%	1.4%	5835
Santander	11.2%	51.2%	24.9%	11.9%	0.7%	8650
Sincelejo	13.3%	46.9%	23.4%	15.0%	1.5%	3223
Soacha	12.4%	52.8%	22.1%	12.1%	0.6%	5626
Sogamoso	10.3%	57.8%	21.0%	10.4%	0.5%	1510
Soledad	14.0%	49.5%	22.9%	12.3%	1.3%	5490
Sucre	14.7%	40.1%	28.0%	15.6%	1.6%	7745
Tolima	11.9%	45.9%	26.1%	14.7%	1.4%	9703
Tuluá	12.8%	53.1%	20.8%	12.6%	0.7%	2140
Tumaco	16.3%	33.8%	26.8%	19.3%	3.8%	2367
Tunja	9.3%	61.3%	20.3%	8.6%	0.6%	1869
Turbo	16.8%	37.5%	26.5%	17.2%	2.1%	2128
Uribia	16.4%	31.2%	27.9%	20.7%	3.7%	1099
Valle del Cauca	12.1%	48.4%	25.1%	13.4%	0.9%	8458
Valledupar	12.2%	47.9%	25.3%	13.7%	0.8%	5280
Vichada	12.7%	41.2%	27.9%	15.0%	3.1%	771
Villavicencio	12.3%	53.6%	22.1%	11.0%	1.0%	5771
Yopal	12.2%	50.8%	23.7%	12.8%	0.6%	1996
Yumbo	11.7%	50.6%	21.5%	15.4%	0.7%	1256
Zipaquirá	8.7%	58.6%	21.8%	10.1%	0.8%	1282
Colombia	12.6%	48.7%	24.2%	13.2%	1.3%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• Pregunta 28.

Al final del período cretáceo, la Tierra tuvo constantes cambios como la desaparición de los dinosaurios, fuertes terremotos, un aumento en la temperatura predominando los climas cálidos y el aumento del nivel de los mares. También aparecieron gran parte de las montañas que formaron la cordillera de los Andes. ¿Por qué se formaron las montañas de la cordillera de los Andes?

- A. Porque se arrastró gran cantidad de nieve de los picos más altos de las montañas formando más montañas.
- B. Porque muchos huesos de dinosaurios quedaron amontonados y luego se cubrieron por tierra y se formaron así las montañas.
- C. Porque los fuertes terremotos movieron grandes masas del suelo que se unieron y se formaron así montañas.
- D. Porque el clima, al ser seco, permitió que el viento por mucho tiempo transportara grandes cantidades de tierra que formaron las montañas.

• Estructura

Competencia	Explicación de fenómenos
Componente	Entorno físico
Afirmación	Comprender y describir la ubicación y características de la tierra y algunos cuerpos celestes en nuestro sistema solar.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	C



GRADO 5° - CIENCIAS NATURALES

- Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	14.2%	17.9%	36.1%	29.1%	2.8%	974
Antioquia	15.0%	14.7%	44.0%	24.6%	1.6%	29322
Apartadó	14.9%	18.8%	40.1%	24.5%	1.8%	1767
Arauca	14.3%	13.8%	45.1%	25.3%	1.5%	2669
Armenia	15.1%	14.9%	48.4%	20.2%	1.4%	2580
Atlántico	15.1%	17.7%	38.7%	25.9%	2.6%	5983
Barrancabermeja	14.5%	13.6%	47.6%	23.0%	1.3%	2505
Barranquilla	15.5%	14.8%	43.9%	24.6%	1.3%	12395
Bello	14.9%	13.4%	49.8%	21.0%	1.0%	3831
Bogotá, D.C.	12.0%	11.2%	55.0%	20.7%	1.1%	66800
Bolívar	16.5%	19.0%	35.1%	26.8%	2.5%	11151
Boyacá	14.3%	13.5%	48.5%	22.7%	1.0%	9253
Bucaramanga	13.0%	11.8%	51.9%	22.3%	1.1%	5292
Buenaventura	16.0%	17.3%	39.1%	25.1%	2.5%	4157
Buga	15.9%	11.9%	45.6%	25.2%	1.4%	1232
Caldas	14.1%	14.1%	47.3%	23.4%	1.0%	5745
Cali	13.9%	12.6%	50.1%	22.2%	1.3%	19608
Caquetá	16.4%	17.4%	40.6%	24.1%	1.4%	3243
Cartagena	15.5%	16.0%	42.9%	23.9%	1.8%	11444
Cartago	15.1%	12.5%	45.9%	25.2%	1.3%	1275
Casanare	14.0%	16.1%	44.9%	23.8%	1.2%	3063
Cauca	14.1%	15.1%	45.7%	22.9%	2.2%	12549
Cesar	15.4%	16.3%	40.5%	26.4%	1.4%	8455
Chocó	17.7%	18.5%	35.0%	26.1%	2.7%	3818
Chía	9.6%	9.5%	59.0%	20.9%	1.0%	1455
Ciénaga	16.3%	17.9%	39.3%	24.1%	2.4%	1510
Cundinamarca	12.2%	12.0%	53.5%	21.4%	0.8%	16385
Córdoba	15.9%	17.8%	37.4%	27.1%	1.8%	13345
Cúcuta	15.1%	14.3%	45.3%	23.8%	1.4%	7402
Dosquebradas	13.9%	10.8%	51.4%	22.7%	1.1%	1853
Duitama	11.5%	10.8%	57.2%	19.9%	0.6%	1405
Envigado	11.6%	9.6%	60.1%	18.4%	0.4%	1411
Facatativá	10.4%	11.7%	54.2%	23.3%	0.5%	1406
Florencia	16.0%	15.5%	44.2%	23.3%	1.0%	2079
Floridablanca	13.4%	12.0%	53.1%	20.4%	1.1%	2598
Fusagasugá	12.5%	10.4%	50.0%	25.9%	1.1%	1235
Girardot	14.3%	13.3%	45.6%	23.6%	3.1%	901

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	15.2%	14.3%	49.5%	20.0%	1.0%	1515
Guainía	15.0%	11.7%	39.3%	31.4%	2.5%	512
Guaviare	13.5%	17.4%	44.9%	22.4%	1.8%	920
Huila	13.8%	14.8%	47.1%	23.7%	0.7%	8186
Ibagué	12.5%	11.9%	51.9%	22.9%	0.7%	5529
Ipiales	12.1%	12.2%	56.9%	18.0%	0.8%	1480
Itagüí	17.5%	13.6%	45.6%	21.9%	1.4%	2031
Jamundí	14.1%	15.3%	42.7%	26.3%	1.6%	1116
La Guajira	15.4%	17.4%	38.6%	26.3%	2.3%	3926
Lorica	15.9%	17.1%	40.6%	24.7%	1.7%	1541
Magangué	16.9%	19.9%	34.7%	26.7%	1.8%	1660
Magdalena	14.9%	18.6%	37.5%	26.8%	2.1%	9131
Maicao	15.8%	17.0%	37.3%	27.6%	2.2%	2161
Malambo	14.4%	16.9%	45.3%	21.5%	1.9%	1286
Manizales	12.1%	10.7%	54.9%	21.5%	0.8%	3134
Medellín	14.9%	13.9%	45.7%	24.2%	1.4%	20626
Meta	15.9%	15.2%	43.6%	23.9%	1.4%	6019
Montería	16.5%	17.6%	40.0%	24.6%	1.3%	5509
Mosquera	12.1%	8.4%	57.0%	21.5%	0.9%	1281
Nariño	13.0%	12.9%	51.4%	20.9%	1.8%	9244
Neiva	14.3%	13.8%	47.7%	23.4%	0.8%	3674
Norte de Santander	15.0%	14.5%	47.4%	22.0%	1.2%	8006
Palmira	13.1%	11.7%	51.0%	23.5%	0.7%	2770
Pasto	11.7%	11.7%	55.3%	20.5%	0.7%	4040
Pereira	14.0%	12.0%	50.8%	22.5%	0.7%	4349
Piedecuesta	13.4%	14.3%	50.2%	20.8%	1.3%	1487
Pitalito	13.7%	14.4%	49.9%	21.2%	0.8%	1588
Popayán	12.4%	12.3%	53.8%	20.4%	1.0%	3099
Putumayo	15.8%	16.1%	43.6%	22.8%	1.8%	4157
Quibdó	17.4%	16.6%	39.2%	25.1%	1.7%	1328
Quindío	13.9%	15.8%	47.8%	21.4%	1.1%	2454
Riohacha	16.7%	18.4%	37.6%	25.0%	2.4%	2580
Rionegro	13.3%	11.7%	54.0%	20.0%	1.0%	1193
Risaralda	14.1%	12.1%	48.5%	24.0%	1.3%	2797
Sabaneta	14.7%	10.9%	56.8%	17.2%	0.4%	516
Sahagún	17.3%	13.8%	39.5%	27.4%	2.0%	1215
San Andrés	16.4%	16.4%	43.6%	22.1%	1.5%	548
Santa Marta	14.8%	15.3%	43.7%	24.8%	1.4%	5835
Santander	13.3%	14.3%	50.2%	21.2%	0.9%	8650
Sincelejo	14.3%	15.5%	44.3%	24.2%	1.6%	3223

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	14.2%	13.0%	48.7%	22.9%	1.1%	5626
Sogamoso	12.7%	11.4%	55.2%	20.1%	0.6%	1510
Soledad	15.2%	14.5%	44.7%	24.0%	1.6%	5490
Sucre	16.1%	17.7%	38.1%	26.6%	1.6%	7745
Tolima	14.7%	15.2%	45.3%	23.5%	1.4%	9703
Tuluá	14.1%	12.2%	49.3%	23.6%	0.8%	2140
Tumaco	16.5%	18.6%	35.0%	26.0%	3.9%	2367
Tunja	11.5%	11.2%	56.2%	20.0%	1.0%	1869
Turbo	18.9%	18.6%	34.3%	25.9%	2.3%	2128
Uribia	17.4%	20.9%	32.4%	25.7%	3.6%	1099
Valle del Cauca	14.3%	13.8%	46.3%	24.4%	1.1%	8458
Valledupar	13.7%	14.1%	44.1%	27.0%	1.0%	5280
Vichada	14.7%	16.7%	39.3%	26.1%	3.2%	771
Villavicencio	13.3%	13.7%	49.1%	22.6%	1.3%	5771
Yopal	15.6%	15.0%	44.9%	23.4%	1.1%	1996
Yumbo	14.7%	12.7%	46.6%	25.1%	0.9%	1256
Zipaquirá	12.6%	9.0%	55.5%	21.7%	1.2%	1282
Colombia	14.2%	14.2%	46.8%	23.3%	1.4%	496903

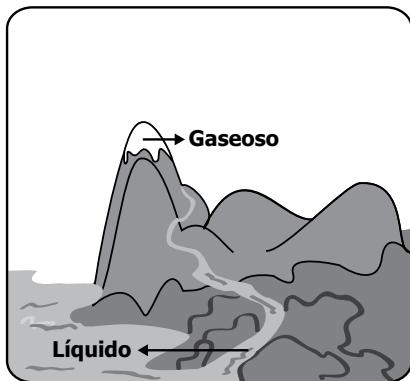
*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



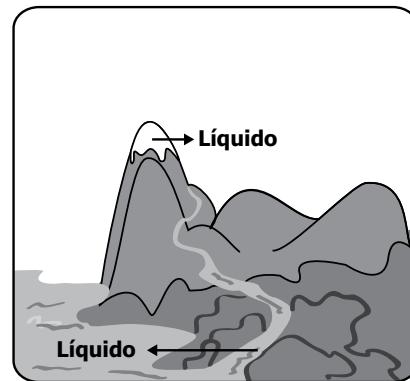
• **Pregunta 29.**

* ¿Cuál de los siguientes esquemas representa correctamente los estados del agua?

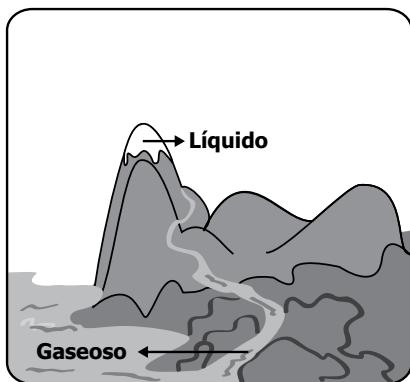
A.



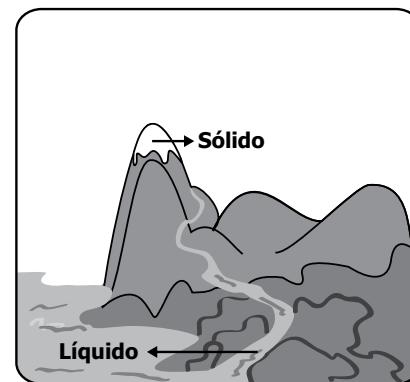
B.



C.



D.



* -Pregunta modificada respecto a su versión original.



GRADO 5° - CIENCIAS NATURALES

• Estructura

Competencia	Uso comprensivo del conocimiento científico
Componente	Entorno físico
Afirmación	Comprender que existe una gran diversidad de materiales que se pueden diferenciar a partir de sus propiedades.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	D

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	16.0%	16.9%	21.3%	43.4%	2.4%	974
Antioquia	14.3%	13.7%	17.4%	53.3%	1.2%	29322
Apartadó	16.8%	15.4%	19.6%	45.9%	2.2%	1767
Arauca	13.3%	14.9%	17.1%	53.7%	1.0%	2669
Armenia	13.3%	13.9%	14.4%	57.5%	0.9%	2580
Atlántico	16.9%	15.8%	20.2%	45.0%	2.1%	5983
Barrancabermeja	12.9%	12.2%	13.9%	60.1%	0.9%	2505
Barranquilla	13.7%	12.7%	15.9%	56.7%	1.0%	12395
Bello	13.1%	11.5%	14.7%	60.0%	0.6%	3831
Bogotá, D.C.	10.4%	10.9%	11.1%	66.9%	0.7%	66800
Bolívar	18.8%	17.8%	23.6%	37.6%	2.2%	11151
Boyacá	9.8%	9.4%	15.7%	64.6%	0.6%	9253
Bucaramanga	10.2%	10.3%	11.8%	67.1%	0.7%	5292
Buenaventura	16.9%	15.2%	19.8%	45.8%	2.2%	4157
Buga	14.1%	13.2%	13.9%	58.0%	0.7%	1232
Caldas	15.1%	12.8%	16.1%	55.2%	0.8%	5745
Cali	13.7%	12.3%	12.3%	60.9%	0.8%	19608
Caquetá	16.4%	15.0%	19.1%	48.8%	0.7%	3243
Cartagena	14.3%	14.4%	16.3%	53.4%	1.5%	11444
Cartago	16.3%	13.1%	12.9%	56.8%	0.9%	1275
Casanare	13.0%	11.9%	16.3%	58.1%	0.8%	3063
Cauca	16.0%	14.8%	18.2%	49.5%	1.5%	12549
Cesar	16.1%	15.4%	19.8%	47.9%	0.8%	8455
Chocó	18.7%	17.5%	24.3%	37.2%	2.3%	3818
Chía	9.1%	9.3%	10.6%	70.4%	0.5%	1455

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Ciénaga	17.0%	16.0%	20.6%	44.2%	2.3%	1510
Cundinamarca	11.4%	10.3%	14.3%	63.6%	0.5%	16385
Córdoba	17.6%	16.7%	22.8%	41.6%	1.4%	13345
Cúcuta	12.2%	11.3%	14.9%	60.9%	0.8%	7402
Dosquebradas	13.5%	12.1%	12.6%	61.1%	0.6%	1853
Duitama	8.7%	9.6%	11.4%	70.0%	0.4%	1405
Envigado	8.7%	11.4%	9.8%	69.7%	0.4%	1411
Facatativá	10.6%	9.2%	12.4%	67.4%	0.4%	1406
Florencia	14.8%	13.6%	16.5%	54.3%	0.8%	2079
Floridablanca	7.2%	10.0%	11.4%	71.0%	0.4%	2598
Fusagasugá	8.8%	8.4%	13.2%	68.6%	1.0%	1235
Girardot	15.8%	12.0%	11.4%	58.4%	2.4%	901
Girón	13.8%	10.7%	16.1%	58.9%	0.5%	1515
Guainía	12.7%	13.5%	18.8%	52.9%	2.1%	512
Guaviare	16.2%	14.8%	18.6%	49.3%	1.1%	920
Huila	15.0%	13.1%	15.8%	55.6%	0.5%	8186
Ibagué	11.5%	10.6%	13.3%	64.2%	0.4%	5529
Ipiales	9.9%	11.4%	13.5%	65.0%	0.2%	1480
Itagüí	13.0%	12.5%	13.4%	60.3%	0.8%	2031
Jamundí	16.9%	14.8%	16.7%	50.4%	1.2%	1116
La Guajira	16.0%	16.4%	19.2%	46.8%	1.6%	3926
Lorica	17.1%	14.3%	19.6%	47.5%	1.4%	1541
Magangué	16.5%	17.9%	23.9%	40.2%	1.5%	1660
Magdalena	18.2%	17.4%	22.4%	40.3%	1.7%	9131
Maicao	17.0%	16.0%	21.7%	43.0%	2.3%	2161
Malambo	14.1%	14.9%	19.1%	50.5%	1.3%	1286
Manizales	11.7%	10.0%	13.8%	63.9%	0.5%	3134
Medellín	12.2%	14.0%	15.2%	57.6%	1.0%	20626
Meta	13.5%	13.8%	15.9%	55.6%	1.2%	6019
Montería	16.2%	15.1%	19.3%	48.4%	1.0%	5509
Mosquera	9.4%	8.7%	10.4%	70.7%	0.8%	1281
Nariño	13.1%	12.3%	15.4%	57.9%	1.3%	9244
Neiva	14.3%	10.9%	15.2%	59.0%	0.6%	3674
Norte de Santander	12.5%	12.6%	15.3%	59.0%	0.7%	8006
Palmira	12.6%	10.9%	12.4%	63.5%	0.5%	2770
Pasto	10.5%	11.1%	12.6%	65.4%	0.5%	4040
Pereira	15.0%	12.4%	13.2%	59.0%	0.4%	4349
Piedecuesta	9.7%	11.2%	13.2%	65.1%	0.8%	1487
Pitalito	13.4%	11.7%	17.5%	56.8%	0.6%	1588
Popayán	12.4%	11.3%	13.1%	62.8%	0.4%	3099

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Putumayo	12.5%	13.1%	16.6%	56.2%	1.5%	4157
Quibdó	17.8%	17.2%	20.4%	43.0%	1.5%	1328
Quindío	14.8%	13.0%	15.2%	56.1%	1.0%	2454
Riohacha	17.5%	15.5%	20.6%	44.8%	1.6%	2580
Rionegro	9.6%	11.7%	11.8%	66.3%	0.6%	1193
Risaralda	15.3%	13.0%	15.7%	54.6%	1.5%	2797
Sabaneta	7.0%	11.0%	10.3%	71.7%	0.0%	516
Sahagún	15.4%	15.6%	18.4%	48.9%	1.6%	1215
San Andrés	16.1%	14.6%	16.1%	52.9%	0.4%	548
Santa Marta	15.0%	14.9%	17.3%	51.8%	1.0%	5835
Santander	11.5%	10.9%	14.5%	62.5%	0.5%	8650
Sincelejo	13.4%	15.2%	16.0%	54.4%	0.9%	3223
Soacha	13.7%	11.9%	13.5%	60.5%	0.5%	5626
Sogamoso	10.1%	10.1%	13.0%	66.4%	0.3%	1510
Soledad	13.2%	12.8%	16.7%	56.1%	1.2%	5490
Sucre	17.8%	16.4%	21.4%	43.4%	1.1%	7745
Tolima	16.1%	12.6%	17.5%	52.7%	1.1%	9703
Tuluá	12.6%	12.7%	13.5%	60.6%	0.7%	2140
Tumaco	20.2%	18.8%	23.6%	34.6%	2.8%	2367
Tunja	9.3%	10.4%	10.2%	69.7%	0.4%	1869
Turbo	18.7%	17.8%	24.3%	37.5%	1.8%	2128
Uribia	19.4%	18.7%	24.9%	34.8%	2.3%	1099
Valle del Cauca	16.0%	12.6%	14.8%	55.9%	0.7%	8458
Valledupar	14.2%	12.3%	17.3%	55.5%	0.7%	5280
Vichada	14.4%	14.7%	21.3%	47.3%	2.3%	771
Villavicencio	11.9%	11.8%	14.1%	61.5%	0.7%	5771
Yopal	11.9%	12.0%	14.4%	61.2%	0.6%	1996
Yumbo	16.7%	12.6%	13.5%	56.7%	0.5%	1256
Zipaquirá	9.2%	8.6%	13.4%	68.2%	0.6%	1282
Colombia	13.6%	13.0%	15.8%	56.5%	1.0%	496903

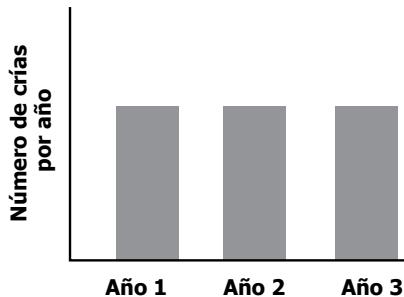
*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



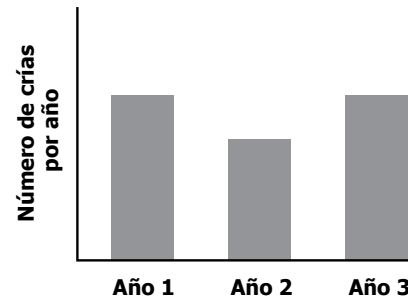
• **Pregunta 30.**

Susana está estudiando el número de crías que nacen por año en un criadero de perros. Ella cree que el número de crías de perros no va a variar en tres años. ¿Cuál de las gráficas muestra la idea de Susana?

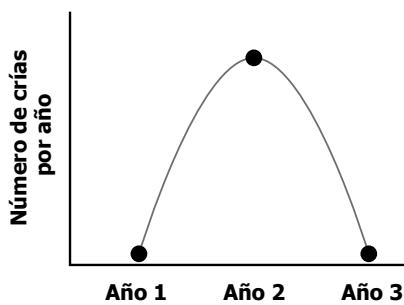
A.



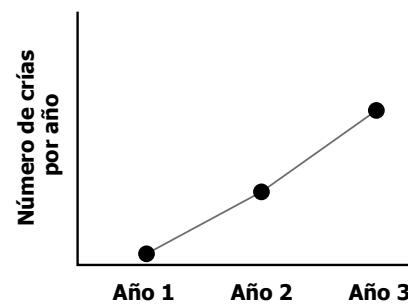
B.



C.



D.



• **Estructura**

Competencia	Indagar
Componente	Entorno vivo
Afirmación	Observar y relacionar patrones en los datos para evaluar las predicciones.
Nivel de desempeño	Avanzado
Respuesta Correcta	A



GRADO 5° - CIENCIAS NATURALES

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	33.5%	25.1%	18.7%	20.3%	2.5%	974
Antioquia	41.9%	21.7%	16.2%	18.6%	1.5%	29322
Apartadó	37.9%	24.3%	17.5%	17.9%	2.4%	1767
Arauca	39.8%	21.8%	16.3%	20.8%	1.3%	2669
Armenia	41.6%	21.8%	16.4%	18.9%	1.2%	2580
Atlántico	35.9%	22.4%	18.6%	20.3%	2.8%	5983
Barrancabermeja	37.9%	23.4%	17.7%	19.9%	1.1%	2505
Barranquilla	39.0%	24.0%	15.8%	20.0%	1.2%	12395
Bello	45.8%	22.5%	14.3%	16.4%	1.0%	3831
Bogotá, D.C.	46.4%	21.3%	13.8%	17.6%	0.9%	66800
Bolívar	32.3%	23.5%	19.9%	21.6%	2.6%	11151
Boyacá	41.9%	22.0%	15.5%	19.9%	0.8%	9253
Bucaramanga	45.0%	21.6%	14.5%	18.0%	0.9%	5292
Buenaventura	40.2%	23.3%	16.3%	17.8%	2.4%	4157
Buga	40.6%	23.4%	15.1%	20.0%	1.0%	1232
Caldas	42.9%	21.0%	16.0%	19.1%	1.0%	5745
Cali	44.6%	21.9%	14.3%	18.0%	1.2%	19608
Caquetá	39.2%	21.6%	17.7%	20.2%	1.3%	3243
Cartagena	40.3%	23.1%	16.5%	18.0%	2.1%	11444
Cartago	42.9%	21.2%	15.8%	18.9%	1.2%	1275
Casanare	38.9%	23.7%	16.5%	20.0%	1.0%	3063
Cauca	43.2%	19.9%	16.3%	18.7%	1.9%	12549
Cesar	37.7%	22.4%	17.6%	21.1%	1.2%	8455
Chocó	38.1%	21.0%	19.3%	19.2%	2.4%	3818
Chía	47.5%	18.9%	15.3%	17.6%	0.7%	1455
Ciénaga	40.6%	21.9%	15.3%	19.9%	2.3%	1510
Cundinamarca	45.5%	21.0%	14.1%	18.7%	0.7%	16385
Córdoba	35.1%	23.2%	20.0%	19.9%	1.8%	13345
Cúcuta	40.4%	23.4%	15.1%	20.1%	0.9%	7402
Dosquebradas	44.5%	22.7%	13.7%	18.2%	1.0%	1853
Duitama	52.3%	20.0%	12.2%	15.2%	0.3%	1405
Envigado	58.3%	13.2%	13.0%	15.1%	0.4%	1411
Facatativá	43.8%	20.1%	15.9%	19.8%	0.4%	1406
Florencia	39.5%	22.0%	15.5%	21.7%	1.3%	2079
Floridablanca	44.1%	21.6%	15.5%	18.0%	0.8%	2598
Fusagasugá	44.5%	22.3%	12.7%	19.6%	0.9%	1235
Girardot	38.7%	24.0%	15.1%	19.2%	3.0%	901

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ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	38.9%	24.0%	17.1%	19.1%	1.0%	1515
Guainía	43.0%	20.1%	17.4%	17.6%	2.0%	512
Guaviare	37.9%	21.3%	17.4%	21.8%	1.5%	920
Huila	42.0%	21.6%	15.2%	20.5%	0.7%	8186
Ibagué	47.1%	21.0%	13.6%	17.7%	0.6%	5529
Ipiales	45.1%	24.3%	13.0%	17.5%	0.1%	1480
Itagüí	44.5%	22.0%	15.8%	16.6%	1.1%	2031
Jamundí	37.8%	24.0%	16.2%	20.7%	1.3%	1116
La Guajira	36.7%	21.2%	19.3%	21.1%	1.7%	3926
Lorica	40.2%	20.1%	17.8%	20.9%	1.1%	1541
Magangué	33.4%	23.7%	19.6%	21.1%	2.2%	1660
Magdalena	36.5%	22.1%	18.5%	20.6%	2.4%	9131
Maicao	32.6%	22.1%	19.9%	22.4%	2.9%	2161
Malambo	41.6%	21.6%	15.6%	19.1%	2.0%	1286
Manizales	47.9%	20.7%	13.6%	16.8%	1.0%	3134
Medellín	41.3%	22.1%	16.6%	18.7%	1.3%	20626
Meta	38.8%	23.7%	17.2%	19.1%	1.2%	6019
Montería	35.8%	24.3%	18.8%	19.9%	1.1%	5509
Mosquera	44.7%	22.1%	14.1%	18.0%	1.1%	1281
Nariño	47.3%	18.6%	13.8%	18.6%	1.7%	9244
Neiva	40.1%	25.0%	14.7%	19.4%	0.8%	3674
Norte de Santander	44.3%	20.9%	15.1%	18.9%	0.8%	8006
Palmira	43.7%	22.5%	14.6%	18.8%	0.5%	2770
Pasto	46.3%	22.5%	11.8%	18.6%	0.8%	4040
Pereira	44.6%	22.1%	14.0%	18.8%	0.6%	4349
Piedecuesta	42.1%	24.4%	15.0%	17.4%	1.1%	1487
Pitalito	38.5%	21.7%	17.5%	21.0%	1.2%	1588
Popayán	47.1%	21.3%	14.1%	16.9%	0.7%	3099
Putumayo	38.0%	22.9%	16.4%	20.9%	1.9%	4157
Quibdó	36.6%	21.8%	21.2%	18.6%	1.8%	1328
Quindío	39.6%	23.1%	16.3%	19.3%	1.6%	2454
Riohacha	34.1%	23.6%	18.4%	21.5%	2.4%	2580
Rionegro	46.2%	21.0%	14.2%	18.0%	0.7%	1193
Risaralda	43.3%	21.5%	14.9%	18.7%	1.6%	2797
Sabaneta	53.3%	18.2%	12.6%	15.7%	0.2%	516
Sahagún	34.2%	25.8%	17.2%	20.7%	2.0%	1215
San Andrés	31.4%	25.9%	17.5%	23.9%	1.3%	548
Santa Marta	40.3%	22.7%	16.3%	19.2%	1.6%	5835
Santander	44.1%	20.4%	15.3%	19.4%	0.7%	8650
Sincelejo	39.6%	22.8%	17.7%	18.5%	1.4%	3223

Continúa en la siguiente página



SABER 5 - LENGUAJE

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	41.7%	24.3%	14.5%	18.9%	0.7%	5626
Sogamoso	45.8%	22.6%	15.5%	15.8%	0.3%	1510
Soledad	42.5%	21.6%	15.4%	19.0%	1.5%	5490
Sucre	36.6%	22.2%	19.6%	20.1%	1.5%	7745
Tolima	41.7%	21.8%	16.5%	18.6%	1.3%	9703
Tuluá	43.9%	21.7%	15.3%	18.1%	1.0%	2140
Tumaco	31.5%	23.2%	22.1%	20.3%	3.0%	2367
Tunja	47.7%	20.2%	13.8%	17.9%	0.4%	1869
Turbo	32.2%	24.4%	19.9%	21.2%	2.2%	2128
Uribia	26.9%	20.1%	22.8%	27.7%	2.5%	1099
Valle del Cauca	42.9%	23.3%	14.7%	18.3%	0.9%	8458
Valledupar	41.5%	23.0%	16.6%	17.8%	1.1%	5280
Vichada	33.1%	23.5%	17.3%	24.0%	2.2%	771
Villavicencio	42.2%	23.6%	15.4%	17.7%	1.1%	5771
Yopal	40.3%	24.1%	15.5%	19.3%	0.8%	1996
Yumbo	41.4%	22.7%	15.8%	19.3%	0.7%	1256
Zipaquirá	48.0%	20.2%	13.0%	17.8%	1.0%	1282
Colombia	41.8%	22.0%	15.9%	18.9%	1.3%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• **Pregunta 31.**

A dos estudiantes se les entregan las siguientes imágenes de aves.

1		2		3	
Se alimenta de	Ratones	Peces	Granos		

De acuerdo a las imágenes, los estudiantes podrían concluir:

- A. La forma de las patas y de los picos está relacionada con la dieta de estas aves.
- B. La forma de las alas es un indicador de la dieta de las aves.
- C. Las aves de pico corto son hembras y las de pico largo son machos.
- D. Las patas con dedos en forma de gancho son para aves que se alimentan de granos.

• **Estructura**

Competencia	Indagar
Componente	Entorno vivo
Afirmación	Observar y relacionar patrones en los datos para evaluar las predicciones.
Nivel de desempeño	Avanzado
Respuesta Correcta	A



GRADO 5° - CIENCIAS NATURALES

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	33.2%	17.4%	23.3%	23.6%	2.6%	974
Antioquia	40.9%	18.1%	20.0%	19.5%	1.4%	29322
Apartadó	36.0%	20.5%	21.2%	20.1%	2.2%	1767
Arauca	38.8%	19.9%	20.0%	20.0%	1.3%	2669
Armenia	44.0%	19.4%	18.1%	17.4%	1.1%	2580
Atlántico	35.9%	20.0%	21.0%	20.3%	2.8%	5983
Barrancabermeja	45.1%	16.7%	19.0%	18.0%	1.2%	2505
Barranquilla	43.8%	17.9%	19.8%	17.3%	1.3%	12395
Bello	46.2%	16.8%	19.2%	16.8%	1.0%	3831
Bogotá, D.C.	50.5%	15.6%	17.7%	15.2%	1.0%	66800
Bolívar	30.8%	20.7%	22.0%	23.9%	2.6%	11151
Boyacá	43.7%	19.0%	18.3%	18.1%	0.8%	9253
Bucaramanga	48.9%	16.9%	18.0%	15.3%	0.9%	5292
Buenaventura	38.2%	17.4%	21.1%	20.8%	2.4%	4157
Buga	45.3%	16.6%	18.3%	18.8%	1.0%	1232
Caldas	41.9%	17.8%	19.8%	19.5%	1.0%	5745
Cali	48.5%	16.1%	18.3%	15.8%	1.1%	19608
Caquetá	37.5%	19.8%	19.9%	21.4%	1.4%	3243
Cartagena	43.8%	17.1%	19.2%	18.0%	2.0%	11444
Cartago	43.5%	17.3%	20.0%	18.0%	1.2%	1275
Casanare	40.9%	19.6%	20.5%	18.0%	1.0%	3063
Cauca	41.5%	16.5%	19.1%	20.9%	2.0%	12549
Cesar	37.6%	17.9%	21.3%	22.0%	1.1%	8455
Chocó	33.3%	17.5%	21.5%	25.2%	2.4%	3818
Chía	55.1%	16.0%	15.7%	12.3%	0.8%	1455
Ciénaga	37.9%	18.2%	18.9%	22.1%	2.8%	1510
Cundinamarca	47.6%	16.8%	17.7%	17.0%	0.8%	16385
Córdoba	34.1%	19.8%	21.4%	23.0%	1.8%	13345
Cúcuta	41.4%	18.6%	20.5%	18.5%	1.0%	7402
Dosquebradas	46.1%	15.9%	21.0%	15.7%	1.2%	1853
Duitama	53.8%	15.8%	16.4%	13.7%	0.4%	1405
Envigado	61.8%	11.8%	14.4%	11.6%	0.4%	1411
Facatativá	52.7%	13.9%	16.1%	16.7%	0.6%	1406
Florencia	39.5%	20.3%	19.5%	19.5%	1.2%	2079
Floridablanca	51.9%	16.0%	17.2%	14.2%	0.7%	2598
Fusagasugá	45.0%	16.7%	19.7%	17.7%	0.9%	1235
Girardot	44.0%	19.0%	20.0%	14.4%	2.7%	901

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	45.1%	18.4%	20.8%	15.0%	0.7%	1515
Guainía	34.8%	17.8%	18.9%	25.6%	2.9%	512
Guaviare	39.9%	19.9%	20.4%	18.6%	1.2%	920
Huila	41.9%	19.1%	18.5%	19.9%	0.7%	8186
Ibagué	48.9%	15.8%	18.3%	16.3%	0.8%	5529
Ipiales	48.4%	15.3%	18.3%	17.5%	0.5%	1480
Itagüí	47.9%	16.1%	19.6%	15.2%	1.1%	2031
Jamundí	41.3%	17.0%	21.3%	19.0%	1.3%	1116
La Guajira	35.5%	17.5%	21.1%	24.2%	1.8%	3926
Lorica	36.7%	18.3%	22.5%	21.5%	1.0%	1541
Magangué	32.5%	20.2%	22.4%	23.0%	1.9%	1660
Magdalena	34.6%	19.0%	20.3%	23.9%	2.2%	9131
Maicao	31.9%	19.3%	21.3%	24.2%	3.1%	2161
Malambo	46.1%	15.5%	19.2%	17.0%	2.2%	1286
Manizales	47.8%	16.7%	18.8%	15.9%	0.9%	3134
Medellín	45.7%	17.1%	19.7%	16.1%	1.3%	20626
Meta	39.9%	19.1%	20.2%	19.3%	1.5%	6019
Montería	38.8%	19.6%	21.1%	19.2%	1.2%	5509
Mosquera	52.5%	16.3%	15.5%	14.9%	0.7%	1281
Nariño	45.3%	17.1%	16.2%	19.8%	1.6%	9244
Neiva	42.8%	18.3%	19.7%	18.5%	0.8%	3674
Norte de Santander	42.3%	17.2%	19.4%	20.2%	0.9%	8006
Palmira	48.5%	16.8%	18.2%	16.0%	0.5%	2770
Pasto	49.4%	16.2%	16.9%	16.7%	0.7%	4040
Pereira	45.7%	17.1%	19.8%	16.9%	0.5%	4349
Piedecuesta	47.1%	18.5%	17.6%	15.5%	1.3%	1487
Pitalito	42.8%	18.8%	20.3%	17.4%	0.8%	1588
Popayán	48.5%	16.3%	18.4%	16.1%	0.7%	3099
Putumayo	42.0%	18.2%	19.8%	18.3%	1.8%	4157
Quibdó	35.6%	17.2%	22.9%	21.5%	2.8%	1328
Quindío	43.0%	18.1%	19.1%	18.6%	1.3%	2454
Riohacha	35.9%	18.6%	21.6%	21.9%	2.1%	2580
Rionegro	48.5%	16.3%	18.3%	16.0%	0.8%	1193
Risaralda	43.1%	16.4%	19.4%	19.7%	1.5%	2797
Sabaneta	57.2%	13.6%	15.7%	13.0%	0.6%	516
Sahagún	37.3%	20.4%	21.2%	19.5%	1.6%	1215
San Andrés	42.2%	17.2%	24.1%	16.1%	0.5%	548
Santa Marta	41.7%	18.0%	20.1%	18.6%	1.5%	5835
Santander	46.1%	17.4%	17.9%	17.7%	0.9%	8650
Sincelejo	41.5%	19.0%	19.3%	18.9%	1.3%	3223

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

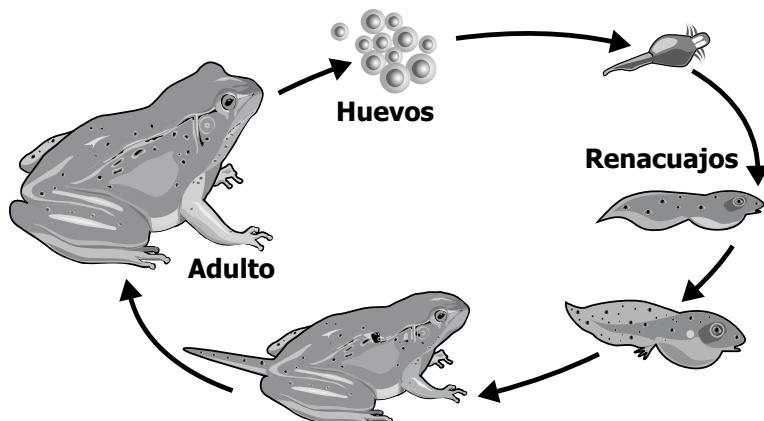
ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	46.0%	16.6%	19.4%	17.1%	0.9%	5626
Sogamoso	50.7%	18.3%	15.8%	14.9%	0.3%	1510
Soledad	42.9%	17.4%	19.1%	19.3%	1.3%	5490
Sucre	34.8%	19.3%	21.4%	23.3%	1.3%	7745
Tolima	41.5%	17.8%	19.5%	19.9%	1.2%	9703
Tuluá	47.6%	15.5%	18.5%	17.5%	1.0%	2140
Tumaco	30.2%	19.2%	23.2%	24.3%	3.2%	2367
Tunja	51.9%	17.5%	15.4%	14.4%	0.8%	1869
Turbo	30.7%	21.1%	24.1%	21.7%	2.4%	2128
Uribia	25.2%	18.3%	24.5%	29.6%	2.5%	1099
Valle del Cauca	43.0%	17.9%	19.0%	19.2%	0.9%	8458
Valledupar	41.3%	17.3%	18.6%	21.6%	1.1%	5280
Vichada	38.3%	15.8%	19.2%	23.9%	2.9%	771
Villavicencio	47.5%	16.9%	18.6%	15.9%	1.0%	5771
Yopal	45.9%	16.7%	20.7%	16.0%	0.6%	1996
Yumbo	47.8%	15.3%	18.4%	17.3%	1.3%	1256
Zipaquirá	49.6%	14.0%	18.2%	17.6%	0.7%	1282
Colombia	43.5%	17.5%	19.3%	18.5%	1.3%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• **Pregunta 32.**

En la siguiente figura se presentan las etapas del ciclo de vida de una rana.



En un estanque donde hay una población de ranas, un hombre pone varios peces y estos peces se alimentan únicamente de los renacuajos pequeños. Con el tiempo, las ranas del estanque pueden desaparecer porque

- A. las ranas adultas dejan de poner huevos para no alimentar a los peces.
- B. el estanque se llena de muchos renacuajos y los peces se mueren.
- C. el estanque se llena de muchas ranas adultas y ninguna continúa el ciclo.
- D. los renacuajos no llegan a ser adultos y no se continúa el ciclo.

• **Estructura**

Competencia	Explicación de fenómenos
Componente	Entorno vivo
Afirmación	Comprender que los seres vivos pasan por diferentes etapas durante su ciclo de vida.
Nivel de desempeño	Avanzado
Respuesta Correcta	D



GRADO 5° - CIENCIAS NATURALES

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	26.6%	16.7%	20.0%	34.4%	2.3%	974
Antioquia	26.6%	15.5%	18.6%	38.0%	1.4%	29322
Apartadó	25.2%	15.3%	20.7%	36.7%	2.1%	1767
Arauca	26.2%	15.5%	18.2%	38.9%	1.3%	2669
Armenia	23.4%	15.5%	19.4%	40.6%	1.1%	2580
Atlántico	24.6%	17.3%	20.1%	35.5%	2.6%	5983
Barrancabermeja	24.8%	13.9%	18.0%	42.1%	1.2%	2505
Barranquilla	24.6%	15.0%	18.6%	40.5%	1.3%	12395
Bello	25.6%	13.9%	16.7%	42.8%	1.0%	3831
Bogotá, D.C.	23.8%	11.6%	15.8%	48.0%	0.9%	66800
Bolívar	26.7%	18.8%	20.7%	31.2%	2.6%	11151
Boyacá	25.0%	13.5%	17.8%	43.1%	0.7%	9253
Bucaramanga	24.1%	11.6%	14.7%	48.5%	1.1%	5292
Buenaventura	26.3%	16.5%	18.6%	36.4%	2.2%	4157
Buga	26.5%	15.3%	17.9%	39.0%	1.2%	1232
Caldas	26.5%	15.0%	18.5%	39.0%	1.1%	5745
Cali	25.1%	12.8%	17.0%	43.9%	1.3%	19608
Caquetá	27.6%	19.4%	18.5%	33.2%	1.2%	3243
Cartagena	24.6%	15.4%	17.5%	40.8%	1.7%	11444
Cartago	22.7%	16.6%	19.0%	40.4%	1.3%	1275
Casanare	27.0%	14.3%	18.0%	39.7%	1.0%	3063
Cauca	25.8%	16.1%	17.6%	38.6%	1.8%	12549
Cesar	25.1%	16.9%	19.5%	37.7%	0.8%	8455
Chocó	28.1%	18.6%	18.5%	32.5%	2.4%	3818
Chía	19.9%	9.4%	12.9%	57.3%	0.5%	1455
Ciénaga	26.0%	17.7%	18.6%	35.7%	1.9%	1510
Cundinamarca	23.4%	12.2%	16.9%	46.7%	0.8%	16385
Córdoba	26.3%	17.5%	20.3%	34.5%	1.4%	13345
Cúcuta	26.0%	15.0%	17.3%	40.5%	1.1%	7402
Dosquebradas	25.3%	13.4%	16.4%	43.7%	1.1%	1853
Duitama	23.5%	10.3%	14.5%	51.2%	0.4%	1405
Envigado	18.2%	10.1%	12.9%	58.2%	0.6%	1411
Facatativá	24.8%	11.9%	15.9%	46.9%	0.6%	1406
Florencia	26.5%	15.7%	20.0%	36.8%	1.0%	2079
Floridablanca	22.3%	12.0%	15.5%	49.3%	0.9%	2598
Fusagasugá	27.6%	12.6%	16.0%	43.2%	0.7%	1235
Girardot	27.2%	15.6%	18.4%	36.0%	2.8%	901

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	22.8%	13.9%	17.0%	45.5%	0.7%	1515
Guainía	30.5%	17.4%	16.6%	33.2%	2.3%	512
Guaviare	28.4%	16.4%	17.8%	36.1%	1.3%	920
Huila	25.8%	15.0%	18.0%	40.3%	0.8%	8186
Ibagué	23.8%	12.4%	17.0%	46.2%	0.6%	5529
Ipiales	26.1%	13.2%	14.3%	46.0%	0.4%	1480
Itagüí	25.6%	13.2%	17.7%	42.1%	1.3%	2031
Jamundí	25.4%	18.1%	18.2%	36.7%	1.5%	1116
La Guajira	27.3%	17.8%	18.7%	34.4%	1.7%	3926
Lorica	22.5%	17.5%	19.9%	39.1%	1.0%	1541
Magangué	27.5%	17.6%	20.8%	32.8%	1.3%	1660
Magdalena	25.3%	18.0%	19.4%	35.2%	2.1%	9131
Maicao	26.6%	18.0%	20.1%	33.6%	1.7%	2161
Malambo	26.3%	16.6%	15.5%	39.8%	1.8%	1286
Manizales	24.0%	12.2%	16.7%	46.3%	0.9%	3134
Medellín	25.1%	14.1%	18.7%	40.7%	1.3%	20626
Meta	26.7%	15.3%	19.4%	37.1%	1.5%	6019
Montería	25.6%	16.1%	20.7%	36.4%	1.2%	5509
Mosquera	23.4%	10.8%	15.5%	49.4%	0.9%	1281
Nariño	24.1%	13.7%	16.9%	43.9%	1.3%	9244
Neiva	26.6%	14.8%	18.4%	39.3%	1.0%	3674
Norte de Santander	23.8%	15.7%	17.0%	42.6%	1.0%	8006
Palmira	25.8%	12.3%	16.8%	44.7%	0.4%	2770
Pasto	25.3%	11.7%	14.2%	48.0%	0.8%	4040
Pereira	24.4%	14.6%	17.9%	42.4%	0.6%	4349
Piedecuesta	23.5%	13.2%	16.6%	45.6%	1.1%	1487
Pitalito	24.2%	15.0%	21.0%	39.1%	0.7%	1588
Popayán	23.8%	12.3%	16.3%	46.7%	0.8%	3099
Putumayo	25.2%	15.9%	18.9%	38.4%	1.6%	4157
Quibdó	26.0%	14.9%	24.0%	32.6%	2.5%	1328
Quindío	24.2%	16.4%	18.8%	39.5%	1.1%	2454
Riohacha	27.1%	17.8%	20.7%	32.7%	1.7%	2580
Rionegro	21.6%	13.0%	18.4%	45.9%	1.1%	1193
Risaralda	24.3%	14.8%	18.9%	40.4%	1.6%	2797
Sabaneta	22.5%	12.4%	12.6%	52.1%	0.4%	516
Sahagún	24.3%	16.9%	18.5%	38.7%	1.6%	1215
San Andrés	24.1%	16.6%	16.2%	42.7%	0.4%	548
Santa Marta	25.1%	15.3%	17.7%	40.6%	1.3%	5835
Santander	23.8%	13.7%	16.2%	45.7%	0.7%	8650
Sincelejo	24.0%	15.1%	20.3%	39.4%	1.2%	3223

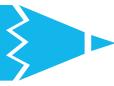
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GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	25.3%	13.3%	16.9%	43.7%	0.8%	5626
Sogamoso	23.4%	10.7%	16.0%	49.3%	0.6%	1510
Soledad	25.3%	15.5%	18.5%	39.5%	1.3%	5490
Sucre	26.2%	17.3%	19.9%	35.0%	1.5%	7745
Tolima	26.5%	16.2%	18.7%	37.3%	1.2%	9703
Tuluá	25.1%	13.5%	18.2%	42.6%	0.6%	2140
Tumaco	27.0%	19.4%	21.8%	28.9%	3.0%	2367
Tunja	22.0%	9.6%	16.0%	51.8%	0.6%	1869
Turbo	27.6%	19.3%	20.3%	30.7%	2.1%	2128
Uribia	27.7%	19.7%	23.4%	26.3%	2.9%	1099
Valle del Cauca	26.1%	15.2%	17.7%	40.1%	0.9%	8458
Valledupar	26.7%	14.1%	18.0%	40.2%	1.0%	5280
Vichada	32.7%	18.9%	14.4%	31.0%	3.0%	771
Villavicencio	25.7%	13.3%	17.2%	42.6%	1.2%	5771
Yopal	24.9%	15.7%	16.5%	42.0%	0.8%	1996
Yumbo	24.9%	14.3%	19.6%	40.4%	0.8%	1256
Zipaquirá	22.8%	11.6%	14.4%	50.5%	0.6%	1282
Colombia	25.1%	14.6%	17.8%	41.3%	1.2%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• Pregunta 33.

Un grupo de estudiantes quería comprobar que la luz es un factor de gran importancia en el crecimiento de las plantas. ¿Cuál de los siguientes procedimientos les permitiría a los estudiantes comprobar este fenómeno?

- A. Sembrar varias plantas a la luz y comparar su desarrollo.
- B. Sembrar varias plantas en la oscuridad y observar su desarrollo.
- C. Sembrar plantas en la luz y en la oscuridad, y comparar su desarrollo.
- D. Observar el desarrollo de las plantas durante un día y una noche.

• Estructura

Competencia	Indagar
Componente	Entorno vivo
Afirmación	Utilizar algunas habilidades de pensamiento y de procedimiento para evaluar predicciones.
Nivel de desempeño	Avanzado
Respuesta Correcta	C

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	30.7%	12.8%	24.6%	30.3%	1.5%	974
Antioquia	31.9%	11.6%	33.4%	21.9%	1.1%	29322
Apartadó	33.1%	15.2%	27.4%	22.4%	1.9%	1767
Arauca	31.5%	13.0%	34.9%	19.9%	0.7%	2669
Armenia	31.9%	14.3%	35.4%	17.4%	1.0%	2580
Atlántico	30.1%	15.5%	29.1%	22.9%	2.3%	5983
Barrancabermeja	34.0%	11.7%	32.5%	21.0%	0.8%	2505
Barranquilla	31.9%	12.3%	33.5%	21.7%	0.7%	12395
Bello	33.2%	10.4%	35.9%	20.0%	0.5%	3831
Bogotá, D.C.	30.2%	9.5%	41.1%	18.6%	0.7%	66800
Bolívar	32.3%	15.5%	25.1%	25.2%	1.9%	11151
Boyacá	29.8%	11.6%	37.5%	20.6%	0.5%	9253
Bucaramanga	29.4%	9.4%	41.8%	18.9%	0.5%	5292

Continúa en la siguiente página

GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Buenaventura	33.0%	12.7%	29.0%	23.6%	1.6%	4157
Buga	32.6%	9.9%	35.3%	21.5%	0.6%	1232
Caldas	31.2%	10.9%	35.1%	22.1%	0.7%	5745
Cali	32.3%	10.3%	36.0%	20.6%	0.8%	19608
Caquetá	29.5%	13.4%	31.1%	25.0%	0.9%	3243
Cartagena	33.6%	12.2%	31.1%	21.9%	1.2%	11444
Cartago	32.9%	11.7%	35.6%	19.2%	0.6%	1275
Casanare	30.6%	11.5%	33.7%	23.4%	0.9%	3063
Cauca	28.3%	11.2%	33.2%	26.0%	1.3%	12549
Cesar	29.4%	14.0%	30.2%	25.8%	0.6%	8455
Chocó	32.5%	14.2%	28.2%	23.2%	2.0%	3818
Chía	22.8%	9.2%	49.3%	18.1%	0.5%	1455
Ciénaga	29.3%	13.6%	29.9%	25.4%	1.9%	1510
Cundinamarca	28.1%	10.4%	40.8%	20.2%	0.5%	16385
Córdoba	31.4%	15.3%	27.1%	25.2%	1.1%	13345
Cúcuta	32.8%	11.4%	35.1%	20.2%	0.6%	7402
Dosquebradas	31.7%	9.1%	38.2%	20.1%	0.9%	1853
Duitama	27.5%	9.5%	45.6%	17.3%	0.1%	1405
Envigado	24.9%	10.5%	51.9%	12.3%	0.4%	1411
Facatativá	29.7%	10.6%	41.3%	18.3%	0.2%	1406
Florencia	31.9%	12.7%	31.4%	23.3%	0.7%	2079
Floridablanca	30.4%	9.4%	43.8%	16.1%	0.3%	2598
Fusagasugá	29.5%	11.0%	40.8%	17.9%	0.8%	1235
Girardot	34.0%	11.8%	32.0%	20.0%	2.3%	901
Girón	33.8%	12.9%	35.9%	16.9%	0.5%	1515
Guainía	31.6%	10.4%	26.0%	30.7%	1.4%	512
Guaviare	30.9%	13.3%	30.4%	24.9%	0.5%	920
Huila	28.8%	11.1%	36.0%	23.6%	0.4%	8186
Ibagué	28.4%	10.3%	40.9%	20.0%	0.3%	5529
Ipiales	29.5%	11.1%	38.1%	21.1%	0.2%	1480
Itagüí	37.0%	13.3%	33.9%	15.1%	0.7%	2031
Jamundí	35.4%	11.6%	30.6%	21.6%	0.8%	1116
La Guajira	29.6%	12.2%	30.6%	26.3%	1.3%	3926
Lorica	29.5%	14.2%	31.6%	23.9%	0.8%	1541
Magangué	32.7%	13.9%	26.6%	26.0%	1.0%	1660
Magdalena	30.2%	13.9%	27.9%	26.4%	1.6%	9131
Maicao	31.4%	15.1%	26.1%	25.7%	1.7%	2161
Malambo	29.7%	12.0%	34.4%	22.6%	1.3%	1286
Manizales	29.7%	10.2%	40.1%	19.5%	0.4%	3134
Medellín	34.4%	12.8%	33.8%	18.2%	0.9%	20626
Meta	30.8%	13.4%	31.2%	23.6%	1.0%	6019

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Montería	33.6%	14.1%	29.9%	21.8%	0.7%	5509
Mosquera	32.1%	7.1%	39.0%	21.1%	0.7%	1281
Nariño	28.3%	9.6%	37.7%	23.2%	1.1%	9244
Neiva	30.7%	12.7%	33.8%	22.4%	0.4%	3674
Norte de Santander	30.6%	11.2%	37.0%	20.5%	0.7%	8006
Palmira	29.7%	9.7%	39.6%	20.8%	0.2%	2770
Pasto	30.2%	9.4%	38.0%	21.8%	0.7%	4040
Pereira	31.2%	9.3%	38.4%	20.6%	0.5%	4349
Piedecuesta	29.6%	12.4%	40.2%	17.1%	0.7%	1487
Pitalito	30.0%	12.7%	34.4%	22.4%	0.5%	1588
Popayán	29.9%	10.6%	37.4%	21.6%	0.6%	3099
Putumayo	32.0%	12.0%	31.7%	23.1%	1.3%	4157
Quibdó	30.5%	14.1%	27.7%	26.2%	1.5%	1328
Quindío	31.3%	11.3%	35.8%	20.3%	1.4%	2454
Riohacha	34.3%	12.8%	24.1%	27.5%	1.3%	2580
Rionegro	27.9%	9.4%	43.2%	19.0%	0.5%	1193
Risaralda	30.3%	10.8%	34.5%	23.1%	1.4%	2797
Sabaneta	29.5%	10.1%	43.4%	17.1%	0.0%	516
Sahagún	30.0%	12.3%	32.2%	24.1%	1.5%	1215
San Andrés	38.1%	13.9%	29.4%	18.4%	0.2%	548
Santa Marta	32.6%	12.2%	32.0%	22.4%	0.8%	5835
Santander	28.4%	10.8%	39.5%	20.8%	0.4%	8650
Sincelejo	31.9%	15.0%	32.7%	19.5%	0.9%	3223
Soacha	35.8%	10.6%	34.4%	18.7%	0.6%	5626
Sogamoso	30.0%	11.3%	44.6%	13.8%	0.3%	1510
Soledad	31.7%	12.9%	33.2%	21.5%	0.7%	5490
Sucre	32.0%	14.1%	28.2%	24.9%	0.9%	7745
Tolima	29.6%	11.9%	33.6%	23.8%	1.1%	9703
Tuluá	29.8%	10.0%	38.1%	21.8%	0.4%	2140
Tumaco	32.9%	15.6%	24.4%	24.3%	2.8%	2367
Tunja	28.7%	11.1%	44.2%	15.7%	0.3%	1869
Turbo	36.2%	15.3%	23.6%	23.7%	1.2%	2128
Uribia	28.1%	15.5%	20.1%	33.8%	2.5%	1099
Valle del Cauca	29.6%	11.0%	36.0%	22.8%	0.5%	8458
Valledupar	32.2%	10.2%	32.5%	24.5%	0.6%	5280
Vichada	28.0%	13.2%	29.8%	27.0%	1.9%	771
Villavicencio	32.1%	11.9%	35.0%	20.2%	0.8%	5771
Yopal	33.0%	12.2%	34.3%	19.9%	0.6%	1996
Yumbo	31.5%	11.1%	35.8%	20.9%	0.6%	1256
Zipaquirá	29.3%	7.8%	42.5%	20.0%	0.4%	1282
Colombia	31.0%	11.7%	34.9%	21.5%	0.9%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• Pregunta 34.

Sí un zorro es encerrado en un cuarto donde no hay oxígeno y solo hay dióxido de carbono. Despues de 2 horas, ¿qué le ocurrirá al zorro?

- A. Se enfermará de los pulmones.
- B. Se morirá.
- C. Respirará normalmente.
- D. Podrá hacer fotosíntesis.

• Estructura

Competencia	Uso comprensivo del conocimiento científico
Componente	Entorno vivo
Afirmación	Comprender que los seres vivos dependen del funcionamiento e interacción de sus partes.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	B

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	23.4%	50.0%	15.5%	8.6%	2.5%	974
Antioquia	23.7%	55.6%	10.9%	8.6%	1.3%	29322
Apartadó	22.9%	51.7%	12.6%	10.8%	2.0%	1767
Arauca	21.7%	58.0%	12.0%	7.3%	1.0%	2669
Armenia	23.1%	56.7%	11.0%	7.8%	1.4%	2580
Atlántico	21.2%	51.1%	15.3%	9.7%	2.7%	5983
Barrancabermeja	21.1%	60.3%	10.9%	6.8%	0.8%	2505
Barranquilla	22.7%	57.3%	11.2%	7.5%	1.2%	12395
Bello	23.4%	57.8%	10.2%	7.9%	0.8%	3831
Bogotá, D.C.	24.0%	59.7%	9.0%	6.5%	0.8%	66800
Bolívar	21.5%	49.3%	16.5%	10.4%	2.3%	11151
Boyacá	20.2%	62.7%	10.5%	5.9%	0.6%	9253
Bucaramanga	22.4%	61.6%	9.4%	5.9%	0.7%	5292
Buenaventura	22.6%	55.2%	12.1%	7.9%	2.2%	4157

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Buga	24.3%	57.8%	10.1%	7.0%	0.9%	1232
Caldas	22.9%	56.9%	11.3%	8.1%	0.8%	5745
Cali	24.4%	57.9%	9.6%	7.1%	1.0%	19608
Caquetá	21.6%	56.4%	12.1%	8.8%	1.1%	3243
Cartagena	22.3%	56.3%	11.7%	8.3%	1.4%	11444
Cartago	25.3%	55.2%	11.2%	7.3%	1.0%	1275
Casanare	21.5%	58.8%	11.9%	6.7%	0.9%	3063
Cauca	21.7%	59.9%	10.5%	6.2%	1.6%	12549
Cesar	22.3%	55.3%	13.0%	8.7%	0.7%	8455
Chocó	22.9%	48.6%	15.1%	10.9%	2.4%	3818
Chía	21.9%	64.3%	8.0%	5.2%	0.7%	1455
Ciénaga	21.9%	52.3%	15.0%	8.8%	2.0%	1510
Cundinamarca	22.1%	60.6%	10.2%	6.3%	0.8%	16385
Córdoba	20.3%	53.1%	15.8%	9.4%	1.3%	13345
Cúcuta	22.3%	59.6%	10.4%	6.9%	0.8%	7402
Dosquebradas	25.3%	56.4%	9.2%	7.9%	1.2%	1853
Duitama	20.1%	65.7%	8.3%	5.7%	0.2%	1405
Envigado	21.8%	63.8%	8.9%	4.7%	0.8%	1411
Facatativá	21.0%	63.8%	8.7%	6.1%	0.4%	1406
Florencia	24.0%	55.7%	11.4%	8.0%	1.0%	2079
Floridablanca	21.9%	62.5%	9.6%	5.4%	0.7%	2598
Fusagasugá	21.1%	60.6%	10.4%	7.3%	0.6%	1235
Girardot	23.2%	58.4%	9.7%	6.4%	2.3%	901
Girón	22.2%	58.6%	11.8%	6.6%	0.7%	1515
Guainía	23.0%	52.9%	13.1%	9.4%	1.6%	512
Guaviare	23.2%	55.4%	12.0%	8.6%	0.9%	920
Huila	22.6%	60.7%	9.6%	6.6%	0.5%	8186
Ibagué	22.0%	61.3%	9.5%	6.6%	0.6%	5529
Ipiales	19.1%	66.0%	8.9%	5.8%	0.3%	1480
Itagüí	21.8%	57.5%	11.6%	7.9%	1.2%	2031
Jamundí	22.1%	56.3%	13.1%	7.5%	1.0%	1116
La Guajira	21.8%	53.0%	14.9%	9.1%	1.3%	3926
Lorica	21.0%	53.7%	14.1%	9.9%	1.2%	1541
Magangué	21.4%	49.0%	16.0%	12.0%	1.7%	1660
Magdalena	22.7%	50.9%	14.4%	10.0%	2.0%	9131
Maicao	22.9%	51.8%	15.4%	8.2%	1.7%	2161
Malambo	20.1%	56.1%	12.7%	9.0%	2.0%	1286
Manizales	25.2%	59.4%	8.9%	5.9%	0.5%	3134
Medellín	23.8%	53.3%	12.4%	9.3%	1.1%	20626
Meta	23.5%	56.5%	11.2%	7.5%	1.3%	6019
Montería	21.5%	54.7%	14.0%	8.8%	1.0%	5509

Continúa en la siguiente página

GRADO 5° - CIENCIAS NATURALES

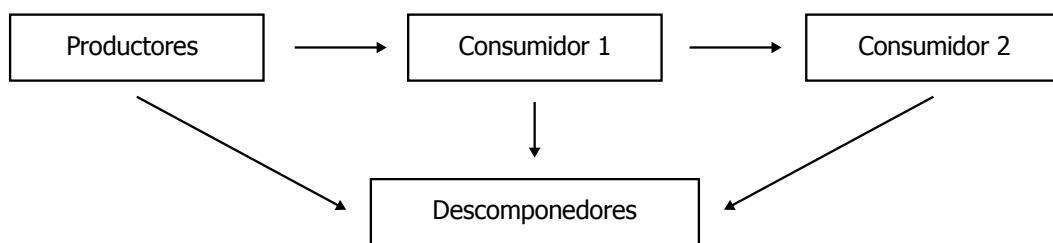
ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Mosquera	23.9%	60.1%	8.7%	6.5%	0.8%	1281
Nariño	20.7%	63.3%	9.0%	5.7%	1.3%	9244
Neiva	24.0%	58.4%	10.1%	6.9%	0.6%	3674
Norte de Santander	21.4%	61.7%	10.2%	5.9%	0.8%	8006
Palmira	24.1%	60.9%	8.7%	6.0%	0.3%	2770
Pasto	21.1%	66.2%	7.6%	4.6%	0.6%	4040
Pereira	26.2%	57.3%	9.1%	6.9%	0.5%	4349
Piedecuesta	20.1%	62.3%	10.8%	5.9%	1.0%	1487
Pitalito	24.1%	58.2%	9.6%	7.5%	0.6%	1588
Popayán	21.5%	64.6%	8.3%	5.1%	0.5%	3099
Putumayo	22.1%	58.6%	11.3%	6.6%	1.4%	4157
Quibdó	24.5%	49.8%	14.8%	9.0%	2.0%	1328
Quindío	22.2%	57.7%	11.1%	7.7%	1.3%	2454
Riohacha	23.4%	51.8%	13.7%	9.5%	1.6%	2580
Rionegro	23.3%	61.6%	7.7%	6.7%	0.7%	1193
Risaralda	24.9%	55.9%	10.7%	7.2%	1.3%	2797
Sabaneta	24.0%	57.8%	10.9%	7.0%	0.4%	516
Sahagún	19.4%	58.1%	11.5%	9.3%	1.6%	1215
San Andrés	21.5%	53.3%	16.4%	8.4%	0.4%	548
Santa Marta	23.9%	55.1%	12.2%	7.7%	1.1%	5835
Santander	20.4%	62.6%	10.3%	6.2%	0.5%	8650
Sincelejo	21.1%	56.6%	13.1%	8.1%	1.1%	3223
Soacha	24.7%	57.8%	9.5%	7.3%	0.7%	5626
Sogamoso	20.3%	65.7%	8.3%	5.4%	0.3%	1510
Soledad	24.0%	56.3%	10.8%	7.8%	1.1%	5490
Sucre	20.3%	54.3%	14.7%	9.5%	1.2%	7745
Tolima	22.7%	57.7%	11.0%	7.5%	1.2%	9703
Tuluá	26.6%	56.1%	8.9%	7.9%	0.6%	2140
Tumaco	21.4%	47.6%	17.4%	10.6%	3.0%	2367
Tunja	21.9%	61.5%	11.5%	4.5%	0.5%	1869
Turbo	21.5%	49.9%	16.3%	10.8%	1.6%	2128
Uribia	20.4%	46.8%	19.0%	11.6%	2.3%	1099
Valle del Cauca	22.4%	58.5%	10.6%	7.8%	0.8%	8458
Valledupar	22.7%	58.3%	10.8%	7.4%	0.8%	5280
Vichada	23.0%	55.0%	12.8%	6.5%	2.7%	771
Villavicencio	22.7%	58.4%	10.7%	7.3%	0.9%	5771
Yopal	25.2%	56.5%	10.8%	6.9%	0.6%	1996
Yumbo	25.6%	55.1%	9.4%	9.1%	0.8%	1256
Zipaquirá	24.9%	60.1%	9.4%	4.7%	0.9%	1282
Colombia	22.7%	57.5%	11.2%	7.5%	1.1%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• **Pregunta 35.**

Observa el siguiente esquema.



Una cadena alimentaria es el proceso en el cual se transfiere energía y nutrientes de unos organismos a otros. A partir de lo anterior puede afirmarse que este esquema

- A. es correcto, porque en la cadena alimentaria el consumidor 1 solo pasa energía a los productores.
- B. es incorrecto, porque los descomponedores transfieren energía al consumidor 2.
- C. es correcto, porque los productores son la base energética de toda la cadena alimentaria.
- D. es incorrecto, porque los productores no interactúan con el consumidor 2.

• **Estructura**

Competencia	Explicación de fenómenos.
Componente	Entorno vivo
Afirmación	Comprender que existen relaciones entre los seres vivos y el entorno y que ellos dependen de éstas.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	C



GRADO 5° - CIENCIAS NATURALES

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	19.5%	18.9%	46.0%	13.2%	2.4%	974
Antioquia	20.3%	15.5%	49.1%	13.4%	1.7%	29322
Apartadó	21.3%	16.9%	44.7%	14.8%	2.3%	1767
Arauca	17.3%	16.0%	51.4%	14.1%	1.1%	2669
Armenia	18.7%	15.9%	50.8%	13.1%	1.5%	2580
Atlántico	20.7%	17.1%	44.0%	14.9%	3.3%	5983
Barrancabermeja	20.3%	15.2%	51.7%	11.6%	1.2%	2505
Barranquilla	21.3%	16.0%	49.0%	12.3%	1.3%	12395
Bello	22.2%	14.1%	50.3%	12.3%	1.1%	3831
Bogotá, D.C.	17.9%	13.9%	53.9%	13.2%	1.0%	66800
Bolívar	21.6%	18.8%	41.8%	14.9%	2.9%	11151
Boyacá	17.4%	14.9%	53.5%	13.3%	0.8%	9253
Bucaramanga	19.0%	12.4%	55.6%	11.9%	1.1%	5292
Buenaventura	21.2%	16.2%	47.8%	12.5%	2.4%	4157
Buga	22.1%	14.8%	49.8%	11.6%	1.7%	1232
Caldas	19.3%	15.1%	51.4%	13.3%	0.9%	5745
Cali	20.7%	14.4%	51.3%	12.3%	1.3%	19608
Caquetá	18.8%	18.1%	48.0%	13.9%	1.1%	3243
Cartagena	21.5%	15.7%	47.7%	13.0%	2.0%	11444
Cartago	21.6%	15.5%	49.0%	13.0%	0.8%	1275
Casanare	18.4%	15.3%	50.4%	14.8%	1.0%	3063
Cauca	18.6%	14.4%	53.0%	12.2%	1.9%	12549
Cesar	19.3%	16.2%	49.2%	14.2%	1.1%	8455
Chocó	21.6%	16.8%	44.1%	14.6%	2.8%	3818
Chía	15.3%	12.2%	58.3%	13.3%	1.0%	1455
Ciénaga	19.8%	16.2%	45.8%	15.0%	3.2%	1510
Cundinamarca	16.8%	13.6%	55.5%	13.1%	1.0%	16385
Córdoba	20.9%	17.4%	44.3%	15.8%	1.7%	13345
Cúcuta	20.4%	14.8%	50.9%	12.7%	1.2%	7402
Dosquebradas	18.2%	14.9%	53.5%	11.9%	1.4%	1853
Duitama	15.5%	13.2%	58.6%	12.4%	0.3%	1405
Envigado	16.8%	14.0%	54.3%	14.1%	0.9%	1411
Facatativá	16.1%	14.3%	58.0%	11.0%	0.5%	1406
Florencia	22.6%	13.8%	49.4%	13.1%	1.1%	2079
Floridablanca	18.0%	15.1%	53.3%	12.3%	1.3%	2598
Fusagasugá	20.5%	11.8%	54.8%	11.8%	1.1%	1235
Girardot	20.1%	13.8%	50.5%	12.4%	3.2%	901

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	19.9%	16.6%	50.2%	12.7%	0.7%	1515
Guainía	23.6%	14.3%	47.3%	11.5%	3.3%	512
Guaviare	17.0%	16.1%	53.2%	12.8%	1.0%	920
Huila	17.0%	14.2%	54.8%	13.2%	0.8%	8186
Ibagué	17.7%	14.5%	54.5%	12.5%	0.8%	5529
Ipiales	17.0%	13.6%	55.5%	13.1%	0.7%	1480
Itagüí	22.8%	15.9%	47.9%	12.2%	1.2%	2031
Jamundí	24.5%	16.8%	44.8%	12.4%	1.6%	1116
La Guajira	20.0%	16.4%	46.5%	14.8%	2.3%	3926
Lorica	18.4%	17.0%	49.0%	13.8%	1.9%	1541
Magangué	21.4%	18.6%	43.9%	13.8%	2.3%	1660
Magdalena	20.3%	17.2%	45.2%	14.8%	2.5%	9131
Maicao	21.1%	17.0%	44.7%	14.8%	2.5%	2161
Malambo	18.7%	14.4%	51.1%	13.4%	2.4%	1286
Manizales	18.2%	13.8%	53.0%	14.2%	1.0%	3134
Medellín	22.0%	16.9%	46.2%	13.5%	1.5%	20626
Meta	19.9%	16.6%	48.9%	13.1%	1.5%	6019
Montería	22.8%	17.6%	44.3%	13.8%	1.4%	5509
Mosquera	17.3%	13.0%	58.2%	10.3%	1.2%	1281
Nariño	16.6%	13.5%	56.1%	12.2%	1.7%	9244
Neiva	20.2%	15.0%	50.9%	13.0%	0.8%	3674
Norte de Santander	18.7%	14.4%	53.5%	12.3%	1.1%	8006
Palmira	20.5%	13.3%	52.7%	12.8%	0.7%	2770
Pasto	16.9%	13.7%	56.2%	12.3%	0.9%	4040
Pereira	19.4%	15.1%	52.7%	11.9%	0.9%	4349
Piedecuesta	18.0%	13.3%	53.9%	13.6%	1.3%	1487
Pitalito	18.5%	16.8%	51.8%	11.7%	1.3%	1588
Popayán	19.4%	14.1%	53.4%	12.2%	0.9%	3099
Putumayo	19.1%	15.3%	50.7%	13.2%	1.7%	4157
Quibdó	21.6%	16.9%	44.2%	15.0%	2.3%	1328
Quindío	18.8%	14.2%	51.0%	14.4%	1.6%	2454
Riohacha	22.4%	17.8%	44.0%	13.8%	2.0%	2580
Rionegro	16.8%	14.1%	55.5%	12.4%	1.3%	1193
Risaralda	17.2%	14.9%	53.3%	12.8%	1.8%	2797
Sabaneta	20.3%	13.4%	51.4%	14.3%	0.6%	516
Sahagún	21.2%	16.7%	47.0%	12.9%	2.1%	1215
San Andrés	21.2%	18.4%	46.7%	12.8%	0.9%	548
Santa Marta	20.2%	16.6%	47.8%	13.7%	1.7%	5835
Santander	16.3%	13.2%	57.0%	12.8%	0.7%	8650
Sincelejo	22.4%	16.3%	45.5%	14.2%	1.5%	3223

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	20.3%	14.2%	52.0%	12.4%	1.1%	5626
Sogamoso	17.8%	14.7%	53.8%	13.0%	0.7%	1510
Soledad	22.9%	15.1%	47.7%	12.7%	1.6%	5490
Sucre	21.6%	16.7%	45.7%	14.4%	1.5%	7745
Tolima	18.9%	15.4%	50.9%	13.3%	1.5%	9703
Tuluá	20.0%	13.1%	52.9%	13.1%	0.8%	2140
Tumaco	22.1%	19.1%	39.0%	16.5%	3.5%	2367
Tunja	15.8%	14.9%	55.8%	12.8%	0.7%	1869
Turbo	22.7%	19.2%	40.6%	15.2%	2.3%	2128
Uribia	22.9%	17.1%	39.9%	17.0%	3.1%	1099
Valle del Cauca	19.7%	14.3%	51.8%	13.0%	1.2%	8458
Valledupar	20.0%	14.8%	50.3%	13.7%	1.3%	5280
Vichada	18.7%	15.4%	50.7%	12.6%	2.6%	771
Villavicencio	19.9%	14.6%	52.5%	11.8%	1.2%	5771
Yopal	20.7%	14.7%	50.5%	12.8%	1.3%	1996
Yumbo	18.7%	15.9%	50.3%	13.9%	1.2%	1256
Zipaquirá	18.1%	14.4%	54.6%	12.1%	0.9%	1282
Colombia	19.5%	15.2%	50.5%	13.3%	1.4%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• **Pregunta 36.**

Luis encontró cuatro tarjetas con las características específicas de las etapas de una mariposa, pero sin el nombre de cada etapa. Las tarjetas contienen la siguiente información.

Tarjeta 1	Dos pares de alas y una larga trompa que se enrolla en espiral.	
Tarjeta 2	Cuerpo cilíndrico y elástico, patas en el tórax y en el abdomen, y aumento de su tamaño original.	
Tarjeta 3	Formación de capullo, reorganización de los sistemas internos y externos para emergir.	
Tarjeta 4	Forma ovalada de 1 milímetro, colores claros semitransparentes.	

Si las etapas de una mariposa son huevo, oruga, capullo o crisálida y adulto, ¿cuál debería ser el nombre de cada tarjeta?

A.

Tarjeta 1	Adulto
Tarjeta 2	Capullo o crisálida
Tarjeta 3	Huevo
Tarjeta 4	Oruga

B.

Tarjeta 1	Capullo o crisálida
Tarjeta 2	Adulto
Tarjeta 3	Oruga
Tarjeta 4	Huevo

C.

Tarjeta 1	Adulto
Tarjeta 2	Oruga
Tarjeta 3	Huevo
Tarjeta 4	Capullo o crisálida

D.

Tarjeta 1	Adulto
Tarjeta 2	Oruga
Tarjeta 3	Capullo o crisálida
Tarjeta 4	Huevo



GRADO 5° - CIENCIAS NATURALES

• Estructura

Competencia	Uso comprensivo del conocimiento científico
Componente	Entorno vivo
Afirmación	Comprender que los seres vivos pasan por diferentes etapas durante su ciclo de vida.
Nivel de desempeño	Avanzado
Respuesta Correcta	D

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	15.8%	18.0%	24.3%	39.1%	2.8%	974
Antioquia	16.7%	20.2%	21.1%	40.2%	1.8%	29322
Apartadó	16.2%	21.0%	19.8%	40.7%	2.4%	1767
Arauca	14.8%	19.4%	18.9%	45.4%	1.5%	2669
Armenia	15.2%	18.8%	19.8%	44.7%	1.5%	2580
Atlántico	17.0%	21.8%	20.1%	37.7%	3.3%	5983
Barrancabermeja	13.8%	18.2%	17.0%	49.5%	1.4%	2505
Barranquilla	16.1%	18.6%	17.7%	46.3%	1.4%	12395
Bello	15.3%	18.0%	18.6%	47.0%	1.1%	3831
Bogotá, D.C.	12.2%	16.1%	16.7%	53.8%	1.2%	66800
Bolívar	18.7%	23.4%	22.7%	32.2%	3.1%	11151
Boyacá	13.6%	19.0%	19.6%	46.9%	0.9%	9253
Bucaramanga	11.8%	14.9%	16.6%	55.5%	1.2%	5292
Buenaventura	18.1%	21.7%	20.9%	36.4%	3.0%	4157
Buga	16.0%	19.2%	17.6%	46.1%	1.1%	1232
Caldas	14.8%	19.4%	19.3%	45.5%	1.0%	5745
Cali	14.1%	17.3%	18.0%	49.2%	1.5%	19608
Caquetá	17.0%	22.2%	22.6%	36.4%	1.8%	3243
Cartagena	16.9%	19.8%	18.8%	42.6%	2.0%	11444
Cartago	12.2%	18.7%	16.2%	51.5%	1.3%	1275
Casanare	13.8%	18.6%	20.6%	45.8%	1.2%	3063
Cauca	17.2%	19.8%	19.2%	41.7%	2.1%	12549
Cesar	16.5%	21.6%	20.8%	39.9%	1.2%	8455
Chocó	19.4%	24.3%	21.2%	32.1%	3.0%	3818
Chía	10.0%	14.8%	15.5%	59.0%	0.8%	1455
Ciénaga	17.9%	21.5%	20.5%	37.4%	2.7%	1510

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Cundinamarca	12.5%	17.1%	17.5%	51.9%	1.0%	16385
Córdoba	18.3%	22.4%	23.2%	34.2%	1.9%	13345
Cúcuta	13.9%	18.1%	18.4%	48.3%	1.2%	7402
Dosquebradas	13.9%	17.4%	17.8%	49.6%	1.3%	1853
Duitama	10.2%	13.6%	15.8%	59.8%	0.6%	1405
Envigado	12.3%	14.2%	15.0%	58.2%	0.4%	1411
Facatativá	13.4%	14.4%	17.1%	54.4%	0.6%	1406
Florencia	15.8%	20.2%	19.4%	42.7%	1.9%	2079
Floridablanca	11.8%	16.2%	15.4%	55.5%	1.2%	2598
Fusagasugá	12.7%	15.0%	19.2%	51.8%	1.3%	1235
Girardot	19.4%	16.1%	19.0%	42.3%	3.2%	901
Girón	15.0%	18.3%	20.0%	45.5%	1.2%	1515
Guainía	12.1%	24.6%	23.6%	36.5%	3.1%	512
Guaviare	17.7%	17.9%	20.2%	42.3%	1.8%	920
Huila	13.9%	18.2%	19.2%	47.8%	1.0%	8186
Ibagué	12.3%	17.1%	17.9%	51.7%	1.0%	5529
Ipiales	11.8%	17.4%	17.8%	52.1%	0.9%	1480
Itagüí	14.7%	18.8%	20.5%	44.8%	1.2%	2031
Jamundí	14.3%	19.0%	23.2%	41.8%	1.7%	1116
La Guajira	18.0%	22.4%	22.1%	35.4%	2.1%	3926
Lorica	19.3%	18.5%	19.9%	40.8%	1.6%	1541
Magangué	18.9%	23.3%	22.0%	34.1%	1.7%	1660
Magdalena	19.7%	21.6%	20.5%	35.3%	2.8%	9131
Maicao	15.7%	22.0%	23.5%	36.7%	2.0%	2161
Malambo	16.7%	19.2%	17.4%	43.9%	2.7%	1286
Manizales	12.5%	16.8%	19.3%	50.4%	1.0%	3134
Medellín	15.4%	19.7%	19.9%	43.4%	1.5%	20626
Meta	15.1%	21.0%	20.9%	41.2%	1.9%	6019
Montería	16.1%	20.8%	21.2%	40.5%	1.4%	5509
Mosquera	11.0%	13.4%	16.0%	58.0%	1.6%	1281
Nariño	14.6%	17.8%	17.1%	48.7%	1.8%	9244
Neiva	15.7%	17.6%	18.4%	47.2%	1.1%	3674
Norte de Santander	13.7%	19.6%	18.9%	46.5%	1.3%	8006
Palmira	12.7%	17.1%	16.9%	52.6%	0.7%	2770
Pasto	13.0%	16.4%	17.2%	52.4%	1.0%	4040
Pereira	14.6%	17.1%	17.9%	49.4%	0.9%	4349
Piedecuesta	10.9%	16.3%	17.5%	54.0%	1.3%	1487
Pitalito	14.7%	19.9%	20.5%	44.2%	0.8%	1588
Popayán	12.2%	17.8%	18.4%	50.6%	1.0%	3099
Putumayo	15.2%	20.2%	20.3%	42.4%	1.9%	4157

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Quibdó	19.4%	22.7%	22.4%	33.1%	2.4%	1328
Quindío	15.7%	19.6%	19.3%	43.6%	1.8%	2454
Riohacha	19.3%	22.7%	20.0%	35.7%	2.4%	2580
Rionegro	14.6%	16.4%	19.3%	48.5%	1.2%	1193
Risaralda	15.0%	18.1%	20.2%	44.7%	2.0%	2797
Sabaneta	12.4%	19.2%	16.7%	50.6%	1.2%	516
Sahagún	16.0%	20.5%	21.7%	39.4%	2.4%	1215
San Andrés	17.3%	19.7%	19.3%	42.7%	0.9%	548
Santa Marta	15.8%	18.9%	19.2%	44.4%	1.7%	5835
Santander	13.0%	18.0%	17.8%	50.4%	0.8%	8650
Sincelejo	16.2%	19.4%	19.5%	43.5%	1.4%	3223
Soacha	13.8%	17.5%	18.8%	48.7%	1.1%	5626
Sogamoso	11.4%	16.7%	17.4%	53.9%	0.7%	1510
Soledad	17.1%	18.7%	18.8%	43.7%	1.7%	5490
Sucre	18.5%	21.3%	22.0%	36.5%	1.7%	7745
Tolima	15.0%	19.0%	20.4%	43.9%	1.7%	9703
Tuluá	13.5%	15.4%	19.1%	50.9%	1.2%	2140
Tumaco	21.2%	22.4%	21.9%	30.2%	4.3%	2367
Tunja	11.8%	16.9%	16.5%	54.1%	0.7%	1869
Turbo	19.8%	21.3%	23.5%	32.9%	2.5%	2128
Uribia	18.6%	25.5%	22.4%	29.5%	4.1%	1099
Valle del Cauca	14.9%	18.5%	19.2%	46.2%	1.2%	8458
Valledupar	16.0%	19.1%	18.2%	45.3%	1.5%	5280
Vichada	13.7%	19.3%	22.2%	41.6%	3.1%	771
Villavicencio	13.9%	18.8%	17.9%	48.1%	1.3%	5771
Yopal	13.9%	17.8%	18.5%	48.7%	1.1%	1996
Yumbo	12.5%	19.4%	19.7%	47.2%	1.1%	1256
Zipaquirá	11.8%	14.3%	16.9%	56.0%	1.0%	1282
Colombia	15.0%	18.8%	19.1%	45.5%	1.6%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• Pregunta 37.

Las vacas son animales herbívoros que dependen de microorganismos en su sistema digestivo para aprovechar los nutrientes que les proporciona el pasto. En una finca le cayó un antibiótico al pasto que comen las vacas y una semana después las vacas perdieron peso. La pérdida de peso de las vacas se debería a que

- A. el pasto no hizo más fotosíntesis.
- B. el antibiótico secó el pasto.
- C. el antibiótico mató a los insectos que consumían las vacas.
- D. el antibiótico afectó a los microorganismos de las vacas.

• Estructura

Competencia	Uso comprensivo del conocimiento científico
Componente	Entorno vivo
Afirmación	Comprender que los seres vivos dependen del funcionamiento e interacción de sus partes.
Nivel de desempeño	Avanzado
Respuesta Correcta	D

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multmarca	Nº estudiantes
Amazonas	18.2%	26.9%	17.6%	34.9%	2.5%	974
Antioquia	15.7%	26.6%	15.4%	40.8%	1.6%	29322
Apartadó	18.3%	25.3%	16.1%	38.3%	2.0%	1767
Arauca	16.0%	28.1%	15.4%	39.6%	0.9%	2669
Armenia	16.6%	25.3%	15.2%	41.4%	1.6%	2580
Atlántico	17.1%	24.9%	18.2%	36.8%	3.0%	5983
Barrancabermeja	15.9%	26.6%	15.6%	40.8%	1.2%	2505
Barranquilla	17.0%	25.8%	15.6%	40.3%	1.3%	12395
Bello	16.3%	27.0%	12.8%	42.9%	1.0%	3831
Bogotá, D.C.	15.2%	25.8%	13.3%	44.7%	1.1%	66800
Bolívar	18.6%	24.7%	19.6%	34.5%	2.5%	11151
Boyacá	13.0%	28.3%	14.5%	43.3%	0.8%	9253
Bucaramanga	15.5%	26.5%	11.7%	45.2%	1.2%	5292

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GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Buenaventura	17.0%	23.9%	16.0%	40.5%	2.5%	4157
Buga	16.4%	26.1%	13.8%	42.5%	1.1%	1232
Caldas	14.3%	27.9%	14.4%	42.3%	1.1%	5745
Cali	15.8%	25.9%	13.5%	43.5%	1.4%	19608
Caquetá	16.5%	28.8%	17.0%	36.5%	1.1%	3243
Cartagena	17.1%	24.0%	16.8%	40.3%	1.9%	11444
Cartago	15.9%	25.2%	13.6%	44.3%	1.0%	1275
Casanare	14.5%	28.5%	15.7%	39.8%	1.4%	3063
Cauca	15.8%	27.3%	15.3%	39.7%	1.8%	12549
Cesar	16.8%	26.7%	16.5%	39.0%	1.1%	8455
Chocó	17.4%	24.3%	20.6%	35.1%	2.5%	3818
Chía	14.0%	24.4%	12.9%	47.6%	1.1%	1455
Ciénaga	19.4%	22.4%	17.3%	38.2%	2.7%	1510
Cundinamarca	13.4%	25.7%	14.1%	45.9%	0.9%	16385
Córdoba	18.1%	26.2%	18.9%	35.4%	1.5%	13345
Cúcuta	17.1%	26.7%	14.9%	40.2%	1.1%	7402
Dosquebradas	16.0%	23.7%	12.1%	47.2%	1.0%	1853
Duitama	14.3%	26.5%	14.2%	44.6%	0.4%	1405
Envigado	14.3%	25.8%	13.7%	45.5%	0.6%	1411
Facatativá	14.7%	26.2%	10.4%	48.2%	0.5%	1406
Florencia	16.2%	26.9%	16.5%	39.2%	1.2%	2079
Floridablanca	15.1%	26.0%	13.0%	44.8%	1.2%	2598
Fusagasugá	13.3%	25.8%	14.3%	45.3%	1.3%	1235
Girardot	17.8%	24.9%	13.9%	40.3%	3.2%	901
Girón	17.6%	28.2%	12.9%	39.9%	1.5%	1515
Guainía	14.3%	24.6%	20.5%	38.7%	2.0%	512
Guaviare	18.0%	29.3%	15.5%	35.2%	1.8%	920
Huila	14.5%	27.8%	14.8%	42.0%	0.9%	8186
Ibagué	15.1%	26.1%	13.3%	44.7%	0.8%	5529
Ipiales	13.9%	27.9%	14.4%	43.3%	0.5%	1480
Itagüí	16.7%	27.4%	16.2%	38.5%	1.1%	2031
Jamundí	17.1%	24.8%	15.3%	41.6%	1.2%	1116
La Guajira	15.3%	26.2%	18.5%	38.2%	1.8%	3926
Lorica	17.7%	23.3%	19.4%	38.3%	1.4%	1541
Magangué	18.9%	26.0%	17.8%	35.4%	2.0%	1660
Magdalena	16.9%	24.9%	18.4%	37.4%	2.4%	9131
Maicao	19.2%	22.5%	19.3%	36.9%	2.0%	2161
Malambo	15.1%	25.9%	17.1%	39.9%	2.0%	1286
Manizales	15.3%	25.8%	13.0%	45.1%	0.9%	3134
Medellín	17.4%	25.8%	15.9%	39.6%	1.4%	20626
Meta	16.0%	27.0%	16.4%	38.9%	1.6%	6019

Continúa en la siguiente página

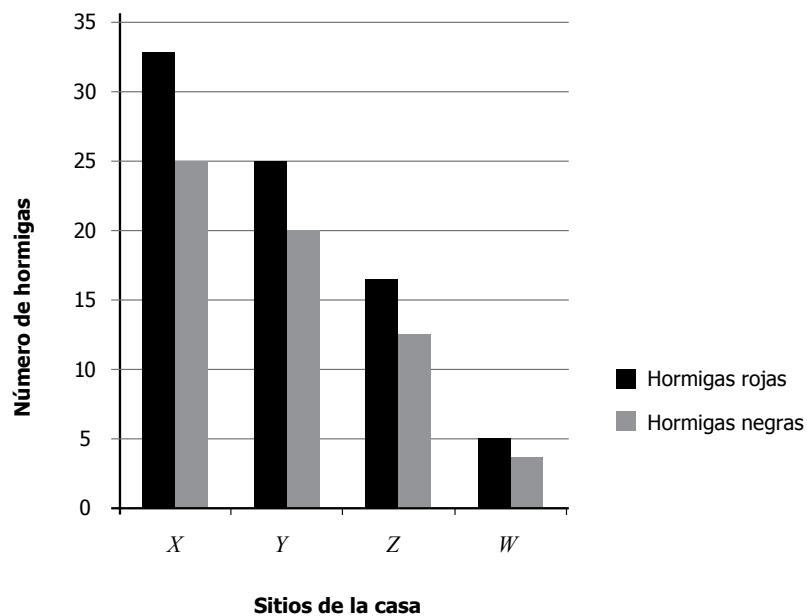


ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Montería	17.2%	26.4%	18.3%	37.1%	1.1%	5509
Mosquera	14.4%	23.0%	11.3%	50.2%	1.1%	1281
Nariño	12.2%	27.4%	13.5%	45.1%	1.6%	9244
Neiva	16.6%	28.6%	14.4%	39.5%	0.9%	3674
Norte de Santander	14.6%	28.3%	14.6%	41.3%	1.2%	8006
Palmira	13.3%	26.3%	14.3%	45.6%	0.4%	2770
Pasto	12.7%	28.8%	11.8%	45.6%	1.0%	4040
Pereira	14.9%	26.7%	14.5%	43.0%	0.9%	4349
Piedecuesta	14.3%	27.8%	12.4%	43.8%	1.6%	1487
Pitalito	16.4%	28.5%	15.2%	39.1%	0.8%	1588
Popayán	12.3%	28.2%	13.5%	45.0%	1.0%	3099
Putumayo	15.2%	26.8%	17.0%	39.2%	1.9%	4157
Quibdó	17.1%	23.9%	20.3%	36.6%	2.1%	1328
Quindío	15.8%	26.7%	14.4%	41.4%	1.6%	2454
Riohacha	18.1%	23.8%	18.8%	37.3%	1.9%	2580
Rionegro	14.5%	26.1%	14.8%	43.8%	0.9%	1193
Risaralda	14.1%	26.0%	14.7%	43.4%	1.9%	2797
Sabaneta	16.5%	26.9%	12.8%	43.0%	0.8%	516
Sahagún	18.4%	25.8%	15.2%	38.9%	1.6%	1215
San Andrés	17.7%	26.8%	17.2%	37.0%	1.3%	548
Santa Marta	17.0%	25.1%	16.2%	40.4%	1.4%	5835
Santander	13.6%	27.0%	14.3%	44.3%	0.8%	8650
Sincelejo	17.7%	24.5%	17.1%	39.7%	1.0%	3223
Soacha	15.9%	25.2%	14.5%	43.5%	0.9%	5626
Sogamoso	11.4%	28.3%	14.2%	45.3%	0.8%	1510
Soledad	16.4%	24.5%	16.2%	41.6%	1.3%	5490
Sucre	17.2%	26.4%	18.3%	37.0%	1.1%	7745
Tolima	15.1%	26.3%	16.3%	40.9%	1.5%	9703
Tuluá	15.5%	25.9%	13.4%	44.3%	0.9%	2140
Tumaco	17.5%	25.3%	20.0%	33.2%	4.1%	2367
Tunja	13.2%	27.4%	15.2%	43.5%	0.7%	1869
Turbo	18.7%	26.9%	18.3%	33.8%	2.3%	2128
Uribia	17.3%	22.6%	23.1%	33.0%	4.0%	1099
Valle del Cauca	14.6%	25.6%	14.7%	44.1%	0.9%	8458
Valledupar	15.8%	24.2%	13.8%	45.1%	1.1%	5280
Vichada	17.4%	27.5%	18.4%	33.9%	2.9%	771
Villavicencio	16.3%	26.1%	14.6%	41.5%	1.5%	5771
Yopal	17.4%	28.2%	14.4%	38.7%	1.4%	1996
Yumbo	15.9%	27.4%	13.4%	42.4%	0.9%	1256
Zipaquirá	14.4%	27.8%	11.6%	45.2%	0.9%	1282
Colombia	15.8%	26.2%	15.3%	41.4%	1.4%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

**• Pregunta 38.**

* Felipe está estudiando las hormigas que llegan a su casa. Para ello registra el lugar de la casa en el que se encuentran y el color de cada hormiga. Felipe observa que las hormigas prefieren lugares donde haya restos de comida humana y construye la siguiente gráfica.



De acuerdo con la observación de Felipe, ¿cuáles son los nombres más apropiados para las letras X , Y , Z y W ?

A.

X	Cocina
Y	Comedor
Z	Alcoba
W	Techo

B.

X	Techo
Y	Alcoba
Z	Cocina
W	Comedor

C.

X	Techo
Y	Comedor
Z	Alcoba
W	Cocina

D.

X	Comedor
Y	Techo
Z	Alcoba
W	Cocina

* -Pregunta modificada respecto a su versión original.



- **Estructura**

Competencia	Indagar
Componente	Entorno vivo
Afirmación	Observar y relacionar patrones en los datos para evaluar las predicciones.
Nivel de desempeño	Avanzado
Respuesta Correcta	A

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	35.6%	28.0%	14.0%	19.7%	2.7%	974
Antioquia	43.9%	23.4%	13.8%	17.7%	1.3%	29322
Apartadó	44.5%	24.9%	13.6%	14.8%	2.2%	1767
Arauca	42.7%	24.0%	13.6%	18.9%	0.8%	2669
Armenia	49.1%	22.4%	11.2%	15.9%	1.3%	2580
Atlántico	43.3%	23.1%	13.9%	17.1%	2.6%	5983
Barrancabermeja	48.7%	20.8%	12.3%	17.2%	1.1%	2505
Barranquilla	48.5%	20.5%	12.7%	17.2%	1.0%	12395
Bello	50.0%	19.7%	11.9%	17.5%	0.8%	3831
Bogotá, D.C.	49.6%	20.1%	12.3%	17.1%	1.0%	66800
Bolívar	39.6%	24.7%	15.3%	18.3%	2.1%	11151
Boyacá	41.8%	24.2%	15.7%	17.7%	0.6%	9253
Bucaramanga	50.4%	19.1%	11.5%	18.1%	0.9%	5292
Buenaventura	45.5%	21.1%	13.1%	18.4%	1.9%	4157
Buga	47.7%	19.4%	13.4%	18.4%	1.1%	1232
Caldas	42.9%	24.1%	14.4%	17.9%	0.7%	5745
Cali	50.6%	19.8%	11.6%	16.9%	1.1%	19608
Caquetá	41.2%	25.8%	16.1%	15.9%	1.0%	3243
Cartagena	49.0%	20.5%	12.4%	16.7%	1.4%	11444
Cartago	46.2%	22.4%	12.6%	17.6%	1.2%	1275
Casanare	41.4%	23.2%	15.3%	19.1%	1.0%	3063
Cauca	44.3%	22.8%	13.5%	17.7%	1.7%	12549
Cesar	41.0%	25.0%	15.3%	17.8%	0.9%	8455
Chocó	43.4%	23.9%	15.1%	15.6%	2.0%	3818
Chía	53.1%	17.1%	11.7%	17.5%	0.6%	1455
Ciénaga	45.2%	22.2%	13.4%	17.4%	1.8%	1510

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GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Cundinamarca	46.1%	21.4%	13.6%	18.2%	0.7%	16385
Córdoba	40.2%	25.3%	15.3%	17.9%	1.3%	13345
Cúcuta	46.8%	23.1%	12.6%	16.7%	0.8%	7402
Dosquebradas	46.8%	21.3%	13.8%	17.2%	0.9%	1853
Duitama	48.2%	19.2%	13.9%	18.5%	0.2%	1405
Envigado	57.9%	15.7%	9.2%	16.7%	0.5%	1411
Facatativá	48.7%	24.1%	10.6%	16.4%	0.1%	1406
Florencia	44.5%	23.8%	14.1%	16.7%	0.9%	2079
Floridablanca	49.6%	19.6%	11.7%	18.2%	0.8%	2598
Fusagasugá	46.5%	22.7%	12.8%	17.2%	0.8%	1235
Girardot	47.8%	20.3%	14.1%	15.3%	2.4%	901
Girón	46.9%	21.1%	14.1%	17.2%	0.7%	1515
Guainía	38.3%	24.0%	14.3%	21.7%	1.8%	512
Guaviare	41.2%	24.9%	16.6%	16.2%	1.1%	920
Huila	42.3%	23.6%	15.8%	17.6%	0.6%	8186
Ibagué	50.2%	20.2%	12.2%	16.8%	0.7%	5529
Ipiales	44.5%	23.6%	14.1%	17.4%	0.3%	1480
Itagüí	52.5%	21.2%	10.9%	14.5%	0.9%	2031
Jamundí	44.6%	25.8%	12.3%	16.2%	1.1%	1116
La Guajira	44.7%	23.7%	12.9%	17.2%	1.5%	3926
Lorica	44.4%	23.7%	13.5%	17.4%	1.0%	1541
Magangué	38.6%	25.7%	15.4%	19.1%	1.2%	1660
Magdalena	42.6%	22.8%	14.5%	18.1%	1.9%	9131
Maicao	41.0%	24.1%	14.2%	19.0%	1.8%	2161
Malambo	50.0%	18.7%	14.5%	15.1%	1.6%	1286
Manizales	49.1%	20.6%	13.1%	16.6%	0.5%	3134
Medellín	48.8%	21.4%	12.7%	16.1%	1.0%	20626
Meta	42.0%	23.2%	15.1%	18.4%	1.3%	6019
Montería	43.3%	23.3%	14.1%	18.4%	0.9%	5509
Mosquera	49.6%	20.6%	11.3%	17.3%	1.1%	1281
Nariño	42.4%	23.2%	13.3%	19.6%	1.4%	9244
Neiva	45.2%	22.7%	13.1%	18.1%	0.9%	3674
Norte de Santander	44.4%	23.3%	13.5%	18.0%	0.8%	8006
Palmira	50.7%	19.9%	12.5%	16.5%	0.4%	2770
Pasto	46.7%	22.0%	13.4%	17.2%	0.7%	4040
Pereira	48.9%	21.5%	12.3%	16.7%	0.7%	4349
Piedecuesta	49.3%	20.6%	10.4%	18.8%	0.9%	1487
Pitalito	42.5%	24.9%	14.2%	17.8%	0.6%	1588
Popayán	48.4%	20.5%	13.3%	17.3%	0.6%	3099
Putumayo	39.1%	24.8%	15.7%	18.9%	1.6%	4157

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Quibdó	42.2%	21.8%	16.0%	17.7%	2.3%	1328
Quindío	45.5%	22.9%	12.9%	17.2%	1.5%	2454
Riohacha	43.6%	23.6%	14.1%	16.9%	1.7%	2580
Rionegro	45.9%	22.0%	14.2%	17.3%	0.7%	1193
Risaralda	43.4%	24.6%	14.7%	15.7%	1.5%	2797
Sabaneta	52.1%	18.0%	13.8%	15.9%	0.2%	516
Sahagún	41.6%	25.5%	14.7%	16.7%	1.4%	1215
San Andrés	49.8%	20.8%	15.1%	13.7%	0.5%	548
Santa Marta	46.2%	21.9%	12.0%	18.9%	1.0%	5835
Santander	44.0%	22.6%	14.9%	18.0%	0.5%	8650
Sincelejo	46.5%	21.7%	13.5%	17.4%	1.0%	3223
Soacha	47.2%	22.1%	12.6%	17.4%	0.7%	5626
Sogamoso	52.1%	20.7%	12.1%	14.8%	0.3%	1510
Soledad	49.2%	20.9%	11.7%	17.4%	0.8%	5490
Sucre	42.1%	23.6%	15.1%	18.2%	1.0%	7745
Tolima	41.6%	23.4%	14.9%	18.8%	1.2%	9703
Tuluá	48.7%	20.4%	14.1%	16.2%	0.6%	2140
Tumaco	36.7%	23.8%	15.8%	20.7%	3.0%	2367
Tunja	50.6%	20.7%	12.0%	16.2%	0.5%	1869
Turbo	40.0%	25.0%	15.3%	17.7%	1.9%	2128
Uribia	37.3%	25.8%	12.7%	21.2%	3.0%	1099
Valle del Cauca	45.4%	23.1%	13.5%	17.3%	0.7%	8458
Valledupar	46.6%	21.5%	13.0%	18.1%	0.7%	5280
Vichada	40.2%	22.8%	14.1%	20.5%	2.3%	771
Villavicencio	48.2%	20.6%	12.6%	17.7%	1.0%	5771
Yopal	46.7%	22.6%	12.9%	17.0%	0.7%	1996
Yumbo	48.2%	21.5%	12.3%	17.6%	0.4%	1256
Zipaquirá	50.7%	20.2%	12.5%	15.8%	0.8%	1282
Colombia	45.9%	22.1%	13.4%	17.5%	1.1%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• Pregunta 39.

Los médicos que cuidan de la buena alimentación de las personas siempre recomiendan no exceder las porciones de pastas, arroz, panes, dulces y grasas. ¿Por qué los médicos hacen esta recomendación?

- A. Porque estos alimentos causan el envejecimiento prematuro.
- B. Porque consumir estos alimentos en grandes cantidades causa obesidad y problemas de salud.
- C. Porque luego de consumir estos alimentos no queda espacio para consumir verduras y frutas.
- D. Porque estos alimentos tienen un sabor desagradable.

• Estructura

Competencia	Explicación de fenómenos
Componente	Cts
Afirmación	Valorar y comprender la necesidad de seguir hábitos para mantener la salud y el entorno.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	B

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multmarca	Nº estudiantes
Amazonas	11.7%	49.0%	24.2%	12.3%	2.8%	974
Antioquia	10.6%	59.3%	20.3%	8.3%	1.5%	29322
Apartadó	13.1%	51.2%	23.4%	10.2%	2.2%	1767
Arauca	11.7%	57.4%	21.2%	8.6%	1.1%	2669
Armenia	9.5%	61.9%	19.7%	7.5%	1.4%	2580
Atlántico	13.3%	51.1%	22.7%	10.0%	2.9%	5983
Barrancabermeja	10.0%	62.5%	19.1%	6.9%	1.5%	2505
Baranquilla	11.4%	60.8%	18.8%	7.7%	1.3%	12395
Bello	8.8%	67.8%	16.5%	5.8%	1.1%	3831
Bogotá, D.C.	7.9%	70.1%	15.3%	5.7%	1.1%	66800
Bolívar	14.3%	45.5%	25.5%	12.0%	2.7%	11151
Boyacá	9.0%	61.4%	21.4%	7.5%	0.7%	9253
Bucaramanga	8.7%	68.7%	15.6%	6.2%	0.9%	5292
Buenaventura	12.7%	53.6%	21.4%	9.6%	2.6%	4157

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Buga	9.1%	64.7%	17.1%	8.0%	1.1%	1232
Caldas	10.1%	61.6%	19.5%	8.2%	0.7%	5745
Cali	9.0%	67.2%	15.9%	6.6%	1.2%	19608
Caquetá	11.4%	54.9%	22.6%	9.6%	1.5%	3243
Cartagena	12.0%	58.2%	19.4%	8.4%	1.9%	11444
Cartago	10.0%	61.9%	18.2%	8.9%	0.9%	1275
Casanare	10.0%	58.9%	21.3%	8.3%	1.5%	3063
Cauca	10.2%	56.5%	21.5%	9.9%	1.8%	12549
Cesar	11.4%	54.8%	22.4%	10.2%	1.2%	8455
Chocó	12.4%	46.1%	25.5%	13.7%	2.4%	3818
Chía	7.8%	73.5%	12.9%	5.3%	0.5%	1455
Ciénaga	13.8%	52.3%	21.9%	9.5%	2.5%	1510
Cundinamarca	8.0%	66.9%	17.8%	6.5%	0.9%	16385
Córdoba	12.7%	48.6%	25.2%	11.6%	1.8%	13345
Cúcuta	10.9%	60.6%	19.1%	8.1%	1.3%	7402
Dosquebradas	8.3%	67.9%	16.5%	6.0%	1.3%	1853
Duitama	6.9%	71.8%	15.4%	5.4%	0.5%	1405
Envigado	6.7%	72.6%	14.7%	5.5%	0.4%	1411
Facatativá	7.1%	71.3%	14.9%	5.7%	0.9%	1406
Florencia	10.5%	57.2%	20.7%	10.0%	1.5%	2079
Floridablanca	7.9%	70.7%	15.1%	5.4%	0.9%	2598
Fusagasugá	7.9%	68.3%	16.9%	5.8%	1.1%	1235
Girardot	11.9%	59.7%	18.2%	8.0%	2.2%	901
Girón	9.2%	61.8%	21.5%	6.7%	0.8%	1515
Guainía	10.7%	52.0%	19.7%	14.6%	2.9%	512
Guaviare	9.8%	54.8%	22.8%	10.1%	2.5%	920
Huila	10.2%	59.6%	20.9%	8.4%	0.9%	8186
Ibagué	8.6%	66.1%	17.3%	7.2%	0.8%	5529
Ipiales	7.6%	67.0%	17.3%	7.6%	0.5%	1480
Itagüí	11.0%	61.4%	19.0%	7.6%	1.0%	2031
Jamundí	11.6%	58.0%	21.8%	7.6%	1.1%	1116
La Guajira	12.0%	51.5%	22.6%	12.2%	1.7%	3926
Lorica	13.7%	51.6%	23.0%	10.2%	1.5%	1541
Magangué	15.5%	47.0%	23.9%	11.7%	1.7%	1660
Magdalena	13.4%	49.4%	24.1%	10.6%	2.4%	9131
Maicao	13.0%	49.9%	23.0%	12.3%	1.9%	2161
Malambo	11.4%	58.3%	19.3%	8.5%	2.6%	1286
Manizales	8.9%	68.2%	15.9%	6.1%	0.9%	3134
Medellín	10.8%	62.2%	18.1%	7.5%	1.4%	20626
Meta	11.3%	57.5%	20.7%	8.9%	1.6%	6019
Montería	12.9%	53.9%	22.4%	9.5%	1.3%	5509

Continúa en la siguiente página

GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Mosquera	6.2%	73.1%	14.3%	5.3%	1.0%	1281
Nariño	7.9%	64.4%	18.8%	7.3%	1.6%	9244
Neiva	9.9%	62.0%	19.1%	7.9%	1.1%	3674
Norte de Santander	9.7%	61.9%	19.6%	7.8%	1.0%	8006
Palmira	8.8%	67.9%	17.0%	5.7%	0.6%	2770
Pasto	7.8%	70.5%	15.3%	5.5%	1.0%	4040
Pereira	9.5%	66.9%	16.7%	6.1%	0.9%	4349
Piedecuesta	7.6%	68.9%	16.4%	5.8%	1.3%	1487
Pitalito	10.8%	58.7%	22.0%	7.6%	0.9%	1588
Popayán	8.2%	68.4%	17.1%	5.6%	0.6%	3099
Putumayo	11.4%	55.8%	22.5%	8.4%	1.9%	4157
Quibdó	14.6%	48.0%	23.8%	11.2%	2.3%	1328
Quindío	10.2%	60.8%	19.8%	7.6%	1.7%	2454
Riohacha	12.9%	52.3%	22.4%	10.2%	2.2%	2580
Rionegro	8.3%	67.9%	15.3%	7.7%	0.8%	1193
Risaralda	8.6%	62.1%	18.7%	8.9%	1.7%	2797
Sabaneta	8.1%	72.9%	13.4%	5.0%	0.6%	516
Sahagún	9.5%	55.7%	24.4%	8.8%	1.6%	1215
San Andrés	10.8%	60.4%	17.7%	9.5%	1.6%	548
Santa Marta	12.4%	58.0%	19.9%	8.3%	1.4%	5835
Santander	8.7%	63.9%	19.4%	7.3%	0.7%	8650
Sincelejo	11.9%	57.9%	21.2%	7.8%	1.2%	3223
Soacha	10.0%	65.8%	16.9%	6.3%	1.0%	5626
Sogamoso	8.1%	69.9%	16.2%	5.4%	0.4%	1510
Soledad	12.2%	59.5%	18.9%	8.0%	1.4%	5490
Sucre	13.0%	50.3%	24.4%	10.8%	1.4%	7745
Tolima	10.0%	57.9%	21.4%	9.3%	1.4%	9703
Tuluá	9.2%	67.9%	15.8%	6.4%	0.8%	2140
Tumaco	14.8%	42.8%	24.7%	13.9%	3.8%	2367
Tunja	7.4%	71.5%	15.2%	5.2%	0.6%	1869
Turbo	16.3%	44.9%	25.8%	10.9%	2.0%	2128
Uribia	11.9%	35.4%	28.9%	20.4%	3.4%	1099
Valle del Cauca	9.5%	62.1%	19.6%	7.9%	0.9%	8458
Valledupar	11.2%	60.2%	19.0%	8.7%	1.0%	5280
Vichada	9.2%	51.5%	21.5%	14.8%	3.0%	771
Villavicencio	9.7%	64.1%	17.8%	7.2%	1.2%	5771
Yopal	10.1%	60.6%	20.4%	7.9%	1.0%	1996
Yumbo	9.6%	64.6%	17.8%	6.8%	1.2%	1256
Zipaquirá	8.3%	70.5%	14.7%	5.9%	0.5%	1282
Colombia	10.2%	61.1%	19.3%	8.0%	1.4%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• **Pregunta 40.**

Un estudiante encontró esta tabla, en la cual se mencionan diferentes tipos de energía.

Tipo de energía	
Térmica	Relacionado con la capacidad de producir calor.
Lumínica	Relacionado con la capacidad de generar luz.
Mecánica	Relacionado con el movimiento de los cuerpos.

El estudiante tiene una bicicleta, una plancha y un bombillo. ¿Cuál es el orden de los aparatos correspondiente a energía térmica, energía lumínica y energía mecánica, respectivamente?

- A. Energía térmica= bombillo, Energía lumínica= plancha, Energía mecánica= bicicleta.
- B. Energía térmica= bicicleta, Energía lumínica= bombillo, Energía mecánica= plancha.
- C. Energía térmica= bombillo, Energía lumínica= bicicleta, Energía mecánica= plancha.
- D. Energía térmica= plancha, Energía lumínica= bombillo, Energía mecánica= bicicleta.

• **Estructura**

Competencia	Explicación de fenómenos
Componente	Cts
Afirmación	Comprender la diferencia entre varios/diversos tipos de máquinas.
Nivel de desempeño	Avanzado
Respuesta Correcta	D



GRADO 5° - CIENCIAS NATURALES

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	19.5%	21.9%	23.5%	32.1%	3.0%	974
Antioquia	23.3%	19.1%	19.7%	35.9%	1.9%	29322
Apartadó	24.6%	21.3%	18.6%	33.2%	2.4%	1767
Arauca	21.9%	19.5%	19.3%	37.8%	1.5%	2669
Armenia	20.9%	20.5%	17.5%	39.4%	1.7%	2580
Atlántico	21.9%	21.4%	20.9%	32.1%	3.6%	5983
Barrancabermeja	23.1%	19.8%	18.3%	37.2%	1.6%	2505
Barranquilla	21.5%	20.5%	18.8%	37.5%	1.7%	12395
Bello	22.3%	19.3%	16.0%	40.7%	1.7%	3831
Bogotá, D.C.	19.5%	17.1%	16.1%	45.8%	1.5%	66800
Bolívar	23.5%	21.8%	23.6%	28.1%	3.1%	11151
Boyacá	20.5%	18.5%	19.0%	40.9%	1.1%	9253
Bucaramanga	18.8%	16.9%	16.3%	46.6%	1.3%	5292
Buenaventura	22.3%	20.2%	19.6%	34.7%	3.2%	4157
Buga	20.2%	20.0%	19.8%	38.1%	1.8%	1232
Caldas	22.1%	18.7%	20.0%	38.0%	1.1%	5745
Cali	21.0%	18.4%	16.6%	42.4%	1.6%	19608
Caquetá	21.5%	21.7%	22.0%	33.2%	1.6%	3243
Cartagena	22.2%	19.8%	18.3%	37.2%	2.4%	11444
Cartago	20.2%	20.0%	16.7%	41.5%	1.6%	1275
Casanare	21.7%	20.8%	18.4%	37.4%	1.7%	3063
Cauca	21.3%	19.9%	19.4%	37.1%	2.3%	12549
Cesar	21.7%	20.5%	21.5%	34.6%	1.8%	8455
Chocó	23.0%	22.0%	20.6%	31.4%	2.9%	3818
Chía	18.4%	16.0%	14.1%	50.7%	0.9%	1455
Ciénaga	21.1%	21.7%	21.5%	32.6%	3.2%	1510
Cundinamarca	19.5%	17.2%	17.8%	44.3%	1.2%	16385
Córdoba	23.3%	21.8%	22.3%	30.4%	2.1%	13345
Cúcuta	21.9%	19.6%	18.0%	39.0%	1.4%	7402
Dosquebradas	20.9%	17.8%	19.5%	40.1%	1.7%	1853
Duitama	16.2%	15.4%	14.0%	54.0%	0.5%	1405
Envigado	16.2%	16.8%	15.0%	51.4%	0.7%	1411
Facatativá	19.3%	18.8%	15.8%	45.7%	0.4%	1406
Florencia	22.6%	21.6%	20.2%	34.2%	1.4%	2079
Floridablanca	20.8%	16.6%	15.6%	46.0%	1.0%	2598
Fusagasugá	20.6%	18.2%	15.1%	44.4%	1.6%	1235
Girardot	21.6%	18.9%	18.2%	37.4%	3.9%	901

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ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	21.5%	19.3%	18.1%	39.6%	1.6%	1515
Guainía	20.7%	24.8%	18.8%	33.0%	2.7%	512
Guaviare	21.0%	19.3%	20.0%	37.3%	2.4%	920
Huila	21.1%	19.1%	19.1%	39.6%	1.1%	8186
Ibagué	21.6%	17.4%	16.4%	43.7%	0.9%	5529
Ipiales	20.3%	19.4%	16.6%	42.6%	1.1%	1480
Itagüí	22.0%	19.4%	19.1%	38.0%	1.5%	2031
Jamundí	23.7%	21.9%	20.2%	32.3%	2.0%	1116
La Guajira	21.3%	22.0%	21.8%	32.5%	2.4%	3926
Lorica	22.4%	21.8%	21.0%	33.1%	1.8%	1541
Magangué	23.8%	21.6%	23.5%	29.4%	1.7%	1660
Magdalena	22.4%	21.5%	20.4%	32.5%	3.1%	9131
Maicao	23.9%	22.3%	19.3%	32.2%	2.3%	2161
Malambo	25.2%	17.5%	18.0%	36.8%	2.6%	1286
Manizales	23.1%	16.7%	17.7%	41.4%	1.1%	3134
Medellín	22.2%	20.2%	19.2%	36.5%	1.9%	20626
Meta	21.0%	20.4%	21.1%	35.2%	2.2%	6019
Montería	22.3%	21.0%	21.5%	33.3%	1.9%	5509
Mosquera	18.8%	15.8%	15.5%	48.3%	1.6%	1281
Nariño	20.6%	16.9%	17.7%	42.8%	1.9%	9244
Neiva	22.3%	19.0%	18.2%	39.2%	1.2%	3674
Norte de Santander	20.3%	17.8%	18.6%	42.1%	1.2%	8006
Palmira	19.4%	18.2%	17.1%	44.8%	0.6%	2770
Pasto	19.6%	17.7%	16.6%	44.9%	1.2%	4040
Pereira	23.6%	18.3%	17.3%	39.5%	1.3%	4349
Piedecuesta	19.2%	18.4%	16.3%	44.8%	1.4%	1487
Pitalito	23.0%	19.5%	19.1%	37.7%	0.8%	1588
Popayán	20.7%	17.5%	17.0%	43.6%	1.2%	3099
Putumayo	21.9%	20.7%	19.5%	35.7%	2.2%	4157
Quibdó	24.1%	21.2%	22.4%	29.8%	2.5%	1328
Quindío	21.3%	18.9%	20.4%	37.2%	2.2%	2454
Riohacha	21.7%	23.3%	21.2%	31.5%	2.3%	2580
Rionegro	21.4%	17.4%	17.3%	42.9%	1.0%	1193
Risaralda	25.1%	16.8%	19.8%	36.0%	2.2%	2797
Sabaneta	21.5%	17.8%	15.9%	44.4%	0.4%	516
Sahagún	20.2%	19.7%	20.8%	37.2%	2.1%	1215
San Andrés	20.6%	19.5%	22.1%	35.8%	2.0%	548
Santa Marta	21.9%	19.9%	19.7%	36.5%	2.0%	5835
Santander	19.5%	17.8%	17.3%	44.4%	0.9%	8650
Sincelejo	22.8%	20.7%	20.4%	34.6%	1.5%	3223

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	21.3%	19.4%	17.7%	40.7%	1.1%	5626
Sogamoso	20.7%	18.2%	17.3%	43.2%	0.6%	1510
Soledad	22.4%	19.2%	18.3%	38.3%	1.8%	5490
Sucre	22.1%	21.9%	22.1%	32.2%	1.8%	7745
Tolima	22.1%	19.2%	20.2%	36.7%	1.8%	9703
Tuluá	21.2%	17.1%	16.9%	43.8%	1.0%	2140
Tumaco	24.1%	23.5%	21.6%	27.0%	3.8%	2367
Tunja	17.7%	15.6%	15.1%	50.5%	1.1%	1869
Turbo	22.7%	23.7%	24.2%	26.5%	3.0%	2128
Uribia	19.4%	23.4%	24.0%	28.8%	4.4%	1099
Valle del Cauca	22.1%	19.1%	18.8%	38.6%	1.3%	8458
Valledupar	21.9%	19.0%	18.6%	39.2%	1.3%	5280
Vichada	22.3%	22.4%	21.8%	30.9%	2.6%	771
Villavicencio	21.0%	18.0%	17.9%	41.4%	1.7%	5771
Yopal	22.3%	19.3%	20.3%	36.8%	1.2%	1996
Yumbo	20.1%	18.3%	21.0%	39.3%	1.3%	1256
Zipaquirá	18.7%	14.9%	16.8%	49.0%	0.6%	1282
Colombia	21.4%	19.2%	18.7%	39.0%	1.7%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• Pregunta 41.

En un estudio sobre seguridad en las vías nacionales, se descubrió que la mayoría de los accidentes de tránsito ocurren cuando los conductores se encuentran bajo los efectos del alcohol. ¿Por qué se aumenta el riesgo de accidentes en esta situación?

- A. Porque el consumo de alcohol reduce la capacidad de coordinación y reacción.
- B. Porque el consumo de alcohol produce ceguera.
- C. Porque el consumo de alcohol daña el hígado de las personas.
- D. Porque el alcohol favorece el comportamiento cooperativo de las personas.

• Estructura

Competencia	Explicación de fenómenos
Componente	Cts
Afirmación	Valorar y comprender la necesidad de seguir hábitos para mantener la salud y el entorno.
Nivel de desempeño	Avanzado
Respuesta Correcta	A

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multmarca	Nº estudiantes
Amazonas	30.0%	13.6%	33.0%	20.2%	3.3%	974
Antioquia	38.9%	16.4%	26.3%	16.6%	1.9%	29322
Apartadó	32.5%	17.9%	28.0%	18.9%	2.6%	1767
Arauca	37.6%	17.8%	26.3%	17.0%	1.3%	2669
Armenia	45.2%	14.9%	22.5%	15.6%	1.8%	2580
Atlántico	33.2%	18.5%	26.4%	18.6%	3.3%	5983
Barrancabermeja	42.3%	14.1%	24.2%	18.0%	1.4%	2505
Barranquilla	41.4%	16.5%	23.1%	17.1%	2.0%	12395
Bello	47.0%	16.4%	20.2%	14.8%	1.5%	3831
Bogotá, D.C.	53.1%	14.0%	18.8%	12.6%	1.5%	66800
Bolívar	28.0%	19.2%	28.2%	21.3%	3.2%	11151
Boyacá	39.5%	17.1%	28.9%	13.5%	1.0%	9253
Bucaramanga	52.3%	14.2%	19.6%	12.6%	1.2%	5292
Buenaventura	37.6%	16.6%	24.4%	17.9%	3.5%	4157

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GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Buga	45.1%	15.8%	22.7%	15.0%	1.3%	1232
Caldas	40.5%	17.2%	25.0%	15.9%	1.4%	5745
Cali	47.5%	15.1%	21.5%	14.4%	1.6%	19608
Caquetá	34.7%	16.4%	30.0%	17.6%	1.3%	3243
Cartagena	41.9%	16.6%	21.7%	17.4%	2.4%	11444
Cartago	43.9%	16.5%	22.1%	16.1%	1.3%	1275
Casanare	37.8%	17.6%	27.8%	15.4%	1.3%	3063
Cauca	37.1%	14.7%	30.2%	15.9%	2.2%	12549
Cesar	34.6%	16.7%	28.9%	18.3%	1.5%	8455
Chocó	30.7%	17.2%	29.6%	19.7%	2.8%	3818
Chía	56.5%	13.7%	15.7%	13.3%	0.9%	1455
Ciénaga	35.1%	15.7%	28.1%	18.5%	2.6%	1510
Cundinamarca	47.0%	16.3%	22.4%	13.1%	1.2%	16385
Córdoba	30.5%	19.0%	28.2%	20.1%	2.3%	13345
Cúcuta	42.8%	16.1%	24.0%	15.7%	1.5%	7402
Dosquebradas	47.3%	14.3%	22.0%	14.7%	1.7%	1853
Duitama	52.3%	15.0%	21.1%	10.5%	1.1%	1405
Envigado	61.5%	12.4%	14.2%	11.2%	0.7%	1411
Facatativá	53.3%	12.2%	21.9%	12.0%	0.5%	1406
Florencia	36.8%	17.0%	26.7%	17.9%	1.5%	2079
Floridablanca	52.4%	14.7%	19.0%	12.7%	1.2%	2598
Fusagasugá	50.2%	15.1%	19.7%	13.9%	1.1%	1235
Girardot	45.1%	17.5%	19.8%	14.4%	3.2%	901
Girón	44.0%	16.4%	21.6%	16.6%	1.3%	1515
Guainía	34.6%	13.1%	29.7%	19.9%	2.7%	512
Guaviare	36.1%	16.1%	28.3%	17.3%	2.3%	920
Huila	37.6%	16.0%	29.2%	16.1%	1.1%	8186
Ibagué	48.3%	14.6%	21.3%	14.8%	1.0%	5529
Ipiales	42.6%	17.5%	26.6%	12.6%	0.7%	1480
Itagüí	47.0%	17.4%	20.2%	13.6%	1.8%	2031
Jamundí	37.1%	17.7%	25.1%	17.8%	2.2%	1116
La Guajira	32.0%	17.4%	29.3%	19.1%	2.1%	3926
Lorica	34.1%	16.9%	28.4%	19.1%	1.6%	1541
Magangué	29.4%	20.8%	26.7%	20.8%	2.2%	1660
Magdalena	32.8%	16.9%	28.7%	18.7%	3.0%	9131
Maicao	31.4%	17.0%	30.0%	19.2%	2.4%	2161
Malambo	40.3%	15.9%	24.2%	16.8%	2.9%	1286
Manizales	51.0%	14.3%	20.3%	13.4%	1.0%	3134
Medellín	44.3%	17.0%	21.3%	15.5%	1.8%	20626
Meta	36.8%	18.7%	25.9%	16.6%	2.0%	6019
Montería	35.9%	18.0%	24.7%	19.7%	1.8%	5509

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ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Mosquera	55.7%	11.0%	18.7%	13.3%	1.2%	1281
Nariño	42.6%	15.2%	28.4%	12.0%	1.8%	9244
Neiva	42.5%	16.2%	23.4%	16.6%	1.2%	3674
Norte de Santander	41.8%	15.3%	27.1%	14.5%	1.3%	8006
Palmira	50.4%	14.1%	21.2%	13.5%	0.8%	2770
Pasto	49.7%	14.9%	23.8%	10.3%	1.3%	4040
Pereira	47.2%	15.0%	22.0%	14.5%	1.3%	4349
Piedecuesta	50.2%	14.3%	19.0%	15.3%	1.3%	1487
Pitalito	38.7%	17.7%	25.8%	16.8%	1.0%	1588
Popayán	48.7%	14.8%	21.8%	13.5%	1.2%	3099
Putumayo	34.5%	17.1%	31.5%	14.5%	2.4%	4157
Quibdó	35.3%	15.7%	24.9%	20.6%	3.5%	1328
Quindío	40.8%	17.5%	23.9%	15.7%	2.1%	2454
Riohacha	35.3%	18.6%	27.0%	16.0%	3.1%	2580
Rionegro	52.5%	13.9%	19.9%	12.7%	1.0%	1193
Risaralda	40.5%	15.6%	26.2%	15.6%	2.1%	2797
Sabaneta	55.8%	14.0%	15.9%	14.0%	0.4%	516
Sahagún	30.9%	18.6%	27.6%	21.0%	2.0%	1215
San Andrés	39.6%	19.9%	22.1%	16.1%	2.4%	548
Santa Marta	40.6%	16.9%	23.7%	16.8%	1.9%	5835
Santander	42.4%	16.6%	26.1%	14.0%	0.9%	8650
Sincelejo	38.7%	16.2%	25.9%	17.7%	1.5%	3223
Soacha	47.5%	14.5%	21.8%	14.6%	1.5%	5626
Sogamoso	52.8%	14.4%	19.5%	12.5%	0.7%	1510
Soledad	42.1%	15.8%	23.7%	16.6%	1.9%	5490
Sucre	29.8%	19.3%	28.5%	20.9%	1.6%	7745
Tolima	38.6%	16.7%	26.6%	16.5%	1.6%	9703
Tuluá	47.5%	14.2%	21.7%	15.7%	0.9%	2140
Tumaco	26.3%	19.6%	28.5%	21.8%	3.8%	2367
Tunja	51.8%	15.6%	20.0%	11.3%	1.3%	1869
Turbo	27.9%	19.4%	29.8%	20.1%	2.9%	2128
Uribia	22.7%	17.7%	33.5%	22.7%	3.5%	1099
Valle del Cauca	41.9%	15.8%	25.0%	16.1%	1.2%	8458
Valledupar	41.2%	16.2%	24.9%	16.3%	1.5%	5280
Vichada	30.9%	16.6%	28.8%	20.5%	3.2%	771
Villavicencio	44.7%	16.2%	21.4%	15.9%	1.7%	5771
Yopal	42.4%	16.3%	24.5%	15.1%	1.7%	1996
Yumbo	46.7%	13.5%	24.0%	14.8%	1.0%	1256
Zipaquirá	54.3%	13.0%	19.2%	12.6%	0.9%	1282
Colombia	42.3%	16.1%	24.2%	15.7%	1.7%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



- **Pregunta 42.**

Unos campesinos deben colocar un pequeño puente para cruzar un río. Ellos pueden escoger algunos de los siguientes materiales.

Material	Flexible	Peso del material	Peso que resiste
Madera	Sí	Liviano	10,50 toneladas
Concreto	No	Pesado	8,00 toneladas
Piedra	No	Pesado	7,98 toneladas
Metal	Sí	Pesado	10,05 toneladas

Si los campesinos no cuentan con maquinaria para alzar los materiales, ¿Cuál sería el material más apropiado para construir la estructura?

- A. Madera.
- B. Concreto.
- C. Piedra.
- D. Metal.

- **Estructura**

Competencia	Uso comprensivo del conocimiento científico
Componente	Cts
Afirmación	Comprender el funcionamiento de diferentes objetos a partir de sus usos y propiedades.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	A



• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	54.6%	15.1%	12.7%	14.0%	3.6%	974
Antioquia	53.7%	16.2%	13.9%	14.5%	1.7%	29322
Apartadó	52.6%	16.0%	14.1%	14.7%	2.6%	1767
Arauca	53.7%	16.0%	14.0%	15.0%	1.2%	2669
Armenia	48.6%	19.1%	15.2%	15.4%	1.7%	2580
Atlántico	42.9%	21.9%	17.1%	14.5%	3.7%	5983
Barrancabermeja	52.3%	18.3%	14.1%	14.0%	1.4%	2505
Barranquilla	48.1%	21.1%	15.2%	14.0%	1.6%	12395
Bello	53.0%	17.4%	14.0%	14.2%	1.4%	3831
Bogotá, D.C.	52.9%	17.0%	14.8%	14.0%	1.4%	66800
Bolívar	45.5%	19.3%	16.8%	15.3%	3.1%	11151
Boyacá	52.7%	16.4%	15.1%	14.8%	1.0%	9253
Bucaramanga	53.7%	15.6%	14.3%	15.2%	1.2%	5292
Buenaventura	53.8%	14.9%	13.4%	14.8%	3.1%	4157
Buga	51.8%	18.2%	13.5%	14.7%	1.9%	1232
Caldas	52.0%	17.2%	13.7%	16.0%	1.2%	5745
Cali	53.8%	15.9%	14.6%	14.1%	1.7%	19608
Caquetá	56.6%	13.7%	13.2%	14.7%	1.8%	3243
Cartagena	48.5%	20.9%	14.8%	13.8%	2.1%	11444
Cartago	49.8%	20.0%	15.1%	14.0%	1.1%	1275
Casanare	53.4%	16.7%	14.3%	14.1%	1.4%	3063
Cauca	54.9%	12.6%	14.0%	16.2%	2.2%	12549
Cesar	50.3%	18.1%	15.3%	14.8%	1.5%	8455
Chocó	56.1%	14.3%	13.8%	13.0%	2.8%	3818
Chía	54.5%	16.3%	15.5%	12.9%	0.8%	1455
Ciénaga	49.0%	20.3%	15.2%	12.5%	3.0%	1510
Cundinamarca	54.2%	16.0%	14.6%	14.0%	1.2%	16385
Córdoba	47.8%	19.2%	15.8%	15.0%	2.2%	13345
Cúcuta	51.6%	16.1%	15.3%	15.7%	1.3%	7402
Dosquebradas	51.4%	19.6%	13.4%	13.9%	1.7%	1853
Duitama	55.3%	15.7%	14.5%	14.2%	0.3%	1405
Envigado	60.1%	15.2%	13.4%	10.3%	1.0%	1411
Facatativá	54.7%	15.1%	15.0%	14.8%	0.4%	1406
Florencia	51.3%	15.1%	13.4%	19.1%	1.1%	2079
Floridablanca	53.1%	16.7%	14.7%	14.2%	1.3%	2598
Fusagasugá	52.1%	16.8%	16.0%	13.8%	1.4%	1235
Girardot	48.7%	18.0%	16.0%	13.5%	3.8%	901

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GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	48.1%	19.4%	14.7%	16.9%	0.9%	1515
Guainía	61.9%	10.5%	10.2%	14.6%	2.7%	512
Guaviare	52.1%	18.3%	13.7%	14.1%	1.8%	920
Huila	55.0%	13.6%	13.0%	17.5%	0.9%	8186
Ibagué	54.5%	15.8%	13.2%	15.6%	0.9%	5529
Ipiales	47.8%	17.4%	19.2%	14.8%	0.9%	1480
Itagüí	47.4%	19.4%	17.1%	15.0%	1.1%	2031
Jamundí	47.3%	16.0%	17.8%	16.9%	1.9%	1116
La Guajira	46.2%	19.6%	17.9%	14.0%	2.3%	3926
Lorica	49.9%	19.0%	13.6%	15.9%	1.6%	1541
Magangué	44.7%	20.1%	17.8%	15.6%	1.7%	1660
Magdalena	48.7%	19.6%	15.1%	14.0%	2.6%	9131
Maicao	46.0%	19.7%	16.8%	15.1%	2.4%	2161
Malambo	50.2%	18.6%	14.3%	13.9%	3.0%	1286
Manizales	51.5%	17.7%	14.9%	14.9%	0.9%	3134
Medellín	48.0%	19.1%	16.4%	14.8%	1.7%	20626
Meta	49.3%	16.9%	14.5%	17.4%	1.8%	6019
Montería	45.7%	21.9%	15.5%	15.0%	1.8%	5509
Mosquera	52.1%	16.4%	15.5%	14.8%	1.2%	1281
Nariño	58.4%	12.2%	13.6%	14.0%	1.8%	9244
Neiva	49.9%	16.2%	14.6%	17.9%	1.3%	3674
Norte de Santander	55.6%	14.8%	13.6%	14.6%	1.5%	8006
Palmira	55.3%	16.1%	13.1%	14.8%	0.6%	2770
Pasto	53.9%	15.4%	14.8%	14.7%	1.1%	4040
Pereira	52.5%	18.3%	12.8%	15.2%	1.2%	4349
Piedecuesta	52.3%	16.9%	15.4%	14.2%	1.1%	1487
Pitalito	51.3%	16.7%	14.9%	16.4%	0.7%	1588
Popayán	54.6%	15.7%	14.7%	13.9%	1.1%	3099
Putumayo	55.0%	14.1%	13.0%	15.8%	2.1%	4157
Quibdó	49.5%	16.2%	16.3%	15.0%	2.9%	1328
Quindío	48.3%	18.2%	15.3%	16.3%	1.9%	2454
Riohacha	46.8%	20.7%	16.7%	13.8%	2.1%	2580
Rionegro	55.4%	17.3%	14.0%	12.4%	0.9%	1193
Risaralda	52.5%	16.9%	13.6%	15.0%	2.0%	2797
Sabaneta	57.8%	18.8%	11.0%	11.8%	0.6%	516
Sahagún	48.8%	18.8%	16.5%	14.2%	1.8%	1215
San Andrés	43.6%	24.8%	15.0%	15.5%	1.1%	548
Santa Marta	48.2%	20.1%	14.6%	15.5%	1.6%	5835
Santander	55.4%	15.3%	13.7%	14.6%	0.9%	8650
Sincelejo	46.9%	22.0%	14.9%	14.7%	1.6%	3223

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	52.2%	18.3%	13.2%	15.1%	1.1%	5626
Sogamoso	52.7%	17.7%	14.1%	14.8%	0.7%	1510
Soledad	47.7%	19.7%	15.0%	16.0%	1.6%	5490
Sucre	49.8%	17.6%	15.6%	15.4%	1.5%	7745
Tolima	51.5%	16.0%	13.7%	17.2%	1.6%	9703
Tuluá	54.7%	15.3%	13.9%	15.2%	0.9%	2140
Tumaco	44.4%	18.4%	16.5%	16.3%	4.4%	2367
Tunja	50.1%	17.3%	15.6%	16.1%	0.9%	1869
Turbo	48.3%	17.9%	15.6%	15.7%	2.6%	2128
Uribia	43.3%	16.2%	22.8%	13.5%	4.2%	1099
Valle del Cauca	52.9%	17.1%	14.0%	14.9%	1.1%	8458
Valledupar	51.2%	19.8%	13.6%	14.1%	1.3%	5280
Vichada	57.3%	12.6%	14.4%	12.3%	3.4%	771
Villavicencio	51.2%	16.0%	15.0%	16.1%	1.7%	5771
Yopal	50.0%	17.9%	16.4%	14.4%	1.3%	1996
Yumbo	52.9%	17.4%	13.7%	14.4%	1.7%	1256
Zipaquirá	53.5%	15.9%	15.1%	14.7%	0.8%	1282
Colombia	51.6%	17.2%	14.8%	14.8%	1.6%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.



• **Pregunta 43.**

Antes de plantar cualquier cultivo, la tierra debe revolverse para que pueda aprovecharse de una forma más efectiva. Este proceso se conoce como arado, que además de revolver la tierra busca formar franjas para poder sembrar fácilmente. ¿Cuál de las siguientes herramientas es la más adecuada para arar un terreno muy grande de tierra en un corto tiempo?

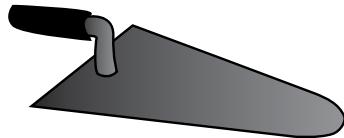
A.



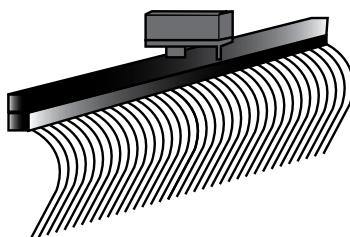
B.



C.



D.



• **Estructura**

Competencia	Uso comprensivo del conocimiento científico
Componente	Cts
Afirmación	Comprender la diferencia entre varios/diversos tipos de máquinas.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	D



• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	9.8%	8.7%	22.3%	55.7%	3.5%	974
Antioquia	12.2%	7.9%	21.2%	57.1%	1.7%	29322
Apartadó	12.5%	8.3%	26.4%	50.7%	2.2%	1767
Arauca	12.0%	6.7%	15.0%	64.7%	1.6%	2669
Armenia	10.7%	8.7%	23.3%	55.7%	1.5%	2580
Atlántico	13.4%	9.6%	22.2%	52.1%	2.8%	5983
Barrancabermeja	11.5%	7.1%	21.0%	59.1%	1.2%	2505
Barranquilla	11.3%	8.7%	23.9%	54.5%	1.6%	12395
Bello	11.1%	8.1%	25.4%	54.1%	1.3%	3831
Bogotá, D.C.	9.9%	6.4%	20.7%	61.7%	1.3%	66800
Bolívar	13.9%	11.0%	23.3%	48.9%	2.9%	11151
Boyacá	9.7%	6.6%	13.7%	69.0%	1.0%	9253
Bucaramanga	9.0%	7.1%	20.8%	61.8%	1.3%	5292
Buenaventura	12.5%	9.1%	26.1%	49.8%	2.5%	4157
Buga	13.0%	7.5%	21.4%	56.9%	1.2%	1232
Caldas	10.8%	6.4%	19.4%	62.2%	1.2%	5745
Cali	10.7%	7.2%	21.0%	59.6%	1.5%	19608
Caquetá	10.0%	9.2%	19.1%	60.2%	1.6%	3243
Cartagena	11.7%	9.1%	23.8%	53.2%	2.2%	11444
Cartago	10.6%	7.1%	19.0%	62.0%	1.3%	1275
Casanare	9.6%	6.3%	16.8%	65.7%	1.6%	3063
Cauca	12.1%	7.4%	17.2%	61.0%	2.3%	12549
Cesar	11.0%	8.9%	17.9%	61.1%	1.1%	8455
Chocó	14.0%	10.0%	25.0%	48.6%	2.4%	3818
Chía	8.1%	5.8%	16.4%	69.0%	0.8%	1455
Ciénaga	9.9%	8.9%	24.3%	54.0%	2.9%	1510
Cundinamarca	9.3%	5.9%	15.3%	68.4%	1.1%	16385
Córdoba	13.8%	9.4%	17.3%	57.7%	1.8%	13345
Cúcuta	11.0%	7.4%	20.8%	59.4%	1.3%	7402
Dosquebradas	9.1%	5.9%	20.1%	63.8%	1.1%	1853
Duitama	9.7%	5.7%	13.9%	70.2%	0.5%	1405
Envigado	10.5%	6.8%	20.1%	61.9%	0.8%	1411
Facatativá	9.7%	6.0%	17.0%	66.5%	0.8%	1406
Florencia	11.2%	7.8%	22.0%	57.5%	1.4%	2079
Floridablanca	10.2%	6.5%	18.4%	63.7%	1.2%	2598
Fusagasugá	10.4%	6.0%	19.5%	62.8%	1.3%	1235
Girardot	11.2%	7.3%	22.1%	56.3%	3.1%	901

Continúa en la siguiente página



GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	12.4%	8.9%	21.2%	56.6%	0.9%	1515
Guainía	11.3%	4.9%	21.5%	59.8%	2.5%	512
Guaviare	10.5%	7.1%	18.4%	62.1%	2.0%	920
Huila	10.0%	6.4%	16.2%	66.3%	1.0%	8186
Ibagué	9.3%	6.7%	18.8%	64.4%	0.9%	5529
Ipiales	9.5%	7.1%	12.6%	69.8%	1.1%	1480
Itagüí	14.4%	8.7%	24.2%	51.3%	1.3%	2031
Jamundí	12.6%	8.8%	20.7%	56.0%	1.9%	1116
La Guajira	12.0%	9.5%	20.3%	56.1%	2.1%	3926
Lorica	13.5%	8.7%	19.2%	56.8%	1.8%	1541
Magangué	12.6%	9.0%	25.5%	51.3%	1.6%	1660
Magdalena	12.8%	9.5%	19.9%	55.3%	2.5%	9131
Maicao	10.6%	10.6%	22.1%	54.8%	2.0%	2161
Malambo	11.5%	8.5%	20.1%	57.3%	2.6%	1286
Manizales	9.4%	7.0%	22.0%	60.6%	1.1%	3134
Medellín	13.4%	9.2%	24.8%	51.0%	1.6%	20626
Meta	11.1%	7.5%	16.4%	63.4%	1.6%	6019
Montería	11.9%	9.9%	19.3%	57.4%	1.5%	5509
Mosquera	7.9%	5.9%	17.6%	67.4%	1.2%	1281
Nariño	10.0%	5.8%	14.5%	67.8%	1.9%	9244
Neiva	10.9%	7.5%	21.0%	59.3%	1.4%	3674
Norte de Santander	10.5%	6.7%	16.7%	65.0%	1.1%	8006
Palmira	10.0%	7.0%	19.0%	63.2%	0.6%	2770
Pasto	9.3%	4.9%	16.6%	68.1%	1.0%	4040
Pereira	9.6%	6.7%	21.2%	61.4%	1.0%	4349
Piedecuesta	9.5%	6.9%	19.8%	62.5%	1.3%	1487
Pitalito	10.5%	8.2%	19.5%	60.9%	0.8%	1588
Popayán	10.1%	6.7%	16.5%	65.4%	1.3%	3099
Putumayo	9.8%	7.0%	20.0%	60.9%	2.3%	4157
Quibdó	13.9%	10.5%	24.9%	48.1%	2.6%	1328
Quindío	10.8%	8.1%	18.9%	60.3%	1.9%	2454
Riohacha	12.5%	9.8%	23.6%	51.9%	2.2%	2580
Rionegro	11.0%	4.9%	21.2%	62.1%	0.8%	1193
Risaralda	9.7%	6.7%	19.7%	62.0%	2.0%	2797
Sabaneta	10.1%	7.6%	21.5%	60.3%	0.6%	516
Sahagún	11.4%	7.8%	16.3%	62.8%	1.6%	1215
San Andrés	14.4%	12.4%	25.0%	46.5%	1.6%	548
Santa Marta	11.9%	9.2%	23.5%	54.0%	1.5%	5835
Santander	9.8%	5.9%	15.0%	68.5%	0.8%	8650
Sincelejo	11.4%	8.1%	19.5%	60.0%	1.1%	3223

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Soacha	10.7%	7.8%	21.4%	59.0%	1.0%	5626
Sogamoso	9.6%	7.0%	14.0%	69.0%	0.5%	1510
Soledad	10.9%	8.2%	24.8%	54.8%	1.3%	5490
Sucre	14.1%	8.2%	16.0%	60.2%	1.5%	7745
Tolima	10.6%	7.1%	18.3%	62.4%	1.5%	9703
Tuluá	9.3%	6.1%	16.0%	67.6%	1.0%	2140
Tumaco	15.9%	12.1%	26.2%	42.0%	3.8%	2367
Tunja	9.1%	6.3%	15.6%	68.4%	0.7%	1869
Turbo	15.2%	10.5%	25.0%	46.8%	2.5%	2128
Uribia	11.6%	13.0%	21.5%	49.9%	4.0%	1099
Valle del Cauca	10.7%	7.1%	17.5%	63.6%	1.1%	8458
Valledupar	9.8%	7.5%	20.6%	61.3%	0.9%	5280
Vichada	11.7%	7.5%	14.0%	64.1%	2.7%	771
Villavicencio	11.8%	7.3%	18.3%	61.1%	1.5%	5771
Yopal	11.1%	6.7%	18.3%	62.8%	1.1%	1996
Yumbo	9.8%	6.8%	22.9%	59.2%	1.4%	1256
Zipaquirá	8.0%	5.7%	15.9%	69.7%	0.7%	1282
Colombia	11.1%	7.7%	19.9%	59.7%	1.5%	496903

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

