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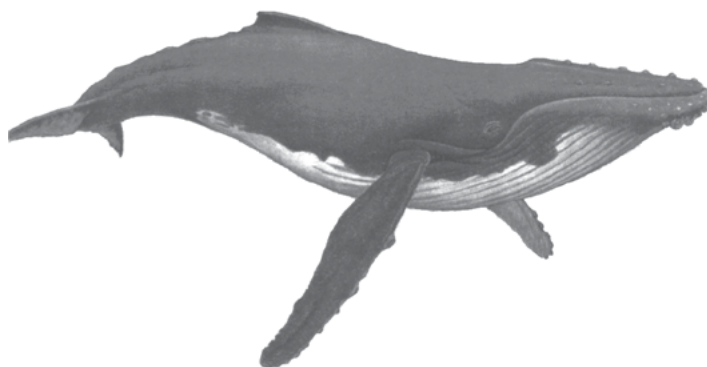
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## GRADO 5° - PRUEBA DE CIENCIAS NATURALES

### • Pregunta 1.

Las ballenas Yubarta atraviesan todos los años cientos de kilómetros desde el Polo Sur hasta las costas del océano Pacífico colombiano. Al llegar tienen sus crías y después de unos meses vuelven a migrar al sur.



Tomado de: "Mamíferos acuáticos & relacionados con el agua neotropicales Conservación internacional". Serie libretas de campo.

Las ballenas viajan a Colombia en busca de

- A. aguas profundas para vivir.
- B. mares y océanos lejos de los cazadores.
- C. las corrientes marinas.
- D. aguas cálidas para tener sus crías.

### • Estructura

<b>Competencia</b>	Uso comprensivo del conocimiento científico
<b>Componente</b>	Entorno vivo
<b>Afirmación</b>	Comprender que existen relaciones entre los seres vivos y el entorno y que ellos dependen de éstas.
<b>Nivel de desempeño</b>	Satisfactorio
<b>Respuesta correcta</b>	D

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

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	25.0%	15.3%	4.7%	50.3%	4.7%	789
Antioquia	18.9%	11.8%	3.3%	64.6%	1.3%	21458
Apartadó	21.4%	10.9%	3.9%	62.5%	1.3%	1238
Arauca	20.2%	11.0%	3.3%	64.4%	1.2%	1996
Armenia	16.3%	9.8%	2.7%	70.9%	0.3%	2027
Atlántico	22.5%	14.3%	5.1%	55.1%	3.0%	4447
Barrancabermeja	19.2%	10.5%	3.5%	66.0%	0.8%	1765
Barranquilla	19.4%	10.4%	3.3%	66.0%	0.9%	8016
Bello	13.7%	7.3%	3.0%	75.5%	0.6%	3060
Bogotá, D.C.	12.0%	8.6%	3.2%	74.3%	2.0%	52960
Bolívar	30.0%	15.4%	4.5%	47.7%	2.4%	7919
Boyacá	19.1%	11.8%	4.2%	64.1%	0.8%	7143
Bucaramanga	11.7%	9.0%	3.1%	75.9%	0.4%	3993
Buenaventura	20.9%	11.4%	3.3%	62.2%	2.2%	2516
Buga	13.7%	9.1%	2.9%	70.0%	4.3%	860
Caldas	16.7%	11.5%	3.1%	67.6%	1.0%	4333
Cali	13.6%	9.1%	3.1%	72.7%	1.5%	14281
Caquetá	25.3%	13.0%	3.9%	56.2%	1.6%	2258
Cartagena	24.1%	10.2%	3.4%	60.7%	1.6%	8166
Cartago	14.1%	10.5%	3.5%	71.0%	0.9%	799
Casanare	19.2%	13.0%	3.6%	63.3%	0.9%	2134
Cauca	20.8%	13.6%	3.9%	59.3%	2.4%	8849
Cesar	22.4%	12.6%	3.8%	59.7%	1.5%	6079
Chocó	28.2%	16.0%	5.1%	46.6%	4.2%	2790
Chía	8.6%	7.1%	4.3%	79.5%	0.5%	969
Ciénaga	23.1%	10.9%	3.8%	59.2%	3.1%	1119
Cundinamarca	14.4%	10.1%	3.5%	71.2%	0.8%	11869
Córdoba	25.4%	13.5%	4.1%	55.3%	1.6%	9379
Cúcuta	17.5%	11.5%	3.9%	66.7%	0.3%	5493
Dosquebradas	14.6%	9.1%	3.6%	71.9%	0.8%	1247
Duitama	11.1%	9.2%	3.7%	75.8%	0.2%	1039
Envigado	8.9%	5.3%	2.0%	83.5%	0.2%	1221
Facatativá	13.0%	9.1%	3.6%	74.1%	0.2%	1066
Florencia	17.2%	13.4%	3.8%	64.8%	0.8%	1472
Floridablanca	11.6%	7.8%	3.2%	76.4%	1.0%	1845
Fusagasugá	14.7%	9.7%	2.6%	72.8%	0.2%	1057
Girardot	18.0%	12.6%	3.5%	64.4%	1.5%	778

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	15.4%	11.8%	3.3%	69.0%	0.6%	1009
Guainía	0.0%	0.0%	0.0%	100.0%	0.0%	1
Guaviare	21.6%	14.6%	1.8%	58.6%	3.4%	712
Huila	19.6%	11.9%	4.0%	64.0%	0.6%	6392
Ibagué	13.9%	10.4%	3.8%	71.3%	0.6%	3970
Ipiales	16.8%	11.7%	5.0%	66.0%	0.5%	1003
Itagüí	15.9%	10.3%	4.1%	68.5%	1.2%	1363
Jamundí	17.9%	8.8%	2.5%	69.9%	0.9%	867
La Guajira	26.6%	13.5%	3.8%	54.5%	1.6%	2473
Lorica	27.0%	14.5%	5.0%	51.2%	2.3%	1152
Magangué	26.0%	12.4%	3.7%	56.1%	1.9%	1221
Magdalena	26.1%	14.4%	4.2%	51.5%	3.7%	6259
Maicao	25.7%	14.2%	5.0%	51.1%	4.0%	1428
Malambo	19.6%	11.0%	4.3%	62.4%	2.6%	945
Manizales	13.7%	9.5%	3.5%	72.8%	0.5%	2328
Medellín	16.8%	10.6%	3.7%	68.2%	0.7%	16071
Meta	19.9%	10.8%	2.9%	64.6%	1.8%	3963
Montería	21.6%	12.2%	4.3%	60.6%	1.2%	3789
Mosquera	10.9%	8.0%	3.5%	77.2%	0.5%	880
Nariño	18.0%	12.8%	3.7%	63.3%	2.2%	7158
Neiva	17.7%	11.3%	3.3%	67.1%	0.6%	3001
Norte de Santander	19.1%	11.7%	3.3%	65.1%	0.8%	5716
Palmira	13.0%	9.9%	3.1%	72.8%	1.2%	2081
Pasto	15.6%	11.2%	4.3%	68.4%	0.5%	3132
Pereira	12.1%	9.8%	3.0%	74.2%	0.9%	3513
Piedecuesta	14.5%	11.6%	5.5%	68.0%	0.4%	1104
Pitalito	18.4%	10.8%	3.7%	66.5%	0.6%	1264
Popayán	14.4%	9.9%	3.2%	71.8%	0.7%	2081
Putumayo	21.3%	14.3%	4.8%	58.5%	1.1%	3242
Quibdó	21.6%	16.4%	5.2%	54.0%	2.8%	1058
Quindío	17.6%	12.0%	3.1%	66.8%	0.5%	2173
Riohacha	25.3%	13.7%	4.4%	55.2%	1.4%	1684
Rionegro	11.4%	8.5%	3.0%	77.0%	0.1%	826
Risaralda	16.0%	10.5%	3.0%	69.6%	0.8%	2246
Sabaneta	12.8%	6.4%	4.0%	76.5%	0.3%	374
Sahagún	23.5%	11.8%	3.2%	60.2%	1.3%	954
San Andrés	25.8%	10.1%	2.9%	57.7%	3.5%	454
Santa Marta	20.7%	9.6%	4.0%	63.9%	1.8%	4140
Santander	16.8%	11.1%	3.4%	68.0%	0.7%	6457
Sincelejo	22.0%	12.1%	3.1%	61.7%	1.1%	2551

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	14.2%	9.6%	3.8%	71.9%	0.5%	4149
Sogamoso	13.2%	8.6%	3.0%	75.0%	0.2%	1084
Soledad	21.0%	10.4%	3.6%	64.4%	0.6%	3900
Sucre	28.1%	13.5%	4.2%	52.5%	1.7%	5573
Tolima	18.7%	12.8%	4.3%	63.0%	1.2%	7453
Tuluá	12.6%	8.4%	3.0%	75.3%	0.7%	1616
Tumaco	25.4%	13.7%	5.7%	49.7%	5.5%	1864
Tunja	13.9%	8.3%	3.9%	73.4%	0.5%	1330
Turbo	27.5%	13.6%	4.6%	50.7%	3.5%	1474
Uribe	32.8%	20.1%	4.7%	40.3%	2.0%	402
Valle del Cauca	16.0%	10.8%	2.9%	69.2%	1.1%	7167
Valledupar	19.8%	11.5%	3.9%	62.7%	2.1%	3548
Vaupés	0.0%	25.0%	0.0%	75.0%	0.0%	4
Vichada	28.4%	15.5%	5.0%	46.9%	4.1%	458
Villavicencio	14.4%	9.9%	3.1%	72.2%	0.4%	4039
Yopal	15.1%	10.3%	3.3%	70.4%	0.9%	1316
Zipaquirá	12.8%	9.3%	4.8%	72.6%	0.5%	1028
Colombia	18.0%	11.1%	3.6%	65.9%	1.4%	365870

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



**RESPONDE LAS PREGUNTAS 2 Y 3 DE ACUERDO CON LA SIGUIENTE INFORMACIÓN**

Estos dibujos muestran diferentes clases de aves.



Paloma



Gallo



Pato



Águila

• **Pregunta 2.**

La característica que todas estas aves comparten es

- A. la forma del pico.
- B. las plumas.
- C. la forma de las patas.
- D. el tipo de alimentación.

• **Estructura**

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

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	13.4%	35.6%	15.1%	30.7%	5.2%	789
Antioquia	13.9%	46.9%	9.9%	28.0%	1.4%	21458
Apartadó	14.5%	43.5%	11.7%	28.9%	1.3%	1238
Arauca	13.1%	51.2%	10.0%	24.4%	1.3%	1996
Armenia	12.6%	49.4%	11.4%	26.1%	0.4%	2027
Atlántico	16.7%	38.3%	13.0%	28.6%	3.4%	4447
Barrancabermeja	14.5%	44.8%	12.3%	27.5%	1.0%	1765
Barranquilla	15.9%	44.5%	10.8%	27.6%	1.1%	8016
Bello	12.6%	50.7%	8.0%	28.1%	0.6%	3060
Bogotá, D.C.	12.9%	52.2%	8.7%	24.1%	2.0%	52960
Bolívar	16.9%	35.3%	14.8%	30.1%	2.9%	7919
Boyacá	14.3%	51.3%	10.5%	23.1%	0.8%	7143
Bucaramanga	12.9%	55.3%	9.4%	21.9%	0.4%	3993
Buenaventura	17.1%	42.4%	12.2%	25.6%	2.7%	2516
Buga	13.4%	48.3%	10.5%	23.8%	4.1%	860
Caldas	14.4%	48.8%	9.4%	26.6%	0.9%	4333
Cali	13.4%	51.1%	10.1%	23.7%	1.7%	14281
Caquetá	11.5%	48.2%	12.4%	26.2%	1.6%	2258
Cartagena	16.1%	43.7%	11.7%	26.9%	1.7%	8166
Cartago	18.0%	43.8%	10.0%	27.4%	0.8%	799
Casanare	13.2%	48.5%	10.0%	27.3%	0.9%	2134
Cauca	14.9%	46.4%	10.5%	25.5%	2.7%	8849
Cesar	16.0%	45.7%	10.1%	26.4%	1.7%	6079
Chocó	16.8%	37.8%	13.0%	27.9%	4.5%	2790
Chía	12.2%	56.1%	9.4%	21.7%	0.6%	969
Ciénaga	15.5%	40.9%	12.4%	27.6%	3.5%	1119
Cundinamarca	13.1%	53.0%	9.2%	23.9%	0.8%	11869
Córdoba	16.5%	41.7%	11.8%	28.2%	1.7%	9379
Cúcuta	16.9%	47.6%	9.4%	25.8%	0.3%	5493
Dosquebradas	13.5%	50.4%	9.7%	25.7%	0.7%	1247
Duitama	14.4%	57.5%	8.4%	19.4%	0.3%	1039
Envigado	9.3%	63.0%	6.7%	20.8%	0.2%	1221
Facatativá	12.2%	56.1%	7.4%	23.9%	0.4%	1066
Florencia	14.7%	47.2%	11.3%	26.0%	0.8%	1472
Floridablanca	14.1%	54.9%	8.9%	21.1%	1.0%	1845
Fusagasugá	14.3%	47.0%	9.9%	28.2%	0.6%	1057
Girardot	16.5%	42.7%	11.7%	27.5%	1.7%	778

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ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	15.7%	46.8%	10.5%	26.4%	0.7%	1009
Guainía	100.0%	0.0%	0.0%	0.0%	0.0%	1
Guaviare	11.8%	47.6%	13.2%	23.0%	4.4%	712
Huila	17.0%	45.4%	9.8%	27.1%	0.6%	6392
Ibagué	15.9%	51.6%	9.7%	22.1%	0.7%	3970
Ipiales	12.1%	56.6%	8.4%	22.4%	0.5%	1003
Itagüí	12.1%	53.2%	9.1%	24.2%	1.4%	1363
Jamundí	13.1%	49.9%	9.1%	26.6%	1.2%	867
La Guajira	17.1%	39.7%	14.1%	27.1%	2.1%	2473
Lorica	16.7%	40.4%	13.6%	26.7%	2.6%	1152
Magangué	19.7%	36.8%	11.1%	30.1%	2.4%	1221
Magdalena	16.2%	36.0%	14.7%	29.2%	3.9%	6259
Maicao	15.9%	40.1%	13.5%	26.0%	4.6%	1428
Malambo	15.3%	46.2%	9.9%	26.1%	2.3%	945
Manizales	13.8%	49.9%	9.6%	26.2%	0.6%	2328
Medellín	13.0%	48.1%	10.1%	28.0%	0.8%	16071
Meta	12.7%	48.6%	10.8%	26.1%	1.8%	3963
Montería	18.1%	41.4%	10.6%	29.0%	1.0%	3789
Mosquera	14.1%	51.0%	8.8%	25.6%	0.6%	880
Nariño	14.4%	51.2%	9.2%	22.7%	2.4%	7158
Neiva	16.6%	46.5%	10.1%	26.1%	0.8%	3001
Norte de Santander	14.8%	52.1%	9.7%	22.6%	0.8%	5716
Palmira	15.0%	51.9%	8.7%	23.2%	1.1%	2081
Pasto	14.2%	52.3%	10.0%	23.0%	0.5%	3132
Pereira	13.5%	50.2%	9.6%	25.8%	0.9%	3513
Piedecuesta	13.7%	47.9%	10.8%	27.2%	0.5%	1104
Pitalito	16.6%	47.2%	10.8%	24.8%	0.6%	1264
Popayán	14.6%	51.7%	9.0%	24.0%	0.8%	2081
Putumayo	15.1%	46.4%	11.0%	26.5%	1.0%	3242
Quibdó	16.1%	40.1%	11.9%	28.5%	3.4%	1058
Quindío	15.7%	46.4%	9.9%	27.3%	0.6%	2173
Riohacha	15.0%	43.8%	12.0%	26.9%	2.3%	1684
Rionegro	10.4%	56.4%	8.8%	24.0%	0.4%	826
Risaralda	14.8%	44.5%	9.8%	30.0%	0.9%	2246
Sabaneta	9.9%	57.2%	9.6%	22.5%	0.8%	374
Sahagún	17.9%	42.2%	11.2%	27.0%	1.6%	954
San Andrés	11.2%	41.6%	14.5%	29.1%	3.5%	454
Santa Marta	17.0%	43.0%	11.4%	26.7%	2.0%	4140
Santander	14.9%	52.5%	9.4%	22.4%	0.8%	6457
Sincedejo	18.9%	41.2%	11.3%	27.1%	1.5%	2551

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	14.6%	48.1%	9.8%	26.8%	0.7%	4149
Sogamoso	15.0%	57.7%	7.8%	19.3%	0.2%	1084
Soledad	17.9%	42.0%	10.4%	29.0%	0.6%	3900
Sucre	17.3%	37.5%	13.2%	30.0%	2.1%	5573
Tolima	16.5%	45.5%	10.7%	25.9%	1.3%	7453
Tuluá	11.9%	52.8%	11.0%	23.5%	0.8%	1616
Tumaco	17.4%	36.8%	13.0%	26.8%	6.0%	1864
Tunja	13.2%	53.6%	9.0%	23.8%	0.5%	1330
Turbo	16.9%	37.4%	15.5%	26.5%	3.7%	1474
Uribe	21.1%	35.1%	16.2%	26.6%	1.0%	402
Valle del Cauca	14.4%	48.1%	10.2%	26.2%	1.1%	7167
Valledupar	17.5%	42.3%	9.8%	28.2%	2.1%	3548
Vaupés	25.0%	50.0%	25.0%	0.0%	0.0%	4
Vichada	14.0%	41.5%	11.4%	27.7%	5.5%	458
Villavicencio	13.4%	51.8%	10.2%	24.1%	0.5%	4039
Yopal	13.4%	51.7%	8.0%	26.1%	0.8%	1316
Zipaquirá	16.0%	51.8%	10.0%	21.9%	0.4%	1028
Colombia	14.7%	47.6%	10.3%	25.8%	1.6%	365870

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

• **Pregunta 3.**

¿Cuáles de las aves de los dibujos pueden comer el mismo tipo de alimento?

- A.** El gallo y la paloma.
- B.** El gallo y el águila.
- C.** El pato y el águila.
- D.** La paloma y el águila.

• **Estructura**

<b>Competencia</b>	Uso comprensivo del conocimiento científico
<b>Componente</b>	Entorno vivo
<b>Afirmación</b>	Comprender que los seres vivos dependen del funcionamiento e interacción de sus partes.
<b>Nivel de desempeño</b>	Mínimo
<b>Respuesta Correcta</b>	A

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

ETC	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	66.0%	10.0%	9.8%	9.1%	5.1%	789
Antioquia	78.0%	6.5%	5.4%	8.5%	1.5%	21458
Apartadó	72.3%	8.2%	7.0%	10.7%	1.8%	1238
Arauca	79.5%	6.1%	5.7%	7.5%	1.3%	1996
Armenia	75.2%	7.7%	6.9%	9.8%	0.4%	2027
Atlántico	67.6%	8.6%	7.2%	12.5%	4.0%	4447
Barrancabermeja	74.8%	8.0%	5.5%	10.4%	1.2%	1765
Barranquilla	75.1%	7.2%	5.5%	10.9%	1.3%	8016
Bello	75.5%	8.2%	5.4%	10.4%	0.6%	3060
Bogotá, D.C.	78.6%	6.6%	4.3%	8.3%	2.1%	52960
Bolívar	65.5%	9.6%	9.0%	12.4%	3.5%	7919
Boyacá	79.6%	5.8%	5.2%	8.4%	1.0%	7143
Bucaramanga	79.5%	6.1%	5.0%	8.9%	0.5%	3993
Buenaventura	64.1%	8.5%	7.9%	16.7%	2.7%	2516
Buga	73.6%	6.4%	5.1%	10.6%	4.3%	860
Caldas	80.5%	5.7%	4.4%	8.2%	1.2%	4333
Cali	76.1%	7.1%	5.2%	9.8%	1.9%	14281
Caquetá	78.8%	6.5%	6.0%	6.9%	1.9%	2258

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC	A	B	C	D	Omisión y multimarca	N° estudiantes
Cartagena	74.1%	7.3%	6.0%	10.5%	1.9%	8166
Cartago	76.7%	9.0%	4.5%	8.5%	1.3%	799
Casanare	78.7%	6.9%	4.9%	8.1%	1.4%	2134
Cauca	76.7%	6.2%	5.7%	8.7%	2.8%	8849
Cesar	75.0%	7.0%	5.5%	10.7%	1.8%	6079
Chocó	55.2%	10.9%	13.1%	15.8%	4.9%	2790
Chía	81.0%	5.7%	4.5%	8.3%	0.5%	969
Ciénaga	72.2%	7.0%	6.5%	10.8%	3.5%	1119
Cundinamarca	80.1%	6.1%	4.6%	8.2%	1.0%	11869
Córdoba	73.4%	7.1%	6.7%	11.0%	1.9%	9379
Cúcuta	76.4%	7.4%	4.5%	11.2%	0.5%	5493
Dosquebradas	76.3%	9.0%	4.7%	8.9%	1.1%	1247
Duitama	83.0%	5.2%	3.5%	8.0%	0.4%	1039
Envigado	78.1%	8.3%	3.9%	9.5%	0.2%	1221
Facatativá	79.1%	7.7%	5.1%	7.8%	0.4%	1066
Florencia	78.5%	7.3%	5.4%	7.6%	1.2%	1472
Floridablanca	79.7%	8.2%	3.9%	7.0%	1.1%	1845
Fusagasugá	80.0%	7.0%	4.1%	8.2%	0.7%	1057
Girardot	69.7%	9.3%	6.7%	13.1%	1.3%	778
Girón	76.8%	6.5%	6.6%	9.5%	0.5%	1009
Guainía	100.0%	0.0%	0.0%	0.0%	0.0%	1
Guaviare	76.4%	6.3%	5.1%	8.4%	3.8%	712
Huila	81.1%	6.0%	5.0%	7.2%	0.8%	6392
Ibagué	80.2%	6.4%	4.8%	7.7%	0.9%	3970
Ipiales	86.2%	5.2%	2.9%	5.0%	0.7%	1003
Itagüí	72.3%	7.9%	7.1%	11.2%	1.5%	1363
Jamundí	74.7%	6.7%	6.1%	10.6%	1.8%	867
La Guajira	69.7%	8.7%	7.0%	12.5%	2.3%	2473
Lorica	65.8%	9.6%	8.4%	13.5%	2.6%	1152
Magangué	67.5%	7.3%	7.4%	14.9%	2.9%	1221
Magdalena	65.5%	8.5%	8.9%	13.0%	4.1%	6259
Maicao	63.7%	11.5%	8.3%	11.6%	4.9%	1428
Malambo	73.2%	7.6%	6.0%	9.8%	3.3%	945
Manizales	80.5%	6.8%	3.8%	8.3%	0.6%	2328
Medellín	69.7%	9.9%	7.0%	12.4%	1.0%	16071
Meta	77.2%	6.9%	5.3%	8.4%	2.1%	3963
Montería	77.8%	6.8%	5.4%	8.6%	1.4%	3789
Mosquera	81.4%	6.7%	3.8%	7.8%	0.3%	880
Nariño	79.0%	4.8%	4.7%	8.7%	2.8%	7158
Neiva	80.5%	6.8%	4.7%	7.1%	0.9%	3001

Continúa en la siguiente página



ETC	A	B	C	D	Omisión y multimarca	N° estudiantes
Norte de Santander	79.8%	6.2%	4.5%	8.4%	1.1%	5716
Palmira	77.4%	7.4%	4.4%	9.3%	1.5%	2081
Pasto	80.6%	6.3%	4.8%	7.8%	0.5%	3132
Pereira	78.6%	6.7%	5.0%	8.8%	1.0%	3513
Piedecuesta	82.4%	6.1%	3.8%	7.2%	0.5%	1104
Pitalito	80.1%	6.2%	6.6%	6.4%	0.6%	1264
Popayán	84.1%	5.3%	3.3%	6.2%	1.1%	2081
Putumayo	80.0%	5.6%	5.6%	7.4%	1.4%	3242
Quibdó	54.9%	10.9%	12.3%	18.1%	3.8%	1058
Quindío	77.3%	7.7%	5.4%	8.7%	0.9%	2173
Riohacha	68.1%	9.7%	7.7%	11.9%	2.6%	1684
Rionegro	77.1%	6.2%	6.5%	9.9%	0.2%	826
Risaralda	80.1%	6.0%	4.3%	8.2%	1.4%	2246
Sabaneta	78.6%	4.8%	6.7%	9.1%	0.8%	374
Sahagún	75.1%	6.5%	5.7%	11.0%	1.8%	954
San Andrés	62.6%	9.5%	9.3%	15.0%	3.7%	454
Santa Marta	72.2%	7.2%	5.6%	12.9%	2.1%	4140
Santander	83.5%	5.4%	4.3%	5.9%	0.8%	6457
Sincelejo	76.3%	7.2%	4.9%	10.0%	1.5%	2551
Soacha	79.2%	6.6%	4.7%	8.9%	0.6%	4149
Sogamoso	85.7%	4.4%	2.5%	7.1%	0.3%	1084
Soledad	74.5%	7.8%	5.0%	11.9%	0.8%	3900
Sucre	70.2%	7.8%	8.2%	11.6%	2.3%	5573
Tolima	79.8%	6.0%	4.9%	7.8%	1.6%	7453
Tuluá	76.1%	7.7%	4.6%	10.7%	0.8%	1616
Tumaco	58.5%	9.8%	9.7%	15.7%	6.3%	1864
Tunja	80.4%	6.4%	4.2%	8.4%	0.6%	1330
Turbo	64.7%	9.2%	9.0%	13.0%	4.2%	1474
Uribe	64.4%	13.7%	11.9%	8.2%	1.7%	402
Valle del Cauca	77.6%	6.7%	5.7%	8.7%	1.3%	7167
Valledupar	74.8%	6.5%	5.6%	10.6%	2.4%	3548
Vaupés	50.0%	25.0%	25.0%	0.0%	0.0%	4
Vichada	67.5%	9.8%	6.1%	11.6%	5.0%	458
Villavicencio	79.9%	7.4%	4.3%	7.7%	0.6%	4039
Yopal	78.2%	6.3%	5.1%	9.2%	1.2%	1316
Zipacquirá	82.6%	5.5%	3.6%	7.6%	0.7%	1028
Colombia	76.1%	7.1%	5.5%	9.5%	1.7%	365870

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

## • Pregunta 4.

Pedro entrena a un mono lanzando al aire palos rojos, azules y blancos, todos de la misma forma y tamaño. El mono recibe un premio cada vez que recoge un palo rojo. Después de unos días, Pedro lanza al tiempo los tres palos de diferente color y observa que el mono recoge el palo de color rojo. Con este experimento se logra saber que el mono puede

- A. jugar con palos rojos, azules y blancos.
- B. reconocer el color rojo.
- C. recoger objetos de colores.
- D. diferenciar el color azul del rojo y del blanco.

## • Estructura

<b>Competencia</b>	Indagación
<b>Componente</b>	Entorno vivo
<b>Afirmación</b>	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.
<b>Nivel de desempeño</b>	Satisfactorio
<b>Respuesta Correcta</b>	B

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	13.2%	40.9%	15.3%	25.0%	5.6%	789
Antioquia	10.9%	50.7%	13.6%	23.0%	1.7%	21458
Apartadó	13.1%	49.1%	15.1%	21.0%	1.7%	1238
Arauca	10.9%	54.2%	14.0%	19.2%	1.8%	1996
Armenia	9.4%	51.2%	13.0%	25.6%	0.8%	2027
Atlántico	14.1%	44.8%	15.1%	22.0%	4.0%	4447
Barrancabermeja	10.8%	51.4%	13.9%	22.2%	1.8%	1765
Barranquilla	11.8%	52.2%	12.5%	22.2%	1.4%	8016
Bello	8.0%	53.3%	12.0%	25.9%	0.7%	3060
Bogotá, D.C.	6.2%	56.1%	11.3%	24.1%	2.2%	52960
Bolívar	16.6%	39.3%	17.0%	23.5%	3.5%	7919
Boyacá	10.5%	51.8%	14.7%	22.0%	0.9%	7143
Bucaramanga	7.3%	58.0%	10.2%	23.9%	0.5%	3993
Buenaventura	12.4%	50.0%	13.2%	21.6%	2.8%	2516
Buga	10.6%	51.4%	11.3%	22.2%	4.5%	860
Caldas	10.6%	53.0%	12.8%	22.5%	1.0%	4333

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Cali	8.5%	56.1%	11.4%	22.0%	2.0%	14281
Caquetá	13.6%	47.4%	16.9%	20.3%	1.9%	2258
Cartagena	13.7%	49.4%	13.5%	21.3%	2.1%	8166
Cartago	8.9%	51.7%	10.8%	27.4%	1.3%	799
Casanare	10.2%	48.1%	15.8%	24.3%	1.6%	2134
Cauca	13.7%	48.7%	15.1%	19.4%	3.1%	8849
Cesar	12.5%	49.5%	14.3%	21.5%	2.3%	6079
Chocó	16.0%	39.3%	15.3%	23.9%	5.6%	2790
Chía	6.7%	58.6%	9.5%	24.6%	0.6%	969
Ciénaga	12.7%	47.4%	17.2%	19.0%	3.8%	1119
Cundinamarca	8.3%	55.4%	13.4%	21.9%	1.0%	11869
Córdoba	14.3%	43.6%	16.6%	23.4%	2.1%	9379
Cúcuta	10.4%	53.5%	13.2%	22.2%	0.7%	5493
Dosquebradas	6.2%	54.9%	14.4%	23.3%	1.2%	1247
Duitama	5.6%	60.7%	10.4%	23.0%	0.3%	1039
Envigado	5.3%	59.4%	8.5%	26.6%	0.2%	1221
Facatativá	6.7%	57.3%	12.1%	23.4%	0.6%	1066
Florencia	11.1%	50.1%	15.2%	21.9%	1.6%	1472
Floridablanca	7.2%	58.9%	10.1%	22.5%	1.4%	1845
Fusagasugá	8.3%	52.8%	13.4%	24.7%	0.8%	1057
Girardot	13.5%	49.6%	13.6%	21.5%	1.8%	778
Girón	10.6%	50.5%	13.2%	25.0%	0.7%	1009
Guainía	100.0%	0.0%	0.0%	0.0%	0.0%	1
Guaviare	13.2%	46.5%	13.3%	22.3%	4.6%	712
Huila	10.2%	52.4%	15.3%	21.2%	0.9%	6392
Ibagué	8.6%	55.2%	13.3%	21.9%	1.0%	3970
Ipiales	7.5%	56.2%	12.3%	23.0%	1.0%	1003
Itagüí	9.2%	51.4%	11.8%	25.9%	1.7%	1363
Jamundí	11.1%	50.6%	14.3%	22.5%	1.5%	867
La Guajira	15.5%	44.4%	16.1%	21.6%	2.4%	2473
Lorica	14.4%	41.9%	18.7%	21.8%	3.2%	1152
Magangué	15.5%	43.4%	15.8%	22.4%	2.9%	1221
Magdalena	15.7%	41.3%	15.4%	23.2%	4.3%	6259
Maicao	15.5%	40.1%	18.0%	21.1%	5.4%	1428
Malambo	12.4%	50.9%	12.8%	20.7%	3.2%	945
Manizales	7.9%	56.1%	11.4%	24.0%	0.6%	2328
Medellín	10.3%	51.1%	13.0%	24.5%	1.2%	16071
Meta	10.0%	50.8%	14.8%	22.1%	2.3%	3963
Montería	11.4%	46.6%	15.5%	24.8%	1.6%	3789
Mosquera	4.4%	57.6%	12.7%	24.8%	0.5%	880

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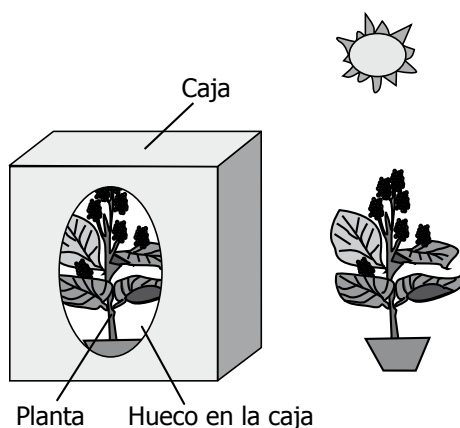
## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Nariño	10.7%	54.9%	12.3%	19.5%	2.6%	7158
Neiva	10.3%	52.5%	16.0%	20.4%	0.8%	3001
Norte de Santander	10.9%	54.8%	12.7%	20.5%	1.0%	5716
Palmira	7.5%	54.7%	12.0%	24.2%	1.6%	2081
Pasto	7.6%	57.2%	11.7%	23.0%	0.4%	3132
Pereira	7.4%	56.7%	11.9%	23.0%	0.9%	3513
Piedecuesta	9.3%	56.2%	12.2%	21.6%	0.6%	1104
Pitalito	9.6%	54.4%	14.4%	20.7%	0.9%	1264
Popayán	6.9%	58.4%	12.2%	21.8%	0.8%	2081
Putumayo	11.3%	49.1%	16.5%	21.8%	1.3%	3242
Quibdó	16.4%	42.9%	15.6%	21.4%	3.7%	1058
Quindío	10.5%	50.8%	14.3%	23.6%	0.9%	2173
Riohacha	13.0%	45.7%	14.8%	23.6%	2.9%	1684
Rionegro	8.2%	54.6%	11.7%	24.9%	0.5%	826
Risaralda	9.9%	50.9%	14.3%	23.6%	1.2%	2246
Sabaneta	7.2%	55.9%	13.1%	23.3%	0.5%	374
Sahagún	13.7%	44.4%	17.2%	23.0%	1.7%	954
San Andrés	15.0%	41.6%	13.9%	25.6%	4.0%	454
Santa Marta	11.9%	49.8%	14.4%	21.3%	2.6%	4140
Santander	9.9%	55.0%	12.6%	21.6%	0.9%	6457
Sincelejo	12.2%	49.0%	14.6%	22.5%	1.8%	2551
Soacha	8.2%	56.1%	11.6%	23.3%	0.8%	4149
Sogamoso	5.5%	57.7%	12.0%	24.6%	0.2%	1084
Soledad	11.5%	52.8%	13.1%	21.7%	0.9%	3900
Sucre	15.9%	41.6%	16.3%	24.0%	2.2%	5573
Tolima	11.9%	50.0%	15.8%	20.8%	1.6%	7453
Tuluá	8.4%	53.7%	14.0%	23.1%	0.9%	1616
Tumaco	14.5%	40.1%	15.7%	23.1%	6.6%	1864
Tunja	8.2%	56.0%	12.7%	22.5%	0.6%	1330
Turbo	15.4%	43.0%	15.2%	22.0%	4.3%	1474
Uribe	18.4%	30.8%	19.9%	27.1%	3.7%	402
Valle del Cauca	9.9%	52.2%	13.8%	22.7%	1.5%	7167
Valledupar	11.3%	51.4%	13.1%	21.4%	2.8%	3548
Vaupés	25.0%	75.0%	0.0%	0.0%	0.0%	4
Vichada	11.1%	44.8%	15.1%	24.2%	4.8%	458
Villavicencio	7.8%	55.2%	12.7%	23.4%	0.9%	4039
Yopal	8.7%	53.6%	12.3%	24.2%	1.1%	1316
Zipaquirá	7.3%	55.7%	12.3%	23.8%	0.9%	1028
Colombia	10.3%	51.6%	13.5%	22.7%	1.9%	365870

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

• **Pregunta 5.**

Unos niños realizaron un experimento con dos plantas iguales. Una de ellas se tapó con una caja que tenía un hueco y la otra no se cubrió, como se muestra en la siguiente figura:



La pregunta que motivó a los niños a realizar este experimento fue

- A. ¿Qué efecto tiene el aire sobre la vida de la planta?
- B. ¿Qué efecto tiene la luz sobre la vida de la planta?
- C. ¿Qué efecto tiene el agua sobre la vida de la planta?
- D. ¿Qué efecto tiene el suelo sobre la vida de la planta?

• **Estructura**

<b>Competencia</b>	Indagación
<b>Componente</b>	Entorno vivo
<b>Afirmación</b>	Comprender que a partir de la investigación científica se construyen explicaciones sobre el mundo natural.
<b>Nivel de desempeño</b>	Satisfactorio
<b>Respuesta Correcta</b>	B

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	21.0%	38.7%	18.8%	17.0%	4.6%	789
Antioquia	18.6%	48.5%	15.2%	16.2%	1.5%	21458
Apartadó	18.7%	47.8%	16.5%	15.6%	1.4%	1238
Arauca	16.0%	55.2%	12.7%	14.5%	1.6%	1996
Armenia	18.6%	59.6%	11.3%	9.9%	0.5%	2027
Atlántico	17.6%	46.9%	15.8%	16.3%	3.5%	4447
Barrancabermeja	16.4%	53.7%	14.4%	14.3%	1.1%	1765
Barranquilla	16.6%	59.3%	12.8%	10.3%	0.9%	8016
Bello	17.1%	62.2%	11.4%	8.8%	0.5%	3060
Bogotá, D.C.	14.7%	67.0%	9.2%	7.1%	2.0%	52960
Bolívar	19.8%	39.9%	17.5%	20.1%	2.7%	7919
Boyacá	15.0%	57.2%	12.7%	14.2%	0.8%	7143
Bucaramanga	13.2%	67.1%	11.5%	7.8%	0.4%	3993
Buenaventura	19.2%	42.2%	20.9%	14.9%	2.7%	2516
Buga	14.9%	59.5%	12.3%	9.0%	4.3%	860
Caldas	18.9%	51.8%	14.0%	14.4%	0.9%	4333
Cali	16.6%	61.4%	11.6%	8.7%	1.7%	14281
Caquetá	18.0%	45.2%	17.1%	18.1%	1.6%	2258
Cartagena	18.5%	53.0%	13.8%	13.0%	1.8%	8166
Cartago	19.5%	58.1%	12.1%	9.4%	0.9%	799
Casanare	15.7%	54.8%	12.8%	15.5%	1.1%	2134
Cauca	17.7%	45.8%	16.5%	17.5%	2.6%	8849
Cesar	16.2%	49.4%	15.8%	16.8%	1.9%	6079
Chocó	21.9%	30.1%	22.5%	20.7%	4.8%	2790
Chía	15.1%	69.1%	9.7%	5.5%	0.6%	969
Ciénaga	17.4%	47.5%	13.4%	18.1%	3.5%	1119
Cundinamarca	14.6%	61.7%	11.6%	11.3%	0.8%	11869
Córdoba	17.7%	43.3%	16.1%	21.2%	1.8%	9379
Cúcuta	13.8%	61.4%	14.1%	10.2%	0.5%	5493
Dosquebradas	16.1%	64.1%	10.7%	8.3%	0.8%	1247
Duitama	11.4%	72.7%	8.9%	6.6%	0.5%	1039
Envigado	11.3%	75.0%	8.0%	5.5%	0.2%	1221
Facatativá	13.4%	66.4%	10.6%	9.1%	0.5%	1066
Florencia	17.0%	50.7%	15.8%	16.0%	0.5%	1472
Floridablanca	12.8%	69.4%	9.4%	7.4%	1.0%	1845
Fusagasugá	13.2%	66.3%	11.5%	8.6%	0.3%	1057
Girardot	16.8%	57.7%	13.4%	10.8%	1.3%	778

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	13.2%	61.1%	14.4%	10.6%	0.8%	1009
Guainía	100.0%	0.0%	0.0%	0.0%	0.0%	1
Guaviare	18.3%	46.1%	14.6%	17.6%	3.5%	712
Huila	16.6%	51.0%	16.6%	15.0%	0.8%	6392
Ibagué	16.0%	61.8%	12.5%	9.0%	0.7%	3970
Ipiales	15.9%	65.3%	9.1%	9.3%	0.5%	1003
Itagüí	18.1%	59.1%	10.9%	10.3%	1.5%	1363
Jamundí	20.4%	54.1%	13.8%	10.7%	0.9%	867
La Guajira	18.6%	44.2%	17.8%	17.4%	2.0%	2473
Lorica	17.7%	42.9%	15.2%	21.4%	2.9%	1152
Magangué	17.4%	44.2%	15.1%	20.5%	2.8%	1221
Magdalena	18.9%	40.2%	16.8%	20.4%	3.7%	6259
Maicao	19.3%	42.6%	16.7%	16.7%	4.6%	1428
Malambo	16.2%	53.2%	14.1%	13.2%	3.3%	945
Manizales	18.3%	61.2%	10.4%	9.7%	0.5%	2328
Medellín	20.0%	55.9%	13.3%	9.8%	0.9%	16071
Meta	16.8%	52.6%	14.2%	14.6%	1.8%	3963
Montería	15.9%	53.3%	14.0%	15.7%	1.2%	3789
Mosquera	13.2%	66.9%	9.5%	9.5%	0.8%	880
Nariño	14.8%	54.0%	14.2%	14.5%	2.5%	7158
Neiva	15.9%	59.1%	12.1%	12.0%	0.8%	3001
Norte de Santander	14.5%	57.0%	14.2%	13.5%	0.9%	5716
Palmira	16.5%	63.1%	11.5%	7.7%	1.2%	2081
Pasto	14.4%	65.6%	10.3%	9.4%	0.3%	3132
Pereira	17.7%	58.9%	12.8%	9.7%	0.9%	3513
Piedecuesta	15.1%	60.8%	12.9%	10.8%	0.5%	1104
Pitalito	16.9%	56.6%	13.0%	12.9%	0.6%	1264
Popayán	16.1%	66.1%	8.3%	8.6%	1.0%	2081
Putumayo	16.3%	49.2%	14.7%	18.6%	1.1%	3242
Quibdó	19.1%	41.3%	20.8%	15.5%	3.3%	1058
Quindío	19.5%	53.3%	14.8%	11.9%	0.4%	2173
Riohacha	17.9%	47.3%	16.9%	15.6%	2.3%	1684
Rionegro	15.5%	62.5%	12.2%	9.6%	0.2%	826
Risaralda	18.4%	50.0%	15.3%	15.2%	1.1%	2246
Sabaneta	14.7%	65.8%	9.6%	9.4%	0.5%	374
Sahagún	16.2%	52.8%	14.3%	15.0%	1.7%	954
San Andrés	23.6%	47.1%	14.5%	11.0%	3.7%	454
Santa Marta	17.1%	53.7%	14.3%	13.0%	2.0%	4140
Santander	14.6%	57.2%	12.6%	14.8%	0.8%	6457
Sincelejo	14.2%	57.4%	12.6%	14.6%	1.2%	2551

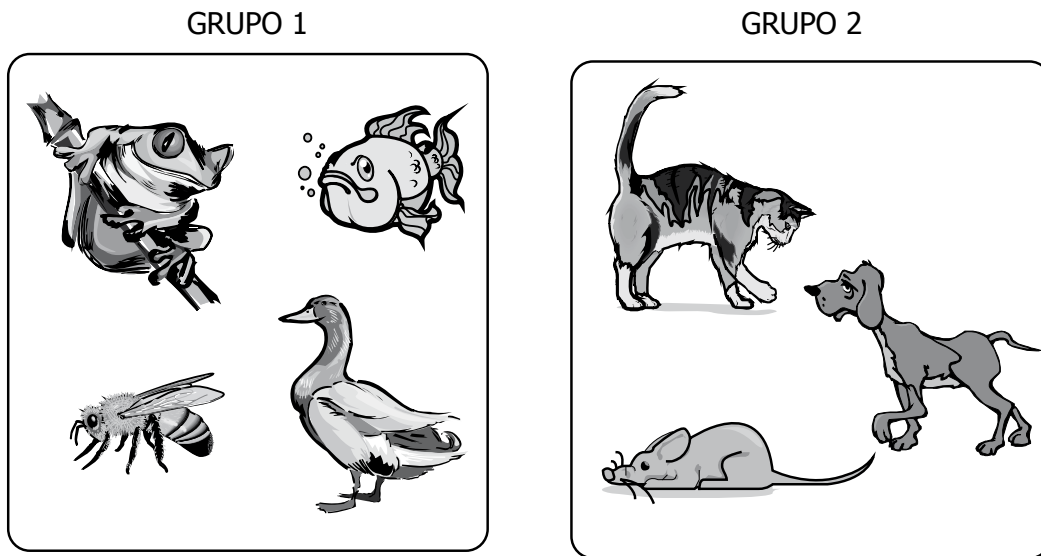
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	17.6%	61.3%	11.8%	8.7%	0.6%	4149
Sogamoso	12.6%	69.7%	8.6%	8.8%	0.3%	1084
Soledad	17.4%	58.3%	12.5%	11.1%	0.6%	3900
Sucre	17.7%	43.3%	17.1%	20.0%	1.8%	5573
Tolima	16.2%	50.3%	16.2%	16.1%	1.2%	7453
Tuluá	15.7%	61.3%	12.5%	9.8%	0.7%	1616
Tumaco	18.9%	34.1%	21.2%	20.4%	5.4%	1864
Tunja	14.7%	65.9%	10.5%	8.4%	0.5%	1330
Turbo	19.7%	34.9%	21.8%	20.3%	3.3%	1474
Uribe	19.4%	31.1%	26.4%	21.1%	2.0%	402
Valle del Cauca	18.3%	54.9%	13.4%	12.3%	1.1%	7167
Valledupar	16.6%	51.6%	14.2%	15.1%	2.5%	3548
Vaupés	50.0%	0.0%	25.0%	25.0%	0.0%	4
Vichada	18.1%	39.7%	15.1%	23.1%	3.9%	458
Villavicencio	15.3%	62.4%	12.5%	9.2%	0.7%	4039
Yopal	14.7%	62.1%	10.7%	11.7%	0.8%	1316
Zipaquirá	15.2%	65.6%	11.0%	8.0%	0.3%	1028
Colombia	16.7%	55.7%	13.4%	12.7%	1.6%	365870

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

• **Pregunta 6.**

Lucas observa los siguientes animales: rana, ratón, pez, pato, perro, gato, abeja. Él los clasifica a todos en los siguientes dos grupos



La característica que Lucas usó para clasificar los animales en estos dos grupos fue

- A. los que tienen células y los que no tienen.
- B. los que viven en el agua y los que viven en la tierra.
- C. los que son peligrosos y los que son amigables.
- D. los que se reproducen por huevos y los que son vivíparos.

• **Estructura**

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

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	10.6%	27.4%	12.4%	44.7%	4.8%	789
Antioquia	9.7%	26.5%	12.1%	50.1%	1.5%	21458
Apartadó	12.8%	28.7%	14.0%	43.3%	1.3%	1238
Arauca	8.3%	24.4%	11.1%	54.8%	1.4%	1996
Armenia	8.9%	22.8%	11.6%	56.1%	0.6%	2027
Atlántico	11.8%	26.5%	14.7%	43.2%	3.9%	4447
Barrancabermeja	11.6%	23.5%	12.2%	51.2%	1.5%	1765
Barranquilla	11.2%	25.1%	12.4%	50.1%	1.3%	8016
Bello	9.5%	22.6%	10.5%	56.8%	0.6%	3060
Bogotá, D.C.	6.6%	20.1%	9.0%	62.3%	2.1%	52960
Bolívar	13.1%	30.9%	16.4%	36.6%	3.1%	7919
Boyacá	7.8%	25.5%	11.0%	54.8%	0.9%	7143
Bucaramanga	7.4%	17.8%	9.4%	65.0%	0.5%	3993
Buenaventura	12.7%	28.2%	14.8%	41.5%	2.8%	2516
Buga	8.3%	23.5%	10.0%	54.2%	4.1%	860
Caldas	7.7%	26.7%	11.0%	53.7%	0.9%	4333
Cali	8.0%	23.2%	10.8%	56.3%	1.7%	14281
Caquetá	10.2%	27.5%	13.0%	47.5%	1.9%	2258
Cartagena	11.1%	27.7%	12.7%	46.7%	1.9%	8166
Cartago	9.0%	26.0%	10.9%	52.7%	1.4%	799
Casanare	8.7%	24.5%	9.9%	55.8%	1.2%	2134
Cauca	8.6%	28.3%	12.2%	48.2%	2.7%	8849
Cesar	10.7%	26.2%	12.1%	49.0%	2.0%	6079
Chocó	12.7%	31.6%	16.1%	34.5%	5.1%	2790
Chía	4.9%	19.3%	7.8%	67.6%	0.4%	969
Ciénaga	11.3%	27.5%	14.6%	43.1%	3.5%	1119
Cundinamarca	6.8%	23.4%	10.3%	58.6%	0.9%	11869
Córdoba	12.0%	29.9%	14.1%	42.0%	2.0%	9379
Cúcuta	8.9%	23.0%	11.1%	56.5%	0.6%	5493
Dosquebradas	7.9%	24.5%	10.5%	56.4%	0.8%	1247
Duitama	5.7%	18.2%	8.6%	67.4%	0.2%	1039
Envigado	5.6%	14.1%	7.4%	72.8%	0.2%	1221
Facatativá	6.7%	20.4%	9.5%	63.0%	0.5%	1066
Florencia	9.9%	27.3%	11.5%	50.4%	0.8%	1472
Floridablanca	8.7%	15.9%	8.5%	66.0%	0.9%	1845
Fusagasugá	7.3%	22.1%	9.4%	60.6%	0.6%	1057
Girardot	8.6%	30.3%	11.2%	48.5%	1.4%	778

Continúa en la siguiente página





ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	8.7%	23.8%	10.5%	55.8%	1.2%	1009
Guainía	100.0%	0.0%	0.0%	0.0%	0.0%	1
Guaviare	8.0%	25.7%	13.6%	48.7%	3.9%	712
Huila	8.7%	26.3%	10.9%	53.4%	0.7%	6392
Ibagué	7.2%	23.3%	11.1%	57.6%	0.8%	3970
Ipiales	4.3%	23.9%	10.4%	60.9%	0.5%	1003
Itagüí	11.2%	22.0%	10.8%	54.4%	1.5%	1363
Jamundí	9.3%	26.5%	13.7%	49.3%	1.2%	867
La Guajira	12.7%	31.3%	12.3%	41.3%	2.4%	2473
Lorica	12.8%	30.6%	16.0%	37.8%	2.8%	1152
Magangué	13.7%	30.0%	12.9%	41.0%	2.5%	1221
Magdalena	12.1%	30.4%	15.4%	38.1%	3.9%	6259
Maicao	12.3%	33.3%	14.2%	35.4%	4.7%	1428
Malambo	11.3%	28.0%	10.8%	46.9%	3.0%	945
Manizales	7.3%	24.9%	9.6%	57.6%	0.6%	2328
Medellín	10.8%	24.9%	12.9%	50.6%	0.9%	16071
Meta	8.7%	23.3%	11.9%	54.2%	1.9%	3963
Montería	11.5%	27.3%	12.4%	47.7%	1.1%	3789
Mosquera	5.5%	21.4%	9.5%	63.3%	0.3%	880
Nariño	6.9%	24.7%	10.0%	55.7%	2.7%	7158
Neiva	8.3%	27.4%	10.3%	53.2%	0.8%	3001
Norte de Santander	7.9%	23.8%	10.8%	56.4%	1.0%	5716
Palmira	8.0%	22.3%	9.2%	59.5%	1.1%	2081
Pasto	5.0%	24.6%	10.2%	59.8%	0.4%	3132
Pereira	8.1%	23.0%	10.8%	57.3%	0.8%	3513
Piedecuesta	7.4%	20.5%	11.3%	60.3%	0.5%	1104
Pitalito	8.3%	27.1%	12.3%	51.5%	0.8%	1264
Popayán	4.8%	23.8%	8.7%	61.7%	1.0%	2081
Putumayo	7.2%	25.4%	11.5%	54.8%	1.1%	3242
Quibdó	14.3%	28.4%	16.6%	37.1%	3.5%	1058
Quindío	9.3%	26.3%	13.0%	50.7%	0.6%	2173
Riohacha	12.2%	29.1%	12.4%	43.6%	2.7%	1684
Rionegro	5.2%	23.6%	8.5%	62.2%	0.5%	826
Risaralda	8.9%	25.4%	11.6%	52.8%	1.3%	2246
Sabaneta	8.3%	15.2%	8.0%	67.6%	0.8%	374
Sahagún	10.7%	24.0%	12.4%	51.3%	1.7%	954
San Andrés	12.8%	26.7%	13.9%	42.3%	4.4%	454
Santa Marta	11.1%	26.6%	13.8%	46.4%	2.1%	4140
Santander	7.4%	21.4%	9.9%	60.4%	0.8%	6457
Sincedejo	9.0%	25.5%	12.7%	51.3%	1.6%	2551

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	8.6%	25.8%	9.6%	55.4%	0.6%	4149
Sogamoso	5.9%	21.1%	9.0%	63.7%	0.3%	1084
Soledad	11.9%	26.7%	12.2%	48.4%	0.8%	3900
Sucre	12.9%	29.6%	15.0%	40.3%	2.3%	5573
Tolima	8.7%	28.4%	12.1%	49.4%	1.4%	7453
Tuluá	7.4%	22.9%	11.5%	57.4%	0.8%	1616
Tumaco	12.8%	29.1%	17.1%	35.0%	6.0%	1864
Tunja	6.4%	18.9%	10.8%	63.5%	0.5%	1330
Turbo	14.3%	31.5%	15.9%	34.3%	4.1%	1474
Uribe	11.4%	42.3%	16.4%	27.4%	2.5%	402
Valle del Cauca	8.4%	26.3%	12.0%	52.1%	1.2%	7167
Valledupar	10.6%	27.9%	12.6%	46.8%	2.2%	3548
Vaupés	0.0%	50.0%	25.0%	25.0%	0.0%	4
Vichada	8.3%	26.2%	10.7%	49.8%	5.0%	458
Villavicencio	7.4%	22.8%	9.7%	59.6%	0.5%	4039
Yopal	8.7%	21.0%	9.7%	59.7%	0.9%	1316
Zipaquirá	5.4%	22.1%	11.0%	61.1%	0.5%	1028
Colombia	9.0%	24.9%	11.5%	53.0%	1.7%	365870

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

• **Pregunta 7.**

Cuando Lucas camina alrededor del lago, cuenta las plantas que va observando y registra lo siguiente:

<b>Nombre de la planta</b>	<b>Número de plantas</b>
Palmera	10
Pino	7
Maíz	19
Girasol	5

Con los datos de la tabla, ¿cuál de las siguientes preguntas puede contestar Lucas?

- A.** ¿Cuáles plantas crecen más rápido cerca del lago?
- B.** ¿Cómo se nutren las plantas cerca del lago?
- C.** ¿Qué tipo de planta es más abundante cerca del lago?
- D.** ¿Qué tipo de planta hay cerca del lago?

• **Estructura**

<b>Competencia</b>	Indagación
<b>Componente</b>	Entorno vivo
<b>Afirmación</b>	Comprender que a partir de la investigación científica se construyen explicaciones sobre el mundo natural.
<b>Nivel de desempeño</b>	Avanzado
<b>Respuesta Correcta</b>	C

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	24.8%	18.5%	25.0%	26.1%	5.6%	789
Antioquia	23.2%	17.7%	35.6%	21.2%	2.3%	21458
Apartadó	24.8%	18.7%	30.2%	24.2%	2.1%	1238
Arauca	24.5%	17.4%	32.8%	23.0%	2.3%	1996
Armenia	21.9%	17.6%	37.3%	21.8%	1.4%	2027
Atlántico	23.8%	17.7%	31.1%	22.8%	4.5%	4447
Barrancabermeja	24.7%	17.5%	33.9%	22.2%	1.8%	1765
Barranquilla	23.8%	18.3%	34.2%	21.7%	2.0%	8016
Bello	23.4%	15.8%	39.2%	20.4%	1.1%	3060
Bogotá, D.C.	20.0%	15.6%	42.9%	18.9%	2.6%	52960
Bolívar	25.6%	19.1%	28.1%	23.0%	4.3%	7919
Boyacá	21.5%	18.1%	38.3%	20.5%	1.5%	7143
Bucaramanga	19.6%	14.8%	43.9%	20.9%	0.8%	3993
Buenaventura	23.7%	16.9%	31.6%	23.8%	3.9%	2516
Buga	21.3%	17.7%	35.6%	20.6%	4.9%	860
Caldas	20.9%	18.3%	39.1%	20.4%	1.4%	4333
Cali	21.5%	16.9%	37.9%	21.1%	2.5%	14281
Caquetá	25.6%	16.1%	32.8%	22.9%	2.6%	2258
Cartagena	23.4%	17.3%	35.1%	21.5%	2.7%	8166
Cartago	20.4%	17.3%	38.7%	22.0%	1.6%	799
Casanare	25.4%	19.7%	32.4%	20.6%	1.9%	2134
Cauca	24.7%	16.6%	34.2%	20.9%	3.5%	8849
Cesar	23.4%	18.2%	33.7%	22.1%	2.6%	6079
Chocó	26.6%	15.1%	30.3%	22.6%	5.3%	2790
Chía	20.1%	13.2%	46.9%	18.7%	1.1%	969
Ciénaga	24.7%	15.1%	31.7%	23.7%	4.8%	1119
Cundinamarca	20.6%	16.9%	40.9%	20.1%	1.4%	11869
Córdoba	24.5%	19.1%	31.5%	22.3%	2.6%	9379
Cúcuta	24.0%	17.1%	35.4%	22.4%	1.1%	5493
Dosquebradas	20.7%	16.1%	40.4%	21.1%	1.7%	1247
Duitama	19.6%	11.9%	51.4%	16.4%	0.7%	1039
Envigado	18.2%	12.5%	53.4%	15.0%	0.9%	1221
Facatativá	20.2%	15.3%	42.8%	20.5%	1.2%	1066
Florencia	24.0%	16.8%	34.0%	24.0%	1.1%	1472
Floridablanca	18.2%	15.8%	44.6%	20.1%	1.3%	1845
Fusagasugá	20.2%	19.6%	39.8%	19.7%	0.7%	1057
Girardot	20.3%	18.0%	32.8%	26.3%	2.6%	778

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	21.5%	19.7%	36.4%	21.3%	1.1%	1009
Guainía	100.0%	0.0%	0.0%	0.0%	0.0%	1
Guaviare	24.0%	14.5%	33.4%	23.9%	4.2%	712
Huila	23.3%	18.4%	34.8%	22.0%	1.5%	6392
Ibagué	21.4%	16.4%	40.6%	20.3%	1.4%	3970
Ipiales	20.2%	12.8%	44.3%	21.0%	1.7%	1003
Itagüí	20.0%	16.6%	42.4%	19.1%	1.9%	1363
Jamundí	24.0%	18.0%	35.2%	20.5%	2.3%	867
La Guajira	26.7%	17.2%	30.1%	22.7%	3.2%	2473
Lorica	21.0%	19.2%	28.8%	27.4%	3.6%	1152
Magangué	25.6%	17.5%	27.4%	26.1%	3.4%	1221
Magdalena	25.7%	17.3%	29.1%	22.9%	5.1%	6259
Maicao	25.0%	17.1%	27.7%	23.5%	6.7%	1428
Malambo	22.8%	17.0%	34.4%	22.5%	3.3%	945
Manizales	20.2%	14.6%	43.0%	21.1%	1.1%	2328
Medellín	22.4%	17.9%	37.6%	20.5%	1.5%	16071
Meta	23.0%	17.9%	34.1%	22.2%	2.9%	3963
Montería	23.3%	19.2%	33.4%	22.1%	2.0%	3789
Mosquera	20.9%	18.1%	38.8%	21.3%	1.0%	880
Nariño	22.1%	15.3%	38.8%	20.6%	3.2%	7158
Neiva	23.9%	18.4%	35.2%	20.9%	1.6%	3001
Norte de Santander	23.8%	16.3%	37.5%	20.9%	1.6%	5716
Palmira	20.9%	16.7%	40.9%	19.8%	1.7%	2081
Pasto	20.8%	15.4%	44.3%	18.7%	0.7%	3132
Pereira	22.2%	17.1%	39.4%	19.8%	1.5%	3513
Piedecuesta	22.3%	16.3%	38.7%	21.5%	1.3%	1104
Pitalito	21.0%	19.9%	35.8%	21.6%	1.7%	1264
Popayán	20.8%	16.0%	43.0%	19.1%	1.2%	2081
Putumayo	23.1%	18.2%	34.9%	21.5%	2.3%	3242
Quibdó	22.1%	17.4%	31.1%	25.4%	4.0%	1058
Quindío	21.8%	20.6%	34.1%	22.5%	1.1%	2173
Riohacha	24.6%	16.9%	31.4%	23.9%	3.2%	1684
Rionegro	22.0%	14.4%	44.4%	18.2%	1.0%	826
Risaralda	23.1%	18.4%	35.0%	21.7%	1.8%	2246
Sabaneta	19.0%	16.0%	44.1%	20.1%	0.8%	374
Sahagún	25.5%	17.2%	34.6%	20.2%	2.5%	954
San Andrés	21.6%	18.3%	30.0%	25.1%	5.1%	454
Santa Marta	24.5%	17.5%	31.1%	23.9%	3.1%	4140
Santander	21.2%	17.0%	39.5%	20.8%	1.5%	6457
Sincedejo	21.7%	18.9%	35.4%	21.7%	2.3%	2551

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	22.4%	18.9%	37.3%	20.1%	1.2%	4149
Sogamoso	21.1%	14.6%	46.4%	16.8%	1.1%	1084
Soledad	25.8%	18.0%	33.0%	21.5%	1.7%	3900
Sucre	23.8%	18.9%	30.3%	24.3%	2.8%	5573
Tolima	23.0%	18.7%	34.9%	21.4%	2.0%	7453
Tuluá	22.0%	15.8%	40.2%	20.5%	1.4%	1616
Tumaco	26.2%	18.9%	25.8%	22.3%	6.8%	1864
Tunja	18.7%	16.2%	47.1%	16.6%	1.3%	1330
Turbo	23.1%	17.5%	28.2%	25.8%	5.4%	1474
Uribe	30.8%	17.9%	23.6%	23.6%	4.0%	402
Valle del Cauca	21.4%	17.8%	36.9%	21.8%	2.1%	7167
Valledupar	26.4%	16.9%	31.3%	22.2%	3.2%	3548
Vaupés	25.0%	25.0%	0.0%	50.0%	0.0%	4
Vichada	23.8%	13.8%	30.8%	25.5%	6.1%	458
Villavicencio	21.6%	18.2%	38.7%	20.1%	1.4%	4039
Yopal	20.7%	20.1%	37.6%	20.1%	1.4%	1316
Zipaquirá	18.8%	16.6%	45.6%	18.0%	1.0%	1028
Colombia	22.5%	17.2%	36.9%	21.1%	2.4%	365870

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

• **Pregunta 8.**

Fernando quiere reciclar la basura que produce su colegio. La mejor forma de reciclar la basura que produce el colegio es separándola

- A.** de acuerdo con el tamaño.
- B.** según la función que cumple.
- C.** en materiales renovables y no renovables.
- D.** de acuerdo con el material del que está hecha.

• **Estructura**

<b>Competencia</b>	Uso comprensivo del conocimiento científico
<b>Componente</b>	CTS
<b>Afirmación</b>	Valorar y comprender la necesidad de seguir hábitos para mantener la salud y el entorno.
<b>Nivel de desempeño</b>	Avanzado
<b>Respuesta Correcta</b>	D

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

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	15.2%	16.6%	29.5%	34.9%	3.8%	789
Antioquia	9.7%	11.9%	41.0%	36.1%	1.3%	21458
Apartadó	12.7%	13.2%	38.0%	34.7%	1.4%	1238
Arauca	10.3%	11.6%	38.8%	37.7%	1.7%	1996
Armenia	8.8%	11.9%	35.2%	43.6%	0.4%	2027
Atlántico	15.7%	15.3%	27.8%	38.0%	3.3%	4447
Barrancabermeja	10.8%	11.3%	36.9%	40.4%	0.7%	1765
Barranquilla	11.0%	12.2%	32.6%	43.4%	0.8%	8016
Bello	7.6%	9.3%	44.2%	38.4%	0.5%	3060
Bogotá, D.C.	5.2%	8.4%	38.9%	45.4%	2.1%	52960
Bolívar	18.8%	18.2%	25.7%	34.2%	3.0%	7919
Boyacá	8.5%	11.7%	41.8%	37.2%	0.7%	7143
Bucaramanga	6.3%	8.6%	36.1%	48.8%	0.3%	3993
Buenaventura	13.5%	15.2%	33.0%	35.9%	2.4%	2516
Buga	8.3%	9.7%	38.1%	40.0%	4.0%	860
Caldas	7.5%	12.0%	36.1%	43.6%	0.8%	4333
Cali	7.4%	10.3%	41.0%	39.6%	1.7%	14281

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## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Caquetá	14.8%	16.7%	31.6%	35.3%	1.6%	2258
Cartagena	13.3%	12.9%	30.5%	41.3%	1.9%	8166
Cartago	10.0%	10.4%	36.5%	42.1%	1.0%	799
Casanare	10.5%	12.0%	39.6%	37.0%	0.8%	2134
Cauca	12.6%	14.4%	32.3%	38.3%	2.4%	8849
Cesar	13.4%	13.1%	32.0%	39.9%	1.6%	6079
Chocó	19.6%	16.6%	27.0%	32.1%	4.8%	2790
Chía	4.2%	9.7%	37.7%	47.5%	0.9%	969
Ciénaga	13.4%	14.5%	32.3%	36.0%	3.8%	1119
Cundinamarca	7.1%	10.4%	38.0%	43.7%	0.9%	11869
Córdoba	15.0%	17.0%	30.5%	35.7%	1.8%	9379
Cúcuta	8.3%	10.9%	37.8%	42.6%	0.4%	5493
Dosquebradas	6.2%	8.5%	35.7%	49.0%	0.6%	1247
Duitama	4.9%	7.5%	37.0%	50.3%	0.3%	1039
Envigado	4.8%	6.1%	47.3%	41.8%	0.0%	1221
Facatativá	6.2%	9.1%	40.9%	43.6%	0.2%	1066
Florencia	10.9%	11.5%	35.1%	41.6%	0.9%	1472
Floridablanca	5.3%	7.9%	35.3%	51.1%	0.4%	1845
Fusagasugá	6.1%	9.6%	40.2%	43.9%	0.3%	1057
Girardot	12.1%	11.8%	34.2%	40.1%	1.8%	778
Girón	8.8%	8.7%	40.4%	41.3%	0.7%	1009
Guainía	0.0%	0.0%	0.0%	100.0%	0.0%	1
Guaviare	12.1%	12.2%	32.2%	39.9%	3.7%	712
Huila	9.9%	12.8%	35.7%	40.8%	0.7%	6392
Ibagué	7.2%	10.7%	35.7%	45.8%	0.7%	3970
Ipiales	7.0%	8.8%	44.5%	39.0%	0.8%	1003
Itagüí	9.6%	9.8%	45.6%	33.5%	1.5%	1363
Jamundí	11.2%	10.4%	37.8%	39.2%	1.4%	867
La Guajira	14.7%	15.7%	29.8%	37.7%	2.1%	2473
Lorica	18.9%	16.5%	26.7%	36.2%	1.6%	1152
Magangué	15.4%	16.7%	27.6%	37.8%	2.5%	1221
Magdalena	16.9%	17.2%	26.6%	35.5%	3.7%	6259
Maicao	17.7%	15.3%	26.8%	35.9%	4.3%	1428
Malambo	12.4%	12.5%	29.5%	43.3%	2.3%	945
Manizales	5.4%	9.8%	38.7%	45.6%	0.5%	2328
Medellín	9.9%	11.1%	42.6%	35.5%	0.9%	16071
Meta	9.6%	12.3%	37.2%	39.1%	1.8%	3963
Montería	12.4%	14.5%	32.6%	39.7%	0.8%	3789
Mosquera	4.3%	8.2%	38.9%	48.2%	0.5%	880
Nariño	9.8%	12.6%	35.2%	39.8%	2.5%	7158

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Neiva	9.4%	11.7%	34.2%	44.0%	0.8%	3001
Norte de Santander	8.9%	12.4%	38.2%	39.8%	0.8%	5716
Palmira	6.4%	9.9%	39.1%	43.6%	1.0%	2081
Pasto	6.1%	9.5%	38.2%	45.9%	0.3%	3132
Pereira	7.5%	9.0%	36.0%	46.5%	1.0%	3513
Piedecuesta	6.8%	10.1%	42.6%	40.1%	0.4%	1104
Pitalito	8.2%	12.1%	38.4%	40.6%	0.7%	1264
Popayán	5.7%	9.3%	39.6%	44.7%	0.6%	2081
Putumayo	10.2%	13.4%	39.9%	35.4%	1.1%	3242
Quibdó	16.4%	14.3%	31.1%	35.4%	2.8%	1058
Quindío	8.9%	11.7%	40.2%	38.4%	0.7%	2173
Riohacha	14.9%	15.1%	32.2%	35.8%	2.0%	1684
Rionegro	5.4%	7.9%	50.6%	35.8%	0.2%	826
Risaralda	8.1%	10.8%	38.0%	42.1%	1.1%	2246
Sabaneta	7.0%	9.1%	46.5%	37.2%	0.3%	374
Sahagún	14.0%	17.4%	31.4%	36.1%	1.0%	954
San Andrés	15.2%	15.2%	25.6%	42.3%	1.8%	454
Santa Marta	11.7%	11.7%	33.5%	41.5%	1.7%	4140
Santander	8.0%	11.0%	38.7%	41.6%	0.7%	6457
Sincelejo	10.9%	12.9%	35.4%	39.5%	1.2%	2551
Soacha	6.6%	9.9%	37.4%	45.4%	0.7%	4149
Sogamoso	5.8%	7.4%	43.5%	43.1%	0.3%	1084
Soledad	10.9%	12.3%	34.2%	41.9%	0.8%	3900
Sucre	17.0%	17.8%	26.2%	36.9%	2.0%	5573
Tolima	10.8%	13.7%	34.0%	40.2%	1.2%	7453
Tuluá	7.2%	8.9%	41.2%	42.1%	0.7%	1616
Tumaco	17.0%	14.5%	31.4%	31.5%	5.6%	1864
Tunja	6.5%	9.0%	37.4%	46.7%	0.3%	1330
Turbo	19.7%	17.2%	24.4%	35.5%	3.2%	1474
Uribe	16.2%	22.4%	28.9%	30.8%	1.7%	402
Valle del Cauca	8.8%	11.3%	38.2%	40.5%	1.1%	7167
Valledupar	11.2%	11.4%	36.1%	38.9%	2.3%	3548
Vaupés	25.0%	0.0%	75.0%	0.0%	0.0%	4
Vichada	11.1%	18.1%	30.6%	38.9%	1.3%	458
Villavicencio	7.6%	9.2%	37.8%	44.8%	0.6%	4039
Yopal	7.1%	8.3%	39.3%	44.4%	0.9%	1316
Zipaquirá	7.1%	9.0%	37.5%	45.9%	0.4%	1028
Colombia	9.7%	11.8%	36.4%	40.6%	1.5%	365870

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

• **Pregunta 9.**

Este dibujo muestra cuatro niños en diferentes situaciones.



Teniendo en cuenta la situación en que se encuentra cada niño, ¿cuál de las siguientes preguntas puede ser respondida por todos estos niños?

- A. ¿Esa sopa tiene sal?
- B. ¿De qué color son esas flores?
- C. ¿Qué hora marca el reloj?
- D. ¿La ropa está mojada o seca?

• **Estructura**

<b>Competencia</b>	Indagación
<b>Componente</b>	Entorno vivo
<b>Afirmación</b>	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.
<b>Nivel de desempeño</b>	Avanzado
<b>Respuesta Correcta</b>	D

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	18.3%	22.2%	26.1%	28.1%	5.3%	789
Antioquia	17.5%	21.9%	21.3%	37.7%	1.6%	21458
Apartadó	18.3%	26.2%	21.6%	32.1%	1.9%	1238
Arauca	16.5%	22.8%	21.5%	37.2%	2.0%	1996
Armenia	18.4%	22.6%	19.0%	39.1%	0.8%	2027
Atlántico	17.6%	23.8%	22.3%	32.3%	4.0%	4447
Barrancabermeja	18.2%	23.7%	21.2%	35.5%	1.4%	1765
Barranquilla	17.0%	23.0%	20.3%	38.2%	1.4%	8016
Bello	16.8%	22.4%	18.9%	41.4%	0.6%	3060
Bogotá, D.C.	15.4%	19.6%	17.7%	44.9%	2.3%	52960
Bolívar	18.0%	25.3%	24.2%	28.8%	3.6%	7919
Boyacá	15.5%	22.6%	23.6%	37.2%	1.1%	7143
Bucaramanga	16.0%	18.7%	17.6%	47.2%	0.6%	3993
Buenaventura	17.3%	24.0%	21.2%	34.8%	2.7%	2516
Buga	18.3%	21.6%	18.8%	36.3%	5.0%	860
Caldas	16.9%	21.7%	19.7%	40.5%	1.2%	4333
Cali	15.6%	21.6%	18.6%	42.0%	2.3%	14281
Caquetá	17.1%	21.7%	23.7%	35.7%	1.9%	2258
Cartagena	17.1%	23.8%	20.4%	36.6%	2.2%	8166
Cartago	19.8%	23.3%	20.7%	34.7%	1.6%	799
Casanare	16.6%	22.7%	21.6%	37.4%	1.6%	2134
Cauca	16.6%	20.2%	21.7%	38.9%	2.6%	8849
Cesar	16.2%	22.9%	21.0%	37.8%	2.1%	6079
Chocó	20.8%	21.5%	22.5%	29.7%	5.6%	2790
Chía	14.9%	17.8%	17.8%	48.6%	1.0%	969
Ciénaga	15.9%	24.1%	19.1%	37.4%	3.4%	1119
Cundinamarca	15.0%	21.0%	20.2%	42.8%	1.1%	11869
Córdoba	17.6%	24.2%	23.4%	32.6%	2.2%	9379
Cúcuta	16.5%	23.4%	19.8%	39.4%	0.9%	5493
Dosquebradas	18.8%	22.6%	17.8%	39.6%	1.1%	1247
Duitama	13.0%	18.5%	14.2%	53.8%	0.5%	1039
Envigado	14.9%	16.2%	15.1%	53.6%	0.2%	1221
Facatativá	16.0%	19.8%	15.0%	48.4%	0.8%	1066
Florencia	17.0%	26.0%	22.9%	33.3%	0.9%	1472
Floridablanca	14.4%	17.2%	16.7%	50.7%	1.0%	1845
Fusagasugá	14.3%	21.9%	18.2%	44.9%	0.8%	1057
Girardot	18.8%	24.0%	21.3%	33.8%	2.1%	778

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## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	18.3%	23.4%	19.4%	38.2%	0.7%	1009
Guainía	0.0%	0.0%	100.0%	0.0%	0.0%	1
Guaviare	17.0%	23.3%	23.2%	31.9%	4.6%	712
Huila	15.4%	22.7%	21.9%	39.1%	0.9%	6392
Ibagué	15.7%	20.7%	20.6%	41.8%	1.2%	3970
Ipiales	15.9%	19.9%	19.9%	43.9%	0.4%	1003
Itagüí	18.0%	22.1%	18.5%	39.7%	1.8%	1363
Jamundí	17.3%	23.4%	22.6%	35.4%	1.3%	867
La Guajira	18.5%	23.2%	24.3%	31.7%	2.3%	2473
Lorica	19.6%	24.6%	22.4%	30.9%	2.5%	1152
Magangué	16.9%	26.9%	23.9%	30.0%	2.4%	1221
Magdalena	18.5%	24.2%	21.8%	31.6%	3.9%	6259
Maicao	18.6%	27.9%	20.5%	28.2%	4.7%	1428
Malambo	16.9%	21.8%	23.1%	35.1%	3.1%	945
Manizales	17.5%	21.4%	18.2%	42.1%	0.8%	2328
Medellín	18.6%	23.9%	19.6%	36.7%	1.2%	16071
Meta	16.5%	22.5%	22.4%	36.4%	2.3%	3963
Montería	17.2%	24.0%	22.5%	35.0%	1.3%	3789
Mosquera	16.6%	21.1%	20.0%	41.7%	0.6%	880
Nariño	14.6%	18.1%	21.0%	43.8%	2.5%	7158
Neiva	16.8%	23.9%	19.8%	38.6%	0.9%	3001
Norte de Santander	16.0%	21.7%	21.2%	40.0%	1.1%	5716
Palmira	18.6%	19.3%	17.5%	43.1%	1.5%	2081
Pasto	15.0%	20.2%	18.6%	45.6%	0.6%	3132
Pereira	16.1%	20.7%	18.7%	43.2%	1.4%	3513
Piedecuesta	16.7%	20.7%	20.1%	41.5%	1.1%	1104
Pitalito	16.7%	21.8%	22.8%	37.7%	1.0%	1264
Popayán	14.5%	16.6%	18.9%	48.9%	1.2%	2081
Putumayo	14.9%	22.4%	25.3%	36.0%	1.5%	3242
Quibdó	20.9%	24.5%	24.1%	27.6%	2.9%	1058
Quindío	19.0%	23.5%	20.3%	36.4%	0.9%	2173
Riohacha	17.3%	25.1%	23.6%	31.4%	2.7%	1684
Rionegro	17.6%	17.6%	18.0%	46.6%	0.2%	826
Risaralda	17.5%	21.7%	21.1%	38.2%	1.3%	2246
Sabaneta	17.4%	17.9%	19.8%	44.1%	0.8%	374
Sahagún	17.4%	23.7%	25.6%	32.3%	1.0%	954
San Andrés	17.2%	27.8%	22.9%	30.0%	2.2%	454
Santa Marta	18.2%	23.6%	19.9%	36.2%	2.1%	4140
Santander	15.4%	20.8%	20.7%	42.2%	1.0%	6457
Sincelejo	15.8%	24.0%	20.7%	38.1%	1.4%	2551

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	15.6%	20.8%	19.2%	43.5%	1.0%	4149
Sogamoso	13.4%	20.6%	19.6%	45.8%	0.7%	1084
Soledad	17.3%	23.7%	19.6%	38.3%	1.2%	3900
Sucre	18.8%	23.4%	24.1%	31.4%	2.3%	5573
Tolima	15.8%	22.6%	22.9%	37.3%	1.4%	7453
Tuluá	16.2%	20.5%	18.5%	43.6%	1.2%	1616
Tumaco	19.4%	23.4%	22.0%	29.7%	5.5%	1864
Tunja	14.1%	21.1%	19.2%	45.0%	0.6%	1330
Turbo	18.9%	23.4%	25.3%	27.7%	4.7%	1474
Uribe	19.7%	27.4%	27.6%	23.9%	1.5%	402
Valle del Cauca	17.0%	22.8%	20.5%	38.2%	1.5%	7167
Valledupar	16.0%	23.4%	20.7%	37.2%	2.7%	3548
Vaupés	25.0%	0.0%	25.0%	50.0%	0.0%	4
Vichada	23.4%	21.8%	21.2%	31.7%	2.0%	458
Villavicencio	17.4%	21.7%	19.0%	41.0%	0.8%	4039
Yopal	15.4%	22.0%	20.1%	41.2%	1.3%	1316
Zipaquirá	15.3%	20.1%	19.0%	44.9%	0.7%	1028
Colombia	16.6%	21.9%	20.4%	39.1%	1.9%	365870

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

## • Pregunta 10.

Cuando se queman juegos pirotécnicos a base de pólvora se producen luces de colores. Estas luces se producen por

- A. un cambio químico de los componentes de la pólvora.
- B. un cambio físico de los componentes de la pólvora.
- C. la incidencia de la luz sobre los componentes de la pólvora.
- D. la mezcla del aire con los componentes de la pólvora.

## • Estructura

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

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	40.1%	14.6%	18.4%	22.6%	4.4%	789
Antioquia	46.3%	16.5%	17.1%	18.7%	1.4%	21458
Apartadó	43.0%	18.6%	19.2%	17.9%	1.4%	1238
Arauca	43.8%	18.9%	18.6%	17.2%	1.5%	1996
Armenia	49.6%	17.9%	15.1%	16.9%	0.5%	2027
Atlántico	39.6%	18.0%	19.6%	19.2%	3.7%	4447
Barrancabermeja	47.1%	16.0%	17.8%	17.8%	1.3%	1765
Barranquilla	47.0%	17.8%	16.6%	17.4%	1.2%	8016
Bello	51.6%	15.5%	16.4%	15.7%	0.8%	3060
Bogotá, D.C.	48.6%	17.8%	14.7%	16.7%	2.2%	52960
Bolívar	38.8%	18.0%	20.1%	20.2%	3.0%	7919
Boyacá	42.7%	20.3%	19.3%	16.9%	0.8%	7143
Bucaramanga	50.0%	16.9%	16.8%	15.8%	0.7%	3993
Buenaventura	43.5%	16.8%	16.3%	20.5%	3.0%	2516
Buga	49.7%	16.0%	13.8%	15.8%	4.7%	860
Caldas	46.4%	16.2%	17.1%	19.3%	1.0%	4333
Cali	50.2%	16.4%	14.9%	16.5%	1.9%	14281
Caquetá	41.5%	19.3%	17.5%	20.1%	1.7%	2258

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Cartagena	46.1%	18.2%	17.3%	16.4%	1.9%	8166
Cartago	49.3%	17.0%	16.4%	16.0%	1.3%	799
Casanare	44.3%	17.3%	18.7%	18.5%	1.3%	2134
Cauca	42.1%	17.0%	18.3%	20.0%	2.5%	8849
Cesar	42.7%	17.7%	18.9%	18.8%	2.0%	6079
Chocó	37.1%	15.8%	18.7%	23.3%	5.1%	2790
Chía	49.5%	19.4%	15.3%	14.8%	1.0%	969
Ciénaga	39.3%	15.6%	18.1%	22.5%	4.4%	1119
Cundinamarca	46.7%	18.0%	17.7%	16.7%	0.9%	11869
Córdoba	40.5%	17.7%	18.6%	21.2%	2.0%	9379
Cúcuta	48.8%	18.3%	16.8%	15.6%	0.6%	5493
Dosquebradas	50.3%	15.5%	14.8%	18.7%	0.8%	1247
Duitama	49.4%	21.2%	16.5%	12.7%	0.3%	1039
Envigado	51.4%	18.7%	16.3%	13.4%	0.2%	1221
Facatativá	50.8%	19.0%	13.9%	15.9%	0.4%	1066
Florencia	43.2%	17.8%	17.2%	20.8%	1.0%	1472
Floridablanca	52.4%	15.9%	15.7%	15.4%	0.5%	1845
Fusagasugá	50.0%	16.7%	16.4%	16.6%	0.4%	1057
Girardot	48.1%	14.4%	13.9%	21.9%	1.8%	778
Girón	45.1%	16.4%	19.1%	18.7%	0.7%	1009
Guainía	0.0%	0.0%	0.0%	100.0%	0.0%	1
Guaviare	42.0%	15.2%	17.7%	21.1%	4.1%	712
Huila	45.0%	17.2%	18.4%	18.6%	0.8%	6392
Ibagué	51.0%	17.0%	15.0%	16.2%	0.7%	3970
Ipiales	46.1%	20.0%	16.7%	16.7%	0.6%	1003
Itagüí	51.7%	17.2%	15.1%	14.5%	1.4%	1363
Jamundí	48.4%	16.4%	15.7%	17.8%	1.7%	867
La Guajira	41.9%	17.5%	20.5%	17.8%	2.3%	2473
Lorica	38.5%	19.8%	19.6%	20.1%	2.0%	1152
Magangué	42.1%	17.8%	20.1%	17.9%	2.1%	1221
Magdalena	37.5%	17.2%	19.7%	21.3%	4.3%	6259
Maicao	41.3%	17.9%	16.5%	19.5%	4.8%	1428
Malambo	43.9%	17.8%	17.1%	18.2%	3.0%	945
Manizales	49.8%	15.5%	16.3%	17.8%	0.5%	2328
Medellín	48.5%	17.2%	16.3%	17.1%	0.9%	16071
Meta	45.4%	18.6%	15.5%	18.3%	2.1%	3963
Montería	44.6%	17.9%	17.7%	18.5%	1.3%	3789
Mosquera	48.9%	18.9%	16.1%	15.9%	0.2%	880
Nariño	45.3%	16.7%	17.8%	17.6%	2.6%	7158
Neiva	45.5%	18.8%	16.8%	18.0%	1.0%	3001

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

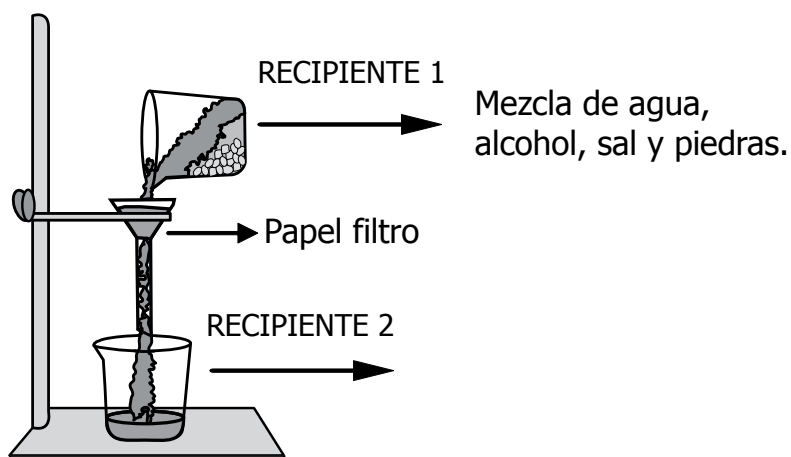
ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Norte de Santander	46.1%	19.2%	18.3%	15.6%	0.9%	5716
Palmira	51.0%	17.9%	13.0%	16.9%	1.2%	2081
Pasto	49.6%	18.4%	16.1%	15.5%	0.4%	3132
Pereira	49.5%	15.3%	15.1%	19.2%	0.9%	3513
Piedecuesta	45.7%	18.7%	18.3%	16.9%	0.5%	1104
Pitalito	44.6%	17.2%	17.8%	19.4%	1.0%	1264
Popayán	52.4%	15.0%	15.2%	16.8%	0.6%	2081
Putumayo	42.8%	17.8%	18.0%	20.0%	1.3%	3242
Quibdó	37.1%	17.8%	19.8%	21.7%	3.6%	1058
Quindío	48.7%	15.4%	16.6%	18.5%	0.9%	2173
Riohacha	40.7%	19.1%	18.6%	19.6%	2.0%	1684
Rionegro	49.9%	17.3%	16.9%	15.5%	0.4%	826
Risaralda	46.5%	15.8%	16.9%	19.7%	1.1%	2246
Sabaneta	53.7%	15.5%	16.0%	14.4%	0.3%	374
Sahagún	43.9%	16.9%	18.3%	19.5%	1.4%	954
San Andrés	39.6%	21.1%	18.9%	18.5%	1.8%	454
Santa Marta	44.5%	17.2%	17.2%	19.3%	1.8%	4140
Santander	46.4%	17.9%	18.5%	16.5%	0.8%	6457
Sincelejo	44.6%	18.6%	17.0%	18.5%	1.4%	2551
Soacha	49.7%	16.7%	16.0%	16.8%	0.8%	4149
Sogamoso	48.6%	21.1%	16.2%	13.7%	0.3%	1084
Soledad	48.2%	18.2%	17.3%	15.4%	1.0%	3900
Sucre	39.6%	19.1%	19.1%	20.2%	2.0%	5573
Tolima	44.8%	17.5%	17.8%	18.6%	1.3%	7453
Tuluá	51.8%	17.1%	14.7%	15.6%	0.8%	1616
Tumaco	38.9%	16.8%	17.0%	21.5%	5.8%	1864
Tunja	46.8%	21.9%	13.8%	17.1%	0.5%	1330
Turbo	38.3%	16.4%	18.8%	21.8%	4.6%	1474
Uribe	33.1%	16.9%	23.4%	25.1%	1.5%	402
Valle del Cauca	47.1%	16.9%	16.6%	18.2%	1.2%	7167
Valledupar	44.8%	18.0%	16.9%	17.3%	2.9%	3548
Vaupés	75.0%	25.0%	0.0%	0.0%	0.0%	4
Vichada	44.8%	17.9%	17.5%	17.5%	2.4%	458
Villavicencio	49.2%	17.6%	15.9%	16.6%	0.6%	4039
Yopal	45.2%	18.2%	17.6%	18.2%	0.8%	1316
Zipacquirá	46.7%	18.0%	18.8%	16.1%	0.5%	1028
Colombia	46.0%	17.5%	16.9%	17.8%	1.7%	365870

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



• **Pregunta 11.**

Luis preparó una mezcla con agua, alcohol, sal y piedras pequeñas (recipiente 1). Luego, agitó y separó la mezcla con el montaje que se muestra en el siguiente dibujo.



De acuerdo con el método de separación que Luis empleó, es correcto afirmar que el recipiente 2 contiene

- A. agua y piedras, porque el alcohol y la sal quedan en el filtro.
- B. alcohol y agua, porque sólo los líquidos pueden pasar a través del filtro.
- C. sal y agua, porque el alcohol y las piedras quedan en el filtro.
- D. agua, sal y alcohol, porque sólo las piedras quedan retenidas en el filtro.

• **Estructura**

<b>Competencia</b>	Explicación de fenómenos
<b>Componente</b>	Entorno físico
<b>Afirmación</b>	Comprender que existe una gran diversidad de materiales que se pueden diferenciar a partir de sus propiedades.
<b>Nivel de desempeño</b>	Satisfactorio
<b>Respuesta Correcta</b>	D

Continúa en la siguiente página

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	14.8%	26.4%	16.2%	37.9%	4.7%	789
Antioquia	14.2%	25.7%	12.1%	46.5%	1.5%	21458
Apartadó	16.6%	29.5%	14.9%	37.5%	1.6%	1238
Arauca	12.1%	27.5%	13.3%	45.4%	1.8%	1996
Armenia	13.9%	26.5%	12.1%	46.7%	0.7%	2027
Atlántico	16.6%	27.2%	15.2%	36.9%	4.1%	4447
Barrancabermeja	14.9%	28.1%	12.5%	43.0%	1.5%	1765
Barranquilla	14.1%	26.5%	12.3%	45.7%	1.4%	8016
Bello	13.5%	24.6%	11.1%	50.0%	0.8%	3060
Bogotá, D.C.	11.1%	26.9%	10.3%	49.4%	2.2%	52960
Bolívar	18.0%	26.2%	18.1%	34.1%	3.6%	7919
Boyacá	12.6%	27.8%	12.7%	46.1%	0.9%	7143
Bucaramanga	10.7%	27.0%	10.2%	51.5%	0.6%	3993
Buenaventura	15.6%	23.9%	14.0%	43.4%	3.1%	2516
Buga	12.6%	25.0%	10.9%	47.2%	4.3%	860
Caldas	12.5%	25.6%	11.4%	49.5%	1.0%	4333
Cali	12.0%	25.4%	11.0%	49.5%	2.1%	14281
Caquetá	15.8%	28.6%	14.0%	39.9%	1.7%	2258
Cartagena	16.3%	26.7%	13.7%	41.0%	2.4%	8166
Cartago	12.6%	24.4%	11.5%	50.1%	1.4%	799
Casanare	12.5%	28.9%	13.8%	43.5%	1.3%	2134
Cauca	14.7%	25.9%	13.3%	43.5%	2.6%	8849
Cesar	15.5%	25.0%	13.3%	44.2%	2.0%	6079
Chocó	16.7%	26.2%	16.8%	34.8%	5.4%	2790
Chía	9.7%	28.0%	8.4%	52.6%	1.3%	969
Ciénaga	16.2%	27.5%	13.6%	39.3%	3.4%	1119
Cundinamarca	11.3%	27.8%	11.5%	48.4%	0.9%	11869
Córdoba	15.9%	27.8%	15.2%	39.0%	2.1%	9379
Cúcuta	13.4%	25.3%	12.3%	48.3%	0.8%	5493
Dosquebradas	12.9%	26.2%	10.7%	49.4%	0.8%	1247
Duitama	8.9%	29.9%	11.8%	49.1%	0.3%	1039
Envigado	9.1%	26.1%	8.7%	56.0%	0.1%	1221
Facatativá	10.5%	26.3%	10.6%	52.3%	0.4%	1066
Florencia	14.6%	27.2%	14.7%	42.5%	0.9%	1472
Floridablanca	9.5%	28.2%	10.4%	51.1%	0.8%	1845
Fusagasugá	13.2%	26.6%	11.4%	47.9%	0.9%	1057
Girardot	17.2%	26.6%	12.5%	42.3%	1.4%	778

Continúa en la siguiente página



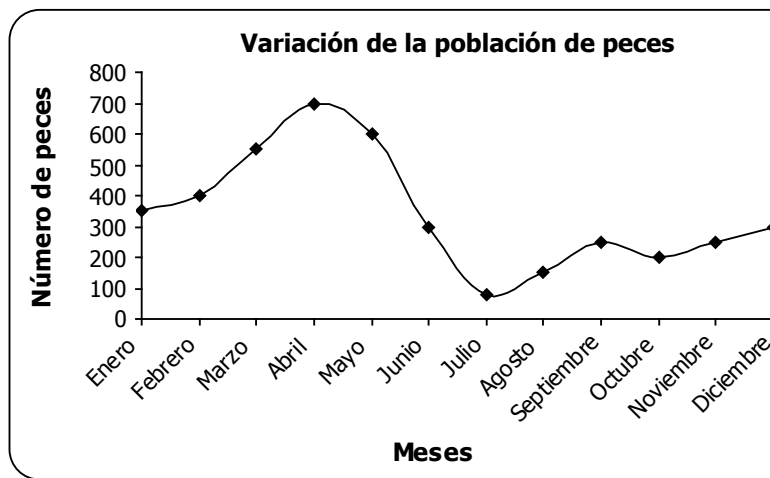
ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	13.5%	26.8%	13.1%	45.9%	0.8%	1009
Guainía	100.0%	0.0%	0.0%	0.0%	0.0%	1
Guaviare	14.5%	28.9%	11.4%	40.9%	4.4%	712
Huila	13.2%	27.2%	12.7%	46.1%	0.9%	6392
Ibagué	13.1%	25.6%	11.0%	49.3%	0.9%	3970
Ipiales	10.9%	26.9%	11.9%	49.8%	0.6%	1003
Itagüí	12.7%	28.8%	12.7%	44.2%	1.5%	1363
Jamundí	13.4%	25.4%	13.5%	46.3%	1.5%	867
La Guajira	17.0%	27.7%	14.3%	38.3%	2.8%	2473
Lorica	17.1%	29.3%	16.9%	34.5%	2.2%	1152
Magangué	19.2%	23.7%	15.8%	38.7%	2.6%	1221
Magdalena	17.8%	25.1%	15.4%	37.4%	4.2%	6259
Maicao	15.8%	26.8%	15.9%	36.1%	5.5%	1428
Malambo	13.9%	26.1%	11.3%	45.9%	2.8%	945
Manizales	11.4%	28.0%	9.4%	50.7%	0.5%	2328
Medellín	14.3%	26.2%	13.8%	44.6%	1.1%	16071
Meta	14.1%	26.0%	12.9%	44.7%	2.3%	3963
Montería	14.9%	27.7%	15.5%	40.6%	1.2%	3789
Mosquera	10.2%	26.9%	8.9%	53.6%	0.3%	880
Nariño	11.0%	26.2%	10.1%	49.8%	2.8%	7158
Neiva	14.7%	25.8%	12.6%	45.8%	1.1%	3001
Norte de Santander	13.5%	25.4%	12.5%	47.6%	1.0%	5716
Palmira	11.1%	26.6%	9.8%	51.0%	1.4%	2081
Pasto	10.7%	29.7%	10.0%	49.1%	0.5%	3132
Pereira	12.4%	25.5%	10.8%	50.2%	1.1%	3513
Piedecuesta	12.9%	27.8%	11.3%	47.3%	0.7%	1104
Pitalito	13.5%	29.5%	11.4%	44.5%	1.1%	1264
Popayán	10.2%	27.6%	9.9%	51.4%	0.9%	2081
Putumayo	14.0%	27.0%	14.3%	43.4%	1.4%	3242
Quibdó	17.6%	28.1%	14.7%	35.7%	3.9%	1058
Quindío	13.5%	27.1%	11.6%	46.8%	1.0%	2173
Riohacha	17.8%	26.1%	14.8%	39.1%	2.1%	1684
Rionegro	11.1%	28.2%	9.6%	50.6%	0.5%	826
Risaralda	12.7%	24.8%	12.3%	48.9%	1.2%	2246
Sabaneta	10.4%	30.2%	8.8%	50.0%	0.5%	374
Sahagún	14.5%	26.8%	15.0%	42.8%	0.9%	954
San Andrés	18.3%	31.9%	15.0%	32.8%	2.0%	454
Santa Marta	15.8%	25.7%	13.1%	43.2%	2.2%	4140
Santander	11.5%	27.1%	11.5%	48.9%	1.0%	6457
Sincedejo	14.3%	28.1%	14.2%	42.1%	1.4%	2551

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	12.4%	26.2%	11.6%	48.7%	1.1%	4149
Sogamoso	9.1%	30.0%	8.1%	52.3%	0.5%	1084
Soledad	14.3%	26.5%	12.6%	45.6%	1.1%	3900
Sucre	17.6%	26.9%	15.4%	37.5%	2.5%	5573
Tolima	13.7%	26.1%	13.0%	45.8%	1.5%	7453
Tuluá	10.4%	26.5%	9.4%	52.5%	1.2%	1616
Tumaco	16.5%	24.9%	15.8%	36.7%	6.0%	1864
Tunja	11.7%	30.4%	12.3%	45.3%	0.4%	1330
Turbo	18.2%	26.3%	17.4%	33.1%	5.0%	1474
Uribe	18.7%	29.9%	19.4%	28.9%	3.2%	402
Valle del Cauca	12.9%	25.8%	11.8%	48.1%	1.4%	7167
Valledupar	15.4%	24.8%	13.2%	43.6%	3.0%	3548
Vaupés	25.0%	25.0%	0.0%	50.0%	0.0%	4
Vichada	14.4%	28.4%	15.7%	39.1%	2.4%	458
Villavicencio	11.7%	27.2%	11.9%	48.6%	0.6%	4039
Yopal	11.9%	27.4%	11.9%	48.0%	0.8%	1316
Zipaquirá	11.1%	24.2%	10.5%	53.7%	0.5%	1028
Colombia	13.5%	26.6%	12.4%	45.7%	1.8%	365870

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

• **Pregunta 12.**

El río que atraviesa un municipio mantiene una población de peces que varía de acuerdo con la temporada del año, como se muestra en la gráfica.



De acuerdo con la gráfica, la mejor temporada para pescar es entre

- A. enero y febrero.
- B. abril y mayo.
- C. julio y agosto.
- D. septiembre y octubre.

• **Estructura**

<b>Competencia</b>	Indagación
<b>Componente</b>	Entorno vivo
<b>Afirmación</b>	Observar y relacionar patrones en los datos para evaluar las predicciones.
<b>Nivel de desempeño</b>	Satisfactorio
<b>Respuesta Correcta</b>	B

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	16.3%	42.5%	21.9%	13.9%	5.3%	789
Antioquia	14.0%	50.4%	21.1%	12.7%	1.8%	21458
Apartadó	14.8%	46.4%	23.8%	12.8%	2.1%	1238
Arauca	10.9%	57.5%	19.6%	10.1%	1.9%	1996
Armenia	9.9%	61.4%	18.6%	9.2%	0.8%	2027
Atlántico	13.4%	45.1%	20.1%	16.7%	4.6%	4447
Barrancabermeja	12.2%	55.2%	20.7%	10.3%	1.5%	1765
Barranquilla	12.2%	56.4%	20.4%	9.4%	1.6%	8016
Bello	12.4%	57.7%	20.7%	8.5%	0.8%	3060
Bogotá, D.C.	7.3%	68.4%	16.1%	5.8%	2.3%	52960
Bolívar	16.9%	37.7%	23.4%	17.9%	4.2%	7919
Boyacá	10.4%	55.2%	23.0%	10.1%	1.2%	7143
Bucaramanga	7.5%	70.8%	15.0%	6.0%	0.7%	3993
Buenaventura	16.9%	47.3%	19.4%	13.0%	3.4%	2516
Buga	11.0%	55.2%	19.9%	9.4%	4.4%	860
Caldas	10.5%	56.3%	20.7%	11.0%	1.5%	4333
Cali	10.5%	63.1%	16.5%	7.6%	2.3%	14281
Caquetá	15.8%	48.5%	21.0%	12.6%	2.0%	2258
Cartagena	14.0%	51.5%	20.0%	11.9%	2.6%	8166
Cartago	8.6%	59.1%	17.5%	12.9%	1.9%	799
Casanare	12.1%	52.2%	21.8%	11.7%	2.2%	2134
Cauca	12.7%	49.3%	20.5%	14.4%	3.1%	8849
Cesar	15.4%	47.7%	20.3%	14.1%	2.5%	6079
Chocó	19.3%	34.9%	21.4%	18.1%	6.3%	2790
Chía	5.9%	73.3%	14.4%	4.9%	1.5%	969
Ciénaga	14.8%	46.6%	19.8%	14.9%	3.8%	1119
Cundinamarca	8.8%	62.8%	19.1%	8.1%	1.2%	11869
Córdoba	16.3%	42.2%	22.2%	16.7%	2.5%	9379
Cúcuta	10.7%	61.5%	18.1%	8.7%	1.1%	5493
Dosquebradas	9.2%	63.8%	18.2%	7.5%	1.3%	1247
Duitama	6.6%	74.6%	14.1%	4.0%	0.6%	1039
Envigado	8.5%	73.1%	12.4%	5.5%	0.4%	1221
Facatativá	7.0%	71.0%	16.5%	5.1%	0.4%	1066
Florencia	13.3%	52.0%	22.6%	11.1%	1.0%	1472
Floridablanca	7.8%	69.3%	16.4%	5.7%	0.8%	1845
Fusagasugá	9.6%	66.0%	17.3%	6.1%	1.0%	1057
Girardot	13.1%	54.5%	20.2%	10.4%	1.8%	778

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	10.5%	59.6%	19.2%	9.6%	1.1%	1009
Guainía	100.0%	0.0%	0.0%	0.0%	0.0%	1
Guaviare	13.8%	47.6%	23.2%	11.4%	4.1%	712
Huila	11.7%	54.7%	20.8%	11.6%	1.3%	6392
Ibagué	8.8%	65.7%	17.7%	6.4%	1.4%	3970
Ipiales	8.6%	62.4%	19.3%	8.6%	1.1%	1003
Itagüí	13.1%	58.4%	17.7%	9.2%	1.6%	1363
Jamundí	12.3%	56.7%	17.8%	11.3%	1.8%	867
La Guajira	15.8%	44.2%	21.9%	14.9%	3.2%	2473
Lorica	14.8%	42.3%	22.3%	17.4%	3.2%	1152
Magangué	16.8%	42.8%	21.6%	15.5%	3.4%	1221
Magdalena	18.8%	36.8%	22.4%	17.2%	4.9%	6259
Maicao	12.3%	42.0%	23.2%	16.1%	6.4%	1428
Malambo	13.4%	51.9%	20.6%	10.5%	3.6%	945
Manizales	8.7%	65.4%	16.9%	8.2%	0.8%	2328
Medellín	12.1%	56.6%	20.1%	9.8%	1.4%	16071
Meta	12.6%	53.1%	21.4%	10.4%	2.5%	3963
Montería	13.7%	49.9%	21.1%	13.6%	1.6%	3789
Mosquera	6.4%	69.7%	18.5%	5.1%	0.3%	880
Nariño	11.1%	57.0%	18.9%	10.1%	2.9%	7158
Neiva	11.0%	61.5%	17.6%	8.8%	1.1%	3001
Norte de Santander	11.9%	56.7%	19.9%	10.2%	1.2%	5716
Palmira	8.8%	67.0%	15.7%	7.1%	1.4%	2081
Pasto	8.3%	66.0%	17.6%	7.2%	0.8%	3132
Pereira	9.9%	61.0%	18.8%	9.1%	1.2%	3513
Piedecuesta	8.7%	64.1%	19.0%	7.5%	0.6%	1104
Pitalito	10.3%	58.2%	20.3%	9.8%	1.4%	1264
Popayán	8.6%	65.1%	17.9%	7.5%	0.8%	2081
Putumayo	10.7%	52.4%	23.1%	12.0%	1.7%	3242
Quibdó	17.6%	39.3%	21.5%	16.6%	5.0%	1058
Quindío	11.5%	57.3%	19.7%	10.5%	1.0%	2173
Riohacha	16.5%	44.5%	20.6%	15.7%	2.7%	1684
Rionegro	8.1%	64.4%	20.0%	6.7%	0.8%	826
Risaralda	12.3%	52.7%	20.0%	13.8%	1.2%	2246
Sabaneta	7.8%	66.8%	19.5%	5.1%	0.8%	374
Sahagún	11.3%	48.6%	23.9%	15.1%	1.0%	954
San Andrés	17.2%	46.3%	20.5%	13.0%	3.1%	454
Santa Marta	12.9%	52.1%	20.9%	11.7%	2.3%	4140
Santander	10.6%	58.8%	20.2%	9.3%	1.0%	6457
Sincedejo	12.8%	55.0%	20.3%	10.0%	1.9%	2551

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## GRADO 5° - CIENCIAS NATURALES

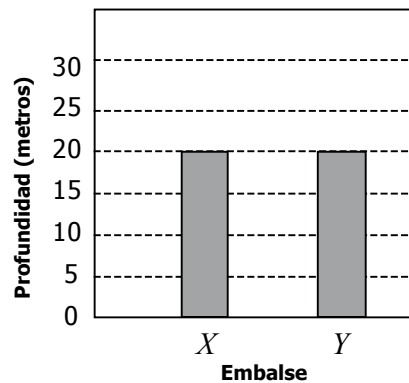
ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	9.5%	64.6%	18.2%	6.3%	1.3%	4149
Sogamoso	5.5%	72.6%	16.2%	5.2%	0.5%	1084
Soledad	12.2%	55.7%	19.3%	11.1%	1.7%	3900
Sucre	16.4%	41.5%	22.7%	16.6%	2.8%	5573
Tolima	11.7%	54.3%	21.7%	10.8%	1.6%	7453
Tuluá	9.3%	64.5%	18.2%	6.8%	1.2%	1616
Tumaco	17.8%	35.2%	23.9%	15.7%	7.3%	1864
Tunja	7.5%	69.2%	15.9%	6.8%	0.5%	1330
Turbo	18.5%	35.2%	23.4%	17.8%	5.0%	1474
Uribe	11.2%	44.3%	23.1%	18.2%	3.2%	402
Valle del Cauca	11.1%	57.3%	20.8%	9.1%	1.6%	7167
Valledupar	12.9%	51.4%	20.0%	12.5%	3.2%	3548
Vaupés	25.0%	25.0%	50.0%	0.0%	0.0%	4
Vichada	18.3%	43.7%	20.5%	14.4%	3.1%	458
Villavicencio	9.3%	65.3%	16.9%	7.7%	0.8%	4039
Yopal	9.3%	63.1%	17.9%	8.7%	0.9%	1316
Zipaquirá	7.2%	65.8%	19.0%	7.0%	1.1%	1028
Colombia	11.5%	56.6%	19.5%	10.3%	2.1%	365870

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

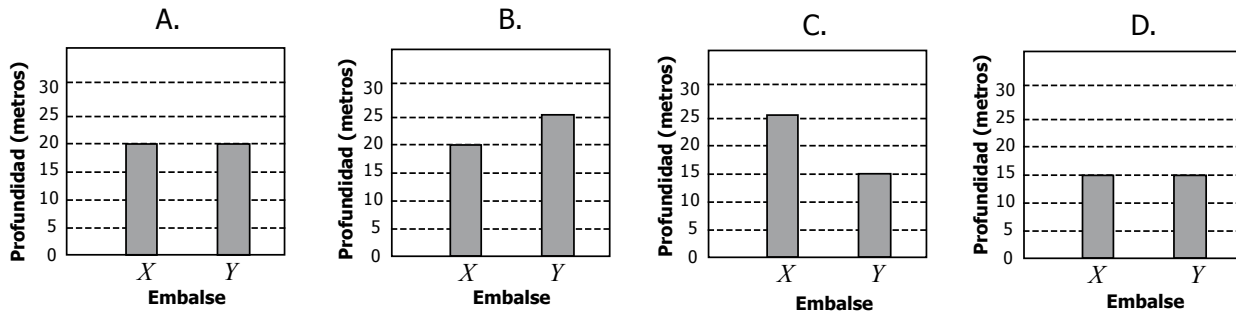


• **Pregunta 13.**

La lluvia afecta el nivel de agua en un embalse, el cual se mide en metros de profundidad. La siguiente gráfica muestra el nivel de agua de los embalses  $X$  y  $Y$  en enero.



Si durante el año llueve constantemente sobre el embalse  $X$  y no llueve sobre el embalse  $Y$ , la gráfica que mejor representa los niveles de agua en los embalses en diciembre es



• **Estructura**

<b>Competencia</b>	Indagación
<b>Componente</b>	Entorno físico
<b>Afirmación</b>	Observar y relacionar patrones en los datos para evaluar las predicciones.
<b>Nivel de desempeño</b>	Satisfactorio
<b>Respuesta Correcta</b>	C

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	22.8%	23.2%	31.4%	17.4%	5.2%	789
Antioquia	18.3%	19.5%	46.2%	14.0%	2.1%	21458
Apartadó	22.2%	20.3%	40.2%	14.7%	2.6%	1238
Arauca	20.2%	18.0%	46.5%	12.6%	2.7%	1996
Armenia	17.6%	16.3%	52.6%	12.3%	1.2%	2027
Atlántico	23.9%	18.6%	39.2%	13.3%	5.0%	4447
Barrancabermeja	23.6%	16.8%	45.8%	11.9%	1.9%	1765
Barranquilla	21.4%	17.5%	47.2%	11.7%	2.2%	8016
Bello	16.3%	17.3%	53.3%	11.9%	1.2%	3060
Bogotá, D.C.	14.4%	13.8%	59.5%	9.6%	2.8%	52960
Bolívar	24.5%	20.2%	33.0%	17.9%	4.4%	7919
Boyacá	19.3%	17.3%	48.3%	13.4%	1.7%	7143
Bucaramanga	14.2%	14.5%	60.5%	9.7%	1.1%	3993
Buenaventura	23.7%	19.6%	39.2%	13.7%	3.7%	2516
Buga	14.3%	17.8%	52.7%	10.1%	5.1%	860
Caldas	18.6%	18.8%	49.2%	11.6%	1.7%	4333
Cali	18.0%	15.0%	54.0%	10.3%	2.7%	14281
Caquetá	19.7%	21.4%	41.3%	14.7%	2.9%	2258
Cartagena	21.1%	17.5%	44.8%	13.3%	3.3%	8166
Cartago	16.6%	16.3%	53.6%	11.1%	2.4%	799
Casanare	19.3%	18.8%	44.5%	15.1%	2.3%	2134
Cauca	18.7%	19.7%	43.8%	13.9%	3.8%	8849
Cesar	21.1%	19.9%	42.7%	13.2%	3.1%	6079
Chocó	22.8%	21.8%	31.4%	17.6%	6.5%	2790
Chía	13.1%	12.7%	63.2%	9.4%	1.7%	969
Ciénaga	24.7%	20.0%	39.5%	11.1%	4.7%	1119
Cundinamarca	16.9%	15.9%	55.0%	10.6%	1.7%	11869
Córdoba	22.5%	21.1%	38.0%	15.4%	3.0%	9379
Cúcuta	19.0%	16.7%	51.3%	11.5%	1.6%	5493
Dosquebradas	15.2%	16.4%	54.8%	12.0%	1.5%	1247
Duitama	12.7%	13.5%	66.1%	6.5%	1.2%	1039
Envigado	11.5%	13.6%	64.4%	9.7%	0.8%	1221
Facatativá	16.2%	12.9%	60.4%	9.6%	0.8%	1066
Florencia	19.5%	19.8%	45.4%	13.9%	1.4%	1472
Floridablanca	13.3%	13.6%	63.5%	8.3%	1.3%	1845
Fusagasugá	17.5%	12.3%	58.4%	10.7%	1.1%	1057
Girardot	20.4%	18.3%	47.9%	10.4%	3.0%	778

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	20.3%	15.6%	51.7%	11.5%	0.9%	1009
Guainía	100.0%	0.0%	0.0%	0.0%	0.0%	1
Guaviare	18.4%	21.1%	41.4%	13.8%	5.3%	712
Huila	18.8%	19.8%	47.4%	12.1%	1.9%	6392
Ibagué	16.5%	16.0%	55.1%	10.7%	1.7%	3970
Ipiales	16.1%	16.7%	53.9%	11.0%	2.4%	1003
Itagüí	16.0%	17.5%	48.2%	15.7%	2.6%	1363
Jamundí	19.7%	16.1%	48.3%	12.7%	3.1%	867
La Guajira	21.2%	19.8%	39.5%	15.8%	3.6%	2473
Lorica	24.3%	19.4%	38.5%	14.1%	3.6%	1152
Magangué	23.8%	22.2%	35.1%	15.1%	3.8%	1221
Magdalena	23.6%	21.0%	35.1%	14.9%	5.3%	6259
Maicao	23.5%	19.1%	34.4%	16.2%	6.8%	1428
Malambo	21.2%	17.0%	45.4%	12.3%	4.1%	945
Manizales	15.0%	15.5%	58.5%	9.8%	1.2%	2328
Medellín	18.0%	17.3%	49.5%	13.3%	1.8%	16071
Meta	19.5%	18.5%	45.3%	13.4%	3.3%	3963
Montería	20.8%	18.4%	43.5%	15.1%	2.1%	3789
Mosquera	13.2%	13.9%	61.9%	10.6%	0.5%	880
Nariño	17.6%	18.3%	50.1%	10.5%	3.6%	7158
Neiva	20.5%	17.2%	50.5%	10.0%	1.7%	3001
Norte de Santander	18.9%	17.8%	49.4%	12.3%	1.6%	5716
Palmira	16.5%	15.8%	56.0%	9.7%	2.0%	2081
Pasto	14.7%	15.9%	58.1%	10.2%	1.1%	3132
Pereira	15.7%	15.9%	56.0%	10.8%	1.6%	3513
Piedecuesta	19.8%	13.3%	55.9%	9.8%	1.2%	1104
Pitalito	22.6%	16.5%	46.7%	12.0%	2.1%	1264
Popayán	15.7%	15.4%	56.7%	10.2%	2.0%	2081
Putumayo	19.6%	20.0%	45.3%	12.9%	2.1%	3242
Quibdó	23.2%	20.4%	36.7%	14.9%	4.8%	1058
Quindío	19.0%	17.9%	48.0%	13.5%	1.7%	2173
Riohacha	23.4%	21.0%	37.0%	14.8%	3.8%	1684
Rionegro	15.6%	14.9%	59.0%	8.7%	1.8%	826
Risaralda	16.6%	18.5%	49.5%	13.6%	1.8%	2246
Sabaneta	14.4%	17.1%	59.4%	8.6%	0.5%	374
Sahagún	21.0%	19.7%	42.7%	15.0%	1.7%	954
San Andrés	29.3%	17.8%	35.5%	14.8%	2.6%	454
Santa Marta	20.1%	19.4%	45.6%	12.2%	2.7%	4140
Santander	17.9%	17.4%	52.1%	11.0%	1.7%	6457
Sincedejo	23.6%	16.9%	44.4%	12.9%	2.2%	2551

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	16.6%	15.2%	56.2%	10.6%	1.4%	4149
Sogamoso	13.9%	15.1%	61.4%	9.0%	0.5%	1084
Soledad	20.0%	17.8%	48.5%	11.8%	1.9%	3900
Sucre	24.3%	20.7%	36.2%	16.0%	2.8%	5573
Tolima	20.6%	19.0%	45.1%	13.0%	2.3%	7453
Tuluá	19.1%	14.4%	54.5%	10.1%	2.0%	1616
Tumaco	23.0%	21.4%	31.7%	15.9%	8.0%	1864
Tunja	16.1%	14.4%	58.0%	10.3%	1.3%	1330
Turbo	25.3%	23.6%	28.1%	17.0%	6.0%	1474
Uribe	24.6%	24.9%	28.1%	19.4%	3.0%	402
Valle del Cauca	20.3%	18.2%	47.8%	11.8%	1.8%	7167
Valledupar	20.3%	19.0%	44.8%	12.7%	3.3%	3548
Vaupés	0.0%	25.0%	50.0%	25.0%	0.0%	4
Vichada	16.4%	22.3%	40.4%	17.2%	3.7%	458
Villavicencio	18.2%	15.1%	54.9%	10.6%	1.1%	4039
Yopal	18.5%	17.2%	50.6%	12.2%	1.4%	1316
Zipaquirá	12.6%	16.0%	58.8%	10.9%	1.8%	1028
Colombia	18.6%	17.4%	49.2%	12.2%	2.6%	365870

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

### • Pregunta 14.

\*Se sabe que cuando el polo Norte terrestre está iluminado directamente por el Sol el polo Sur no. Esta afirmación demuestra que cuando en el Hemisferio Norte es verano en el Hemisferio Sur es

- A. primavera.
- B. verano.
- C. otoño.
- D. invierno.

\* -Pregunta modificada respecto a su versión original.

### • Estructura

<b>Competencia</b>	Uso comprensivo del conocimiento científico
<b>Componente</b>	Entorno físico
<b>Afirmación</b>	Reconocer los principales elementos y características de la Tierra y del espacio.
<b>Nivel de desempeño</b>	Satisfactorio
<b>Respuesta Correcta</b>	D

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

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	22.4%	21.7%	15.6%	35.2%	5.1%	789
Antioquia	21.1%	18.2%	13.8%	45.2%	1.8%	21458
Apartadó	26.9%	21.3%	15.9%	34.4%	1.5%	1238
Arauca	20.0%	18.2%	14.7%	45.4%	1.7%	1996
Armenia	20.3%	14.7%	15.8%	48.4%	0.7%	2027
Atlántico	27.3%	18.3%	16.9%	33.2%	4.3%	4447
Barrancabermeja	27.2%	15.5%	20.4%	35.4%	1.5%	1765
Barranquilla	27.1%	15.9%	18.2%	37.7%	1.1%	8016
Bello	21.8%	13.4%	14.0%	50.0%	0.8%	3060
Bogotá, D.C.	19.4%	11.7%	15.4%	51.3%	2.3%	52960
Bolívar	26.6%	21.9%	16.5%	31.4%	3.5%	7919
Boyacá	19.6%	17.3%	15.7%	46.4%	1.0%	7143
Bucaramanga	21.8%	11.7%	18.1%	47.6%	0.7%	3993
Buenaventura	26.0%	19.4%	14.6%	36.7%	3.2%	2516
Buga	20.3%	13.4%	13.7%	48.5%	4.1%	860
Caldas	19.8%	16.5%	14.0%	48.6%	1.1%	4333
Cali	20.6%	14.0%	14.4%	48.9%	2.1%	14281

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Caquetá	20.6%	22.0%	15.1%	40.6%	1.7%	2258
Cartagena	27.0%	16.8%	17.1%	36.7%	2.3%	8166
Cartago	21.7%	16.4%	14.4%	46.1%	1.5%	799
Casanare	21.0%	19.9%	15.4%	42.2%	1.5%	2134
Cauca	17.4%	20.2%	11.6%	47.9%	2.9%	8849
Cesar	23.3%	19.0%	16.7%	39.1%	2.0%	6079
Chocó	24.1%	21.9%	13.4%	34.8%	5.8%	2790
Chía	17.6%	10.6%	15.0%	55.7%	1.0%	969
Ciénaga	24.4%	18.5%	16.2%	36.8%	4.1%	1119
Cundinamarca	18.6%	14.4%	16.7%	49.1%	1.1%	11869
Córdoba	23.2%	21.4%	14.8%	38.2%	2.4%	9379
Cúcuta	25.6%	14.6%	19.3%	39.8%	0.8%	5493
Dosquebradas	19.8%	13.2%	13.9%	52.3%	0.9%	1247
Duitama	18.1%	10.9%	15.7%	55.0%	0.4%	1039
Envigado	14.3%	9.8%	12.4%	63.3%	0.2%	1221
Facatativá	22.0%	12.7%	16.6%	48.5%	0.2%	1066
Florencia	23.4%	20.6%	15.0%	39.9%	1.1%	1472
Floridablanca	21.4%	11.1%	17.0%	49.3%	1.2%	1845
Fusagasugá	21.1%	14.1%	17.1%	46.8%	0.9%	1057
Girardot	23.4%	17.6%	17.9%	39.5%	1.7%	778
Girón	25.6%	15.0%	19.6%	39.0%	0.8%	1009
Guainía	0.0%	100.0%	0.0%	0.0%	0.0%	1
Guaviare	21.1%	21.8%	16.2%	36.5%	4.5%	712
Huila	20.5%	18.1%	16.0%	44.5%	0.8%	6392
Ibagué	20.8%	14.3%	15.3%	48.5%	1.0%	3970
Ipiales	21.6%	11.8%	18.7%	47.1%	0.8%	1003
Itagüí	21.3%	16.4%	15.0%	45.7%	1.5%	1363
Jamundí	20.0%	17.5%	13.8%	47.2%	1.5%	867
La Guajira	27.2%	19.4%	19.5%	31.1%	2.8%	2473
Lorica	24.1%	22.4%	16.1%	34.4%	3.0%	1152
Magangué	26.7%	19.2%	16.2%	35.0%	2.9%	1221
Magdalena	26.4%	20.3%	15.8%	33.0%	4.5%	6259
Maicao	28.2%	21.6%	15.4%	29.2%	5.5%	1428
Malambo	26.0%	15.8%	17.7%	37.8%	2.8%	945
Manizales	18.0%	12.7%	15.2%	53.3%	0.8%	2328
Medellín	23.0%	15.7%	15.3%	44.7%	1.2%	16071
Meta	20.2%	19.2%	15.2%	43.1%	2.4%	3963
Montería	24.4%	18.4%	16.4%	39.0%	1.6%	3789
Mosquera	20.7%	9.9%	18.2%	50.8%	0.5%	880
Nariño	16.3%	16.4%	11.7%	52.8%	2.8%	7158

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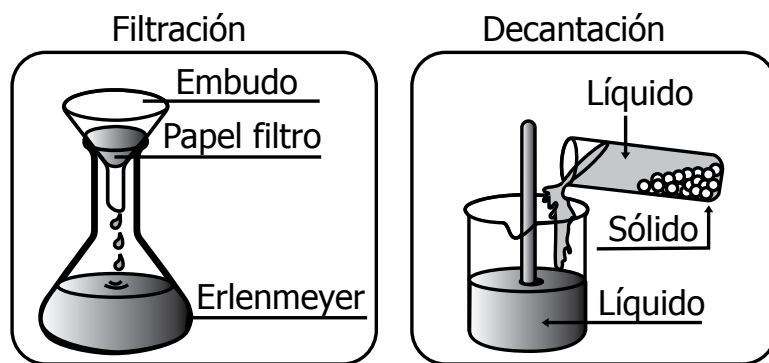


ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Neiva	25.6%	15.6%	18.1%	39.6%	1.1%	3001
Norte de Santander	21.6%	16.0%	15.3%	46.0%	1.0%	5716
Palmira	21.5%	10.7%	17.0%	49.5%	1.2%	2081
Pasto	20.2%	13.2%	15.8%	50.2%	0.6%	3132
Pereira	20.2%	13.3%	15.5%	49.9%	1.1%	3513
Piedecuesta	22.3%	12.5%	19.0%	45.7%	0.5%	1104
Pitalito	21.9%	18.5%	16.6%	42.2%	0.8%	1264
Popayán	13.7%	12.6%	13.4%	59.3%	0.9%	2081
Putumayo	20.2%	21.1%	15.2%	42.0%	1.4%	3242
Quibdó	27.5%	19.1%	16.0%	33.4%	4.1%	1058
Quindío	21.3%	18.2%	15.5%	43.9%	1.1%	2173
Riohacha	27.8%	21.7%	15.9%	32.5%	2.2%	1684
Rionegro	18.2%	12.8%	13.7%	54.7%	0.6%	826
Risaralda	22.3%	14.1%	14.8%	47.4%	1.4%	2246
Sabaneta	16.3%	10.4%	12.6%	59.9%	0.8%	374
Sahagún	22.4%	18.2%	14.2%	43.3%	1.9%	954
San Andrés	28.4%	18.5%	20.9%	26.4%	5.7%	454
Santa Marta	26.9%	16.5%	17.4%	36.9%	2.3%	4140
Santander	19.3%	14.4%	14.5%	50.8%	1.0%	6457
Sincelejo	24.1%	17.8%	17.0%	39.6%	1.5%	2551
Soacha	22.4%	14.2%	16.6%	45.9%	0.9%	4149
Sogamoso	19.4%	11.3%	15.7%	53.2%	0.4%	1084
Soledad	27.6%	16.0%	18.8%	36.5%	1.1%	3900
Sucre	24.7%	22.3%	15.3%	35.8%	2.0%	5573
Tolima	20.5%	19.2%	14.4%	44.3%	1.7%	7453
Tuluá	21.1%	14.0%	16.5%	47.0%	1.4%	1616
Tumaco	25.6%	19.2%	13.6%	34.2%	7.5%	1864
Tunja	20.2%	12.1%	17.3%	49.6%	0.8%	1330
Turbo	25.0%	24.6%	14.4%	30.5%	5.4%	1474
Uribe	36.8%	22.4%	15.7%	21.9%	3.2%	402
Valle del Cauca	21.6%	17.1%	15.4%	44.6%	1.3%	7167
Valledupar	25.9%	15.4%	18.0%	37.9%	2.8%	3548
Vaupés	25.0%	25.0%	0.0%	50.0%	0.0%	4
Vichada	19.4%	24.5%	15.1%	36.5%	4.6%	458
Villavicencio	21.8%	14.8%	15.0%	47.8%	0.6%	4039
Yopal	21.0%	14.1%	18.5%	45.6%	0.8%	1316
Zipaquirá	19.4%	11.9%	18.4%	50.1%	0.3%	1028
Colombia	21.8%	16.2%	15.6%	44.5%	1.9%	365870

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

• **Pregunta 15.**

Juan tiene una mezcla de agua y arena. En la clase dispone de los siguientes métodos de separación:



El método que mejor separa la arena es la

- A. decantación, porque las partículas de arena se depositan en el fondo del recipiente.
- B. filtración, porque tanto la arena como el agua pasan a través del papel filtro.
- C. filtración, porque la arena queda en el filtro y el agua pasa a través de éste.
- D. decantación, porque el agua se puede retirar fácilmente trasvasando la mezcla.

• **Estructura**

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



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


ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	18.9%	20.3%	33.2%	21.7%	6.0%	789
Antioquia	18.6%	21.6%	41.9%	16.0%	1.9%	21458
Apartadó	18.5%	24.8%	40.1%	15.2%	1.4%	1238
Arauca	15.1%	23.6%	45.7%	13.2%	2.3%	1996
Armenia	17.7%	23.6%	43.4%	14.8%	0.6%	2027
Atlántico	18.1%	25.1%	35.1%	17.2%	4.5%	4447
Barrancabermeja	18.6%	24.8%	39.7%	15.2%	1.8%	1765
Barranquilla	19.7%	23.2%	40.7%	15.2%	1.3%	8016
Bello	18.9%	22.1%	45.3%	12.8%	0.9%	3060
Bogotá, D.C.	17.9%	21.5%	45.2%	13.1%	2.4%	52960
Bolívar	18.7%	25.7%	33.8%	17.9%	3.8%	7919
Boyacá	19.5%	22.0%	43.1%	14.3%	1.0%	7143
Bucaramanga	17.0%	20.4%	49.3%	12.3%	0.9%	3993
Buenaventura	19.2%	24.3%	35.8%	17.1%	3.6%	2516
Buga	18.3%	20.1%	40.8%	16.5%	4.3%	860
Caldas	17.7%	20.8%	43.7%	16.3%	1.5%	4333
Cali	17.9%	21.6%	44.4%	13.8%	2.3%	14281
Caquetá	20.3%	20.3%	42.2%	15.6%	1.6%	2258
Cartagena	19.5%	23.5%	39.1%	15.4%	2.5%	8166
Cartago	20.7%	23.9%	39.3%	14.5%	1.6%	799
Casanare	17.2%	22.7%	44.0%	14.2%	1.8%	2134
Cauca	18.6%	20.4%	41.0%	16.7%	3.2%	8849
Cesar	18.6%	22.0%	39.2%	17.9%	2.3%	6079
Chocó	18.0%	24.6%	33.3%	18.3%	5.8%	2790
Chía	18.5%	19.3%	49.6%	11.7%	0.9%	969
Ciénaga	18.3%	21.2%	41.2%	15.4%	3.9%	1119
Cundinamarca	17.7%	21.6%	45.7%	14.0%	1.1%	11869
Córdoba	19.7%	22.6%	36.4%	18.8%	2.5%	9379
Cúcuta	20.4%	22.7%	41.0%	15.0%	0.9%	5493
Dosquebradas	18.2%	20.4%	45.9%	14.8%	0.6%	1247
Duitama	16.6%	16.8%	55.1%	11.0%	0.6%	1039
Envigado	19.0%	18.0%	51.5%	11.5%	0.0%	1221
Facatativá	17.2%	24.0%	45.4%	12.9%	0.5%	1066
Florencia	18.3%	23.6%	39.0%	17.5%	1.6%	1472
Floridablanca	18.4%	20.3%	47.8%	12.4%	1.2%	1845
Fusagasugá	20.0%	23.3%	40.5%	15.3%	0.9%	1057

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## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girardot	19.0%	28.7%	34.8%	15.4%	2.1%	778
Girón	16.7%	26.4%	40.0%	15.8%	1.1%	1009
Guainía	0.0%	0.0%	100.0%	0.0%	0.0%	1
Guaviare	19.9%	23.2%	35.0%	17.0%	4.9%	712
Huila	17.9%	21.6%	43.3%	16.4%	0.8%	6392
Ibagué	18.5%	21.0%	45.6%	13.8%	1.1%	3970
Ipiales	15.6%	18.9%	51.5%	13.2%	0.8%	1003
Itagüí	19.2%	22.2%	41.7%	15.0%	1.8%	1363
Jamundí	18.8%	23.2%	40.6%	15.6%	1.8%	867
La Guajira	17.9%	26.2%	34.4%	18.8%	2.8%	2473
Lorica	18.7%	24.0%	37.9%	16.8%	2.7%	1152
Magangué	21.1%	24.9%	31.4%	19.5%	3.0%	1221
Magdalena	18.6%	23.8%	34.4%	18.5%	4.7%	6259
Maicao	18.8%	25.3%	34.9%	15.4%	5.6%	1428
Malambo	17.7%	24.1%	39.0%	16.2%	3.0%	945
Manizales	19.2%	21.0%	45.6%	13.4%	0.7%	2328
Medellín	19.0%	24.4%	40.9%	14.3%	1.4%	16071
Meta	19.8%	22.1%	40.1%	15.2%	2.7%	3963
Montería	19.1%	23.1%	40.8%	15.5%	1.5%	3789
Mosquera	16.9%	21.3%	46.1%	14.9%	0.8%	880
Nariño	17.4%	16.6%	48.2%	14.7%	3.1%	7158
Neiva	17.8%	23.3%	43.2%	14.4%	1.4%	3001
Norte de Santander	18.5%	21.6%	43.8%	14.9%	1.2%	5716
Palmira	18.5%	19.4%	46.0%	14.5%	1.5%	2081
Pasto	15.5%	19.5%	51.7%	12.7%	0.6%	3132
Pereira	17.8%	21.8%	43.7%	15.4%	1.3%	3513
Piedecuesta	17.1%	24.2%	44.1%	13.6%	1.0%	1104
Pitalito	17.5%	21.5%	44.8%	14.9%	1.3%	1264
Popayán	16.6%	19.6%	49.0%	13.9%	0.9%	2081
Putumayo	19.0%	22.1%	41.9%	15.4%	1.6%	3242
Quibdó	20.0%	24.9%	34.3%	16.4%	4.3%	1058
Quindío	17.7%	23.8%	41.5%	16.0%	1.0%	2173
Riohacha	18.6%	24.2%	36.0%	18.2%	2.9%	1684
Rionegro	16.6%	20.6%	49.8%	12.6%	0.5%	826
Risaralda	19.2%	21.1%	41.2%	16.8%	1.7%	2246
Sabaneta	15.2%	19.0%	50.5%	14.2%	1.1%	374
Sahagún	20.8%	21.8%	38.3%	17.6%	1.6%	954
San Andrés	19.8%	26.9%	35.2%	12.3%	5.7%	454
Santa Marta	18.5%	22.6%	41.2%	14.9%	2.7%	4140
Santander	17.9%	20.3%	47.6%	13.3%	1.0%	6457

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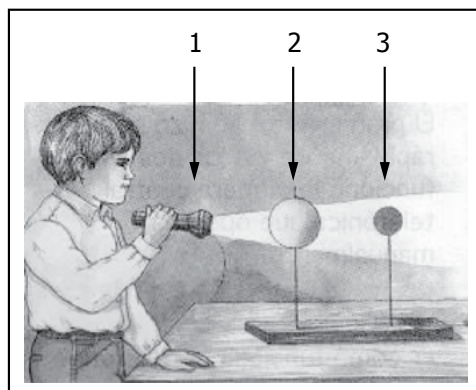


ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	19.5%	22.3%	40.2%	16.2%	1.8%	2551
Soacha	19.5%	22.7%	42.3%	14.4%	1.0%	4149
Sogamoso	18.7%	21.9%	48.0%	11.0%	0.5%	1084
Soledad	20.9%	22.6%	40.3%	15.0%	1.2%	3900
Sucre	20.3%	23.7%	35.1%	18.4%	2.5%	5573
Tolima	18.8%	21.8%	40.7%	16.9%	1.8%	7453
Tuluá	18.1%	21.8%	44.2%	15.0%	0.9%	1616
Tumaco	17.3%	23.6%	32.7%	18.1%	8.3%	1864
Tunja	18.0%	20.0%	48.1%	13.1%	0.8%	1330
Turbo	19.7%	24.8%	31.2%	18.0%	6.3%	1474
Uribe	15.4%	25.9%	39.6%	16.2%	3.0%	402
Valle del Cauca	16.8%	22.3%	43.3%	15.9%	1.6%	7167
Valledupar	19.0%	22.4%	38.9%	16.7%	3.0%	3548
Vaupés	0.0%	0.0%	50.0%	50.0%	0.0%	4
Vichada	19.7%	20.1%	35.4%	19.4%	5.5%	458
Villavicencio	19.5%	23.0%	42.8%	14.0%	0.7%	4039
Yopal	18.4%	23.1%	43.9%	13.8%	0.8%	1316
Zipaquirá	18.0%	23.1%	44.1%	14.5%	0.4%	1028
Colombia	18.5%	22.2%	42.2%	15.1%	2.1%	365870

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

• **Pregunta 16.**

Pedro realiza un experimento para representar un eclipse de luna, sabiendo que es un fenómeno natural, donde la Tierra se interpone directamente entre el Sol y la Luna. El procedimiento que realiza se encuentra en la siguiente imagen



Los objetos que representan 1,2 y 3 en orden son

- A. Tierra, Sol y Luna.
- B. Sol, Tierra y Luna.
- C. Tierra, Luna y Sol.
- D. Sol, Luna y Tierra.

• **Estructura**

<b>Competencia</b>	Uso comprensivo del conocimiento científico
<b>Componente</b>	Entorno físico
<b>Afirmación</b>	Reconocer los principales elementos y características de la Tierra y del espacio.
<b>Nivel de desempeño</b>	Avanzado
<b>Respuesta Correcta</b>	B

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

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	21.5%	26.9%	13.8%	30.7%	7.1%	789
Antioquia	24.2%	31.7%	12.4%	29.2%	2.6%	21458
Apartadó	24.6%	29.6%	13.7%	29.6%	2.5%	1238
Arauca	21.3%	33.5%	12.0%	30.7%	2.5%	1996
Armenia	18.8%	35.6%	10.9%	33.4%	1.3%	2027
Atlántico	24.4%	28.7%	13.6%	27.7%	5.5%	4447
Barrancabermeja	21.6%	34.9%	12.3%	29.0%	2.2%	1765
Barranquilla	21.7%	35.2%	11.2%	29.9%	2.0%	8016
Bello	21.2%	34.3%	10.9%	32.4%	1.2%	3060
Bogotá, D.C.	16.0%	40.7%	8.7%	31.8%	2.8%	52960
Bolívar	27.4%	25.1%	15.7%	27.2%	4.7%	7919
Boyacá	20.2%	36.6%	12.3%	29.4%	1.5%	7143
Bucaramanga	16.9%	42.1%	9.1%	30.5%	1.4%	3993
Buenaventura	27.8%	25.3%	12.9%	30.0%	4.0%	2516
Buga	18.1%	33.8%	9.3%	34.3%	4.4%	860
Caldas	22.8%	33.1%	11.8%	30.6%	1.7%	4333
Cali	19.6%	37.0%	9.3%	31.5%	2.7%	14281
Caquetá	23.7%	31.0%	14.5%	27.6%	3.1%	2258
Cartagena	23.6%	33.2%	12.3%	27.7%	3.3%	8166
Cartago	19.4%	36.2%	12.6%	29.9%	1.9%	799
Casanare	20.6%	33.5%	11.5%	32.1%	2.3%	2134
Cauca	24.3%	30.2%	13.7%	27.8%	4.0%	8849
Cesar	25.4%	30.5%	14.1%	27.2%	2.7%	6079
Chocó	29.0%	19.5%	16.6%	28.1%	6.8%	2790
Chía	11.8%	45.4%	7.1%	34.0%	1.8%	969
Ciénaga	25.9%	31.5%	13.2%	23.8%	5.5%	1119
Cundinamarca	18.6%	38.3%	10.5%	30.9%	1.8%	11869
Córdoba	26.3%	27.6%	14.8%	28.2%	3.0%	9379
Cúcuta	21.4%	35.9%	10.0%	31.3%	1.4%	5493
Dosquebradas	19.2%	35.6%	11.0%	33.0%	1.3%	1247
Duitama	14.1%	47.1%	8.5%	29.4%	1.0%	1039
Envigado	15.6%	44.7%	7.8%	31.6%	0.3%	1221
Facatativá	18.2%	40.3%	7.9%	32.5%	1.1%	1066
Florencia	20.4%	33.5%	13.0%	31.7%	1.5%	1472
Floridablanca	16.0%	42.6%	7.9%	31.8%	1.7%	1845
Fusagasugá	18.7%	36.1%	10.9%	32.7%	1.5%	1057
Girardot	23.7%	34.7%	11.2%	27.1%	3.3%	778

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	18.9%	40.2%	10.3%	29.5%	1.0%	1009
Guainía	0.0%	100.0%	0.0%	0.0%	0.0%	1
Guaviare	24.0%	29.9%	11.9%	29.2%	4.9%	712
Huila	20.5%	36.0%	11.3%	30.9%	1.3%	6392
Ibagué	18.4%	38.0%	10.3%	31.6%	1.7%	3970
Ipiales	18.2%	40.2%	9.6%	30.7%	1.3%	1003
Itagüí	21.9%	34.6%	10.7%	30.7%	2.1%	1363
Jamundí	22.1%	34.9%	11.2%	29.0%	2.8%	867
La Guajira	26.4%	26.6%	16.3%	26.6%	4.2%	2473
Lorica	26.0%	25.0%	15.6%	29.9%	3.5%	1152
Magangué	27.5%	28.2%	13.8%	26.9%	3.7%	1221
Magdalena	26.0%	26.6%	14.4%	27.5%	5.5%	6259
Maicao	22.3%	26.1%	13.8%	31.7%	6.2%	1428
Malambo	22.5%	34.9%	12.8%	24.8%	5.0%	945
Manizales	19.5%	36.3%	10.5%	32.7%	1.0%	2328
Medellín	21.4%	33.2%	12.2%	31.3%	1.9%	16071
Meta	20.3%	34.3%	11.2%	31.3%	3.0%	3963
Montería	22.2%	32.8%	13.5%	29.2%	2.3%	3789
Mosquera	15.1%	41.4%	7.6%	35.0%	0.9%	880
Nariño	22.3%	36.1%	11.9%	26.3%	3.4%	7158
Neiva	20.9%	37.5%	10.3%	29.7%	1.6%	3001
Norte de Santander	21.0%	37.3%	11.8%	28.0%	2.0%	5716
Palmira	19.5%	37.4%	8.6%	32.6%	1.8%	2081
Pasto	19.7%	37.2%	10.6%	31.3%	1.1%	3132
Pereira	19.6%	36.6%	9.4%	32.4%	2.0%	3513
Piedecuesta	17.6%	39.3%	10.4%	31.3%	1.4%	1104
Pitalito	17.9%	35.2%	12.6%	32.4%	1.9%	1264
Popayán	17.7%	40.2%	9.4%	31.0%	1.6%	2081
Putumayo	22.6%	31.7%	13.7%	29.7%	2.4%	3242
Quibdó	28.9%	24.0%	15.5%	26.3%	5.3%	1058
Quindío	20.9%	32.9%	11.2%	33.1%	1.8%	2173
Riohacha	24.1%	27.0%	13.9%	31.7%	3.4%	1684
Rionegro	16.9%	38.3%	10.0%	33.4%	1.3%	826
Risaralda	20.9%	32.6%	11.1%	33.1%	2.2%	2246
Sabaneta	18.4%	41.4%	9.9%	28.6%	1.6%	374
Sahagún	24.8%	31.2%	14.6%	27.4%	2.0%	954
San Andrés	18.9%	31.5%	14.8%	28.9%	5.9%	454
Santa Marta	21.7%	33.9%	11.6%	29.8%	3.0%	4140
Santander	20.0%	38.7%	10.6%	29.2%	1.5%	6457
Sincelejo	22.8%	33.2%	11.8%	29.7%	2.6%	2551

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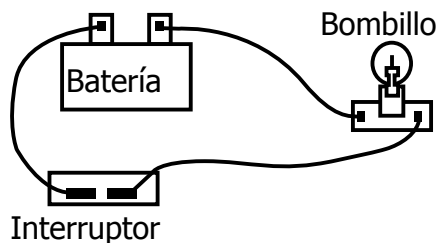


ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	18.6%	38.3%	9.5%	32.1%	1.4%	4149
Sogamoso	15.4%	45.6%	8.6%	29.8%	0.6%	1084
Soledad	22.3%	35.9%	10.7%	29.5%	1.6%	3900
Sucre	26.3%	27.9%	15.0%	27.7%	3.0%	5573
Tolima	21.3%	33.2%	12.1%	31.0%	2.3%	7453
Tuluá	20.7%	36.5%	10.4%	30.7%	1.7%	1616
Tumaco	26.7%	23.6%	13.4%	27.8%	8.6%	1864
Tunja	16.2%	40.6%	11.1%	31.2%	0.9%	1330
Turbo	29.4%	18.7%	15.7%	29.2%	6.9%	1474
Uribe	25.4%	22.1%	19.9%	28.6%	4.0%	402
Valle del Cauca	22.0%	33.4%	11.1%	31.4%	2.1%	7167
Valledupar	22.8%	32.9%	11.4%	28.8%	4.0%	3548
Vaupés	25.0%	50.0%	0.0%	25.0%	0.0%	4
Vichada	22.3%	33.0%	14.4%	25.1%	5.2%	458
Villavicencio	18.3%	37.0%	10.5%	33.1%	1.1%	4039
Yopal	17.2%	37.2%	10.6%	34.0%	1.1%	1316
Zipacquirá	18.2%	40.7%	9.2%	30.6%	1.3%	1028
Colombia	21.1%	34.7%	11.5%	30.2%	2.6%	365870

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

• **Pregunta 17.**

El siguiente dibujo representa un circuito eléctrico sencillo.



Si en el circuito anterior, cambias el interruptor por otro material, es de esperar que el bombillo encienda cuando coloques un trozo delgado de

- A. madera.
- B. plástico.
- C. cobre.
- D. vidrio.

• **Estructura**

<b>Competencia</b>	Uso comprensivo del conocimiento científico
<b>Componente</b>	Entorno físico
<b>Afirmación</b>	Comprender la estructura básica y el funcionamiento de los circuitos eléctricos.
<b>Nivel de desempeño</b>	Satisfactorio
<b>Respuesta Correcta</b>	C



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

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	24.0%	17.4%	34.5%	17.6%	6.6%	789
Antioquia	18.7%	13.7%	49.5%	16.2%	1.9%	21458
Apartadó	19.3%	14.2%	50.2%	14.3%	2.0%	1238
Arauca	17.8%	13.8%	52.0%	14.4%	2.0%	1996
Armenia	18.9%	14.4%	53.2%	13.1%	0.4%	2027
Atlántico	23.0%	15.7%	39.1%	17.7%	4.4%	4447
Barrancabermeja	19.9%	15.7%	51.4%	11.2%	1.8%	1765
Barranquilla	19.8%	15.6%	49.7%	13.6%	1.3%	8016
Bello	15.5%	16.8%	53.0%	13.8%	1.0%	3060
Bogotá, D.C.	12.9%	15.9%	57.1%	11.7%	2.4%	52960
Bolívar	27.1%	15.4%	34.3%	19.3%	3.9%	7919
Boyacá	17.2%	17.9%	47.0%	17.0%	1.0%	7143
Bucaramanga	16.3%	16.1%	56.0%	10.6%	1.0%	3993
Buenaventura	20.8%	14.8%	43.4%	17.6%	3.5%	2516
Buga	15.1%	14.2%	52.0%	14.2%	4.5%	860
Caldas	17.6%	14.3%	51.9%	14.9%	1.3%	4333
Cali	17.0%	14.0%	54.1%	12.6%	2.4%	14281
Caquetá	19.8%	17.1%	45.0%	16.3%	1.9%	2258
Cartagena	21.0%	15.8%	46.8%	13.9%	2.4%	8166
Cartago	16.8%	13.5%	53.1%	14.9%	1.8%	799
Casanare	17.0%	15.7%	48.8%	16.7%	1.8%	2134
Cauca	20.7%	12.9%	44.1%	18.8%	3.6%	8849
Cesar	20.9%	13.1%	47.3%	16.5%	2.2%	6079
Chocó	27.1%	15.3%	31.4%	19.8%	6.4%	2790
Chía	12.4%	15.5%	57.4%	13.5%	1.2%	969
Ciénaga	19.2%	13.8%	47.0%	15.1%	4.9%	1119
Cundinamarca	13.7%	15.4%	54.9%	14.9%	1.1%	11869
Córdoba	22.5%	15.2%	40.8%	19.1%	2.5%	9379
Cúcuta	16.9%	16.3%	53.3%	12.6%	0.9%	5493
Dosquebradas	14.9%	13.2%	60.0%	10.7%	1.3%	1247
Duitama	11.3%	12.5%	67.9%	7.9%	0.5%	1039
Envigado	12.8%	16.6%	56.8%	13.7%	0.2%	1221
Facatativá	16.0%	14.9%	57.1%	11.5%	0.4%	1066
Florencia	16.8%	17.4%	49.8%	14.4%	1.6%	1472
Floridablanca	13.8%	15.2%	59.2%	10.5%	1.2%	1845
Fusagasugá	15.7%	14.9%	56.3%	12.5%	0.7%	1057
Girardot	17.9%	15.0%	48.6%	16.2%	2.3%	778

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	16.8%	14.0%	54.9%	13.6%	0.7%	1009
Guainía	0.0%	0.0%	100.0%	0.0%	0.0%	1
Guaviare	17.0%	14.0%	50.0%	14.0%	4.9%	712
Huila	16.8%	16.0%	49.8%	16.4%	1.1%	6392
Ibagué	14.1%	13.3%	58.0%	13.1%	1.5%	3970
Ipiales	15.5%	17.7%	51.8%	13.9%	1.1%	1003
Itagüí	17.5%	17.2%	51.3%	12.5%	1.5%	1363
Jamundí	19.1%	13.8%	51.7%	14.1%	1.3%	867
La Guajira	23.0%	15.0%	40.6%	18.3%	3.1%	2473
Lorica	23.1%	17.7%	39.4%	17.2%	2.6%	1152
Magangué	22.9%	16.4%	40.2%	17.9%	2.6%	1221
Magdalena	25.2%	14.9%	37.4%	18.2%	4.4%	6259
Maicao	25.0%	13.6%	37.3%	18.5%	5.6%	1428
Malambo	21.1%	11.4%	50.9%	13.4%	3.2%	945
Manizales	14.3%	14.2%	56.4%	14.3%	0.8%	2328
Medellín	18.8%	16.6%	49.0%	14.3%	1.3%	16071
Meta	15.6%	13.6%	54.7%	13.6%	2.5%	3963
Montería	19.9%	14.6%	49.0%	14.7%	1.8%	3789
Mosquera	12.6%	17.2%	59.2%	10.2%	0.8%	880
Nariño	17.6%	14.5%	49.2%	15.8%	2.9%	7158
Neiva	16.9%	17.0%	50.7%	14.0%	1.4%	3001
Norte de Santander	19.0%	15.0%	49.7%	14.9%	1.3%	5716
Palmira	14.0%	12.9%	59.2%	12.3%	1.5%	2081
Pasto	14.5%	15.8%	57.3%	11.7%	0.6%	3132
Pereira	14.7%	13.7%	57.3%	13.1%	1.3%	3513
Piedecuesta	19.9%	16.1%	53.1%	10.5%	0.4%	1104
Pitalito	16.9%	14.4%	50.8%	16.5%	1.4%	1264
Popayán	14.1%	13.5%	58.4%	12.5%	1.4%	2081
Putumayo	18.7%	16.5%	48.5%	14.9%	1.4%	3242
Quibdó	21.6%	17.3%	33.7%	23.2%	4.2%	1058
Quindío	17.6%	12.9%	53.5%	15.1%	0.9%	2173
Riohacha	23.9%	16.2%	41.1%	16.2%	2.6%	1684
Rionegro	12.8%	14.5%	59.0%	12.8%	0.8%	826
Risaralda	18.0%	13.8%	50.6%	16.0%	1.5%	2246
Sabaneta	13.4%	16.8%	56.1%	12.6%	1.1%	374
Sahagún	19.3%	13.5%	49.6%	16.1%	1.5%	954
San Andrés	26.7%	16.5%	35.5%	16.1%	5.3%	454
Santa Marta	19.9%	15.4%	45.7%	16.1%	2.9%	4140
Santander	14.4%	14.4%	55.9%	14.2%	1.1%	6457
Sincelejo	19.8%	15.8%	48.6%	14.0%	1.8%	2551

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	14.2%	15.2%	56.8%	12.8%	1.0%	4149
Sogamoso	14.8%	18.4%	54.4%	11.9%	0.6%	1084
Soledad	20.2%	14.6%	50.7%	13.2%	1.3%	3900
Sucre	24.7%	15.1%	39.1%	18.3%	2.7%	5573
Tolima	17.1%	15.0%	50.1%	15.7%	2.0%	7453
Tuluá	16.9%	12.7%	56.6%	12.9%	0.8%	1616
Tumaco	25.1%	13.9%	35.7%	17.1%	8.3%	1864
Tunja	14.2%	15.3%	58.3%	11.8%	0.5%	1330
Turbo	25.9%	15.9%	33.1%	19.3%	5.8%	1474
Uribe	25.9%	18.4%	27.6%	25.6%	2.5%	402
Valle del Cauca	17.6%	14.1%	51.9%	14.7%	1.6%	7167
Valledupar	18.9%	14.1%	49.8%	14.2%	3.1%	3548
Vaupés	25.0%	50.0%	0.0%	25.0%	0.0%	4
Vichada	15.5%	16.8%	41.9%	21.6%	4.1%	458
Villavicencio	14.0%	14.9%	57.7%	12.4%	1.0%	4039
Yopal	13.6%	14.8%	57.4%	13.1%	1.1%	1316
Zipacquirá	13.4%	16.5%	53.6%	16.0%	0.5%	1028
Colombia	17.7%	15.1%	50.4%	14.7%	2.1%	365870

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

## • Pregunta 18.

La corriente eléctrica es una de las formas de energía que más utiliza el ser humano para llevar a cabo sus actividades cotidianas. Una de las situaciones en la que se usa la energía eléctrica es

- A.** la comunicación por internet.
- B.** el transporte en bicicleta.
- C.** la digestión de alimentos.
- D.** la fotosíntesis de la planta.

## • Estructura

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

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	50.6%	12.3%	16.0%	15.2%	6.0%	789
Antioquia	60.6%	11.0%	11.7%	14.3%	2.4%	21458
Apartadó	52.7%	14.5%	14.8%	16.2%	1.8%	1238
Arauca	62.5%	12.0%	11.5%	11.8%	2.2%	1996
Armenia	59.0%	15.7%	12.0%	12.5%	0.7%	2027
Atlántico	51.4%	14.5%	15.8%	13.4%	4.9%	4447
Barrancabermeja	59.7%	13.0%	12.3%	13.0%	2.0%	1765
Barranquilla	62.3%	12.2%	11.8%	12.0%	1.7%	8016
Bello	65.1%	10.5%	10.5%	12.7%	1.2%	3060
Bogotá, D.C.	67.5%	10.4%	8.6%	11.0%	2.6%	52960
Bolívar	45.8%	16.9%	17.9%	15.1%	4.4%	7919
Boyacá	62.2%	11.7%	12.0%	13.0%	1.2%	7143
Bucaramanga	71.5%	8.7%	8.6%	10.0%	1.2%	3993
Buenaventura	53.7%	12.9%	14.7%	14.6%	4.0%	2516
Buga	62.9%	9.8%	9.9%	12.4%	5.0%	860
Caldas	64.7%	10.6%	10.7%	12.5%	1.5%	4333

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Cali	64.8%	10.9%	10.0%	11.8%	2.5%	14281
Caquetá	55.0%	12.6%	15.1%	15.2%	2.1%	2258
Cartagena	59.6%	13.6%	12.4%	11.6%	2.9%	8166
Cartago	60.2%	12.8%	12.1%	13.6%	1.3%	799
Casanare	60.1%	11.0%	12.2%	14.6%	2.1%	2134
Cauca	59.3%	11.3%	11.6%	14.3%	3.5%	8849
Cesar	59.2%	12.1%	12.1%	14.3%	2.3%	6079
Chocó	45.1%	15.1%	17.4%	16.3%	6.2%	2790
Chía	72.5%	7.8%	7.2%	11.0%	1.3%	969
Ciénaga	57.2%	11.5%	14.3%	12.2%	4.7%	1119
Cundinamarca	66.1%	9.9%	9.8%	13.0%	1.2%	11869
Córdoba	53.2%	13.9%	15.1%	15.1%	2.7%	9379
Cúcuta	64.8%	11.5%	11.2%	11.2%	1.4%	5493
Dosquebradas	68.2%	10.4%	8.3%	11.9%	1.0%	1247
Duitama	75.3%	8.1%	8.0%	8.2%	0.5%	1039
Envigado	74.9%	9.6%	8.3%	6.8%	0.4%	1221
Facatativá	71.4%	9.9%	7.2%	11.1%	0.4%	1066
Florencia	57.0%	13.2%	12.3%	15.8%	1.7%	1472
Floridablanca	72.8%	10.2%	7.3%	8.3%	1.4%	1845
Fusagasugá	65.7%	11.6%	9.6%	12.5%	0.7%	1057
Girardot	60.3%	11.1%	10.3%	15.4%	3.0%	778
Girón	61.1%	13.8%	11.7%	12.7%	0.8%	1009
Guainía	100.0%	0.0%	0.0%	0.0%	0.0%	1
Guaviare	52.4%	14.0%	13.2%	15.7%	4.6%	712
Huila	61.9%	10.5%	11.7%	15.0%	1.0%	6392
Ibagué	66.2%	10.3%	10.1%	12.2%	1.3%	3970
Ipiales	70.5%	8.6%	9.0%	11.1%	0.9%	1003
Itagüí	60.4%	14.2%	11.7%	11.7%	2.1%	1363
Jamundí	60.2%	12.5%	14.4%	11.5%	1.4%	867
La Guajira	53.4%	13.8%	14.4%	15.0%	3.4%	2473
Lorica	48.1%	16.2%	16.1%	15.9%	3.7%	1152
Magangué	51.3%	13.0%	16.1%	16.3%	3.3%	1221
Magdalena	49.6%	14.3%	15.3%	15.7%	5.0%	6259
Maicao	45.7%	16.3%	16.3%	15.3%	6.4%	1428
Malambo	61.0%	10.5%	11.6%	13.1%	3.8%	945
Manizales	68.9%	9.7%	9.6%	10.9%	0.9%	2328
Medellín	55.7%	14.5%	13.4%	14.8%	1.5%	16071
Meta	59.9%	11.6%	11.4%	14.2%	3.0%	3963
Montería	56.2%	14.0%	13.0%	15.1%	1.6%	3789
Mosquera	71.0%	10.1%	7.5%	10.6%	0.8%	880

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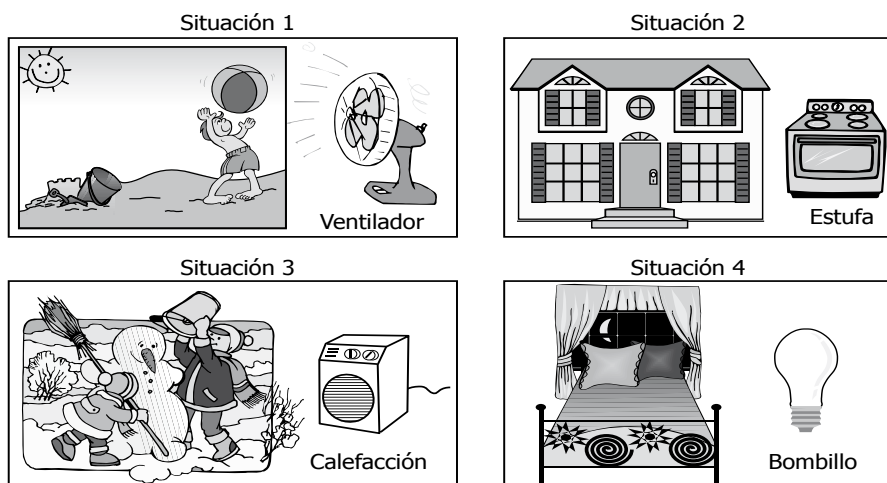
## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Nariño	66.8%	8.4%	9.6%	12.2%	3.0%	7158
Neiva	61.8%	11.9%	10.9%	13.9%	1.4%	3001
Norte de Santander	65.9%	10.3%	10.5%	11.9%	1.3%	5716
Palmira	67.8%	9.5%	10.1%	11.0%	1.7%	2081
Pasto	68.4%	11.0%	9.3%	10.6%	0.8%	3132
Pereira	67.1%	9.8%	9.7%	12.0%	1.4%	3513
Piedecuesta	66.7%	11.1%	9.1%	12.5%	0.6%	1104
Pitalito	60.6%	13.2%	10.8%	13.8%	1.6%	1264
Popayán	71.8%	7.5%	8.4%	10.9%	1.4%	2081
Putumayo	59.3%	12.6%	12.3%	14.2%	1.6%	3242
Quibdó	49.6%	15.6%	16.2%	14.0%	4.6%	1058
Quindío	58.0%	13.1%	12.4%	15.4%	1.1%	2173
Riohacha	54.5%	13.9%	14.3%	13.8%	3.6%	1684
Rionegro	66.8%	10.8%	8.7%	12.7%	1.0%	826
Risaralda	62.9%	10.6%	10.7%	14.3%	1.6%	2246
Sabaneta	71.7%	10.2%	8.0%	8.6%	1.6%	374
Sahagún	58.6%	13.0%	13.6%	12.9%	1.9%	954
San Andrés	39.9%	18.5%	17.8%	17.6%	6.2%	454
Santa Marta	58.1%	13.0%	11.8%	14.1%	3.0%	4140
Santander	67.5%	9.5%	10.8%	10.8%	1.4%	6457
Sincelejo	61.0%	12.5%	12.0%	12.6%	2.0%	2551
Soacha	66.5%	10.6%	9.3%	12.4%	1.3%	4149
Sogamoso	71.0%	11.1%	8.4%	9.2%	0.3%	1084
Soledad	62.3%	11.3%	11.6%	13.6%	1.2%	3900
Sucre	52.5%	14.8%	15.1%	14.8%	2.8%	5573
Tolima	60.4%	11.4%	11.7%	14.6%	2.0%	7453
Tuluá	65.9%	9.7%	9.9%	13.2%	1.3%	1616
Tumaco	44.3%	14.6%	17.7%	14.9%	8.5%	1864
Tunja	66.3%	11.7%	10.3%	10.8%	0.9%	1330
Turbo	42.8%	18.3%	15.7%	16.3%	6.9%	1474
Uribe	47.3%	20.4%	13.9%	15.4%	3.0%	402
Valle del Cauca	60.4%	11.5%	12.0%	14.4%	1.6%	7167
Valledupar	60.7%	11.6%	12.1%	12.3%	3.3%	3548
Vaupés	100.0%	0.0%	0.0%	0.0%	0.0%	4
Vichada	57.0%	13.3%	11.8%	13.1%	4.8%	458
Villavicencio	64.4%	10.8%	10.4%	13.4%	1.1%	4039
Yopal	62.7%	11.1%	10.8%	14.2%	1.2%	1316
Zipaquirá	68.6%	11.0%	9.8%	9.5%	1.1%	1028
Colombia	61.5%	11.7%	11.5%	13.0%	2.3%	365870

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

• **Pregunta 19.**

Observa las siguientes figuras.



Las situaciones en las que el clima es un factor importante para el uso de los aparatos eléctricos están representadas en

- A. 1 y 3
- B. 2 y 4
- C. 3 y 2
- D. 4 y 1

• **Estructura**

<b>Competencia</b>	Uso comprensivo del conocimiento científico
<b>Componente</b>	CTS
<b>Afirmación</b>	Comprender la diferencia entre varios/diversos tipos de máquinas.
<b>Nivel de desempeño</b>	Avanzado
<b>Respuesta Correcta</b>	A

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	25.2%	25.6%	17.6%	25.0%	6.6%	789
Antioquia	34.3%	25.9%	16.0%	21.3%	2.4%	21458
Apartadó	34.2%	26.5%	15.8%	21.8%	1.8%	1238
Arauca	33.4%	23.7%	15.7%	24.7%	2.5%	1996
Armenia	39.0%	23.4%	17.1%	19.6%	0.9%	2027
Atlántico	30.0%	25.4%	17.5%	22.0%	5.1%	4447
Barrancabermeja	36.3%	24.1%	15.1%	22.2%	2.3%	1765
Barranquilla	38.3%	23.5%	14.1%	22.3%	1.8%	8016
Bello	39.3%	25.9%	14.7%	18.9%	1.2%	3060
Bogotá, D.C.	45.7%	21.9%	12.9%	16.8%	2.7%	52960
Bolívar	26.7%	24.7%	20.0%	23.8%	4.8%	7919
Boyacá	34.1%	26.4%	15.1%	23.1%	1.2%	7143
Bucaramanga	42.3%	23.8%	13.5%	19.0%	1.3%	3993
Buenaventura	31.2%	26.0%	16.2%	22.2%	4.3%	2516
Buga	38.6%	23.5%	12.7%	20.5%	4.8%	860
Caldas	36.0%	25.4%	15.7%	21.2%	1.6%	4333
Cali	41.2%	24.1%	13.6%	18.3%	2.7%	14281
Caquetá	32.1%	26.7%	16.4%	22.5%	2.2%	2258
Cartagena	37.0%	23.1%	14.9%	22.2%	2.9%	8166
Cartago	34.4%	25.4%	16.9%	20.8%	2.5%	799
Casanare	32.2%	24.9%	14.7%	26.0%	2.2%	2134
Cauca	31.1%	27.4%	15.8%	21.5%	4.2%	8849
Cesar	33.4%	23.6%	16.5%	23.5%	2.9%	6079
Chocó	24.4%	26.8%	20.3%	21.5%	7.0%	2790
Chía	49.0%	19.2%	13.7%	16.4%	1.7%	969
Ciénaga	35.2%	21.3%	14.5%	24.1%	4.9%	1119
Cundinamarca	40.1%	24.8%	13.1%	20.8%	1.3%	11869
Córdoba	27.8%	25.7%	18.7%	24.8%	2.9%	9379
Cúcuta	39.7%	23.2%	13.6%	22.3%	1.2%	5493
Dosquebradas	39.0%	26.0%	13.8%	19.9%	1.4%	1247
Duitama	50.8%	23.0%	10.2%	15.4%	0.6%	1039
Envigado	51.3%	19.5%	13.8%	15.0%	0.4%	1221
Facatativá	43.7%	22.5%	13.2%	20.0%	0.6%	1066
Florencia	34.6%	24.9%	16.0%	22.4%	2.0%	1472
Floridablanca	44.3%	22.8%	12.7%	19.0%	1.2%	1845
Fusagasugá	40.9%	24.3%	14.4%	19.1%	1.3%	1057
Girardot	37.5%	23.8%	15.0%	20.1%	3.6%	778

Continúa en la siguiente página





ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	38.7%	23.5%	15.6%	21.3%	1.0%	1009
Guainía	0.0%	0.0%	0.0%	100.0%	0.0%	1
Guaviare	25.6%	27.7%	16.3%	25.3%	5.2%	712
Huila	33.5%	26.4%	14.0%	25.0%	1.1%	6392
Ibagué	39.8%	25.3%	13.0%	20.5%	1.3%	3970
Ipiales	44.1%	23.9%	12.7%	18.1%	1.2%	1003
Itagüí	42.5%	25.6%	16.2%	13.7%	2.0%	1363
Jamundí	34.4%	26.6%	16.4%	20.5%	2.1%	867
La Guajira	26.9%	27.4%	16.7%	25.3%	3.8%	2473
Lorica	26.6%	25.3%	20.7%	23.8%	3.7%	1152
Magangué	29.4%	25.1%	17.6%	24.2%	3.8%	1221
Magdalena	26.6%	25.0%	19.2%	23.9%	5.4%	6259
Maicao	28.2%	24.4%	18.1%	22.3%	7.1%	1428
Malambo	38.4%	21.1%	15.7%	20.1%	4.8%	945
Manizales	40.1%	26.1%	14.3%	18.3%	1.2%	2328
Medellín	38.2%	24.7%	17.3%	18.0%	1.8%	16071
Meta	34.2%	24.9%	14.5%	23.5%	2.9%	3963
Montería	32.6%	25.4%	17.0%	23.1%	1.9%	3789
Mosquera	47.3%	24.3%	11.3%	16.5%	0.7%	880
Nariño	34.3%	28.3%	13.9%	20.4%	3.2%	7158
Neiva	36.5%	25.6%	14.0%	22.1%	1.8%	3001
Norte de Santander	36.7%	25.2%	13.4%	23.3%	1.5%	5716
Palmira	41.1%	25.0%	12.9%	19.2%	1.8%	2081
Pasto	40.7%	27.3%	13.1%	18.0%	0.8%	3132
Pereira	40.4%	25.2%	13.6%	19.1%	1.6%	3513
Piedecuesta	40.4%	22.9%	14.2%	21.6%	0.8%	1104
Pitalito	34.2%	24.9%	15.9%	23.3%	1.7%	1264
Popayán	44.5%	22.7%	14.1%	17.0%	1.6%	2081
Putumayo	33.6%	25.5%	14.3%	24.7%	1.9%	3242
Quibdó	30.1%	25.1%	19.1%	20.1%	5.6%	1058
Quindío	34.9%	27.4%	16.0%	20.4%	1.3%	2173
Riohacha	30.6%	25.2%	16.9%	24.1%	3.2%	1684
Rionegro	41.4%	23.2%	14.2%	20.3%	0.8%	826
Risaralda	36.2%	25.4%	15.5%	20.9%	2.0%	2246
Sabaneta	44.9%	23.5%	18.4%	11.5%	1.6%	374
Sahagún	30.9%	25.3%	17.0%	24.6%	2.2%	954
San Andrés	29.1%	26.9%	19.8%	18.3%	5.9%	454
Santa Marta	35.7%	24.2%	16.3%	20.5%	3.3%	4140
Santander	38.1%	24.0%	13.1%	23.6%	1.3%	6457
Sincelejo	37.3%	25.4%	12.9%	21.9%	2.5%	2551

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	42.8%	23.4%	14.1%	18.3%	1.4%	4149
Sogamoso	47.8%	21.9%	12.5%	17.4%	0.4%	1084
Soledad	36.6%	23.3%	16.2%	22.6%	1.4%	3900
Sucre	27.1%	26.4%	18.8%	24.7%	3.0%	5573
Tolima	33.7%	24.6%	15.1%	24.3%	2.4%	7453
Tuluá	42.0%	23.9%	13.6%	19.1%	1.4%	1616
Tumaco	26.9%	26.3%	17.6%	19.9%	9.3%	1864
Tunja	41.8%	25.8%	13.1%	18.5%	0.8%	1330
Turbo	25.8%	23.2%	19.3%	23.7%	7.9%	1474
Uribe	16.4%	29.4%	20.9%	31.1%	2.2%	402
Valle del Cauca	35.8%	26.8%	15.0%	20.6%	1.8%	7167
Valledupar	34.9%	24.5%	13.5%	23.7%	3.4%	3548
Vaupés	25.0%	25.0%	50.0%	0.0%	0.0%	4
Vichada	28.8%	24.9%	15.9%	24.7%	5.7%	458
Villavicencio	42.1%	23.0%	13.3%	20.4%	1.2%	4039
Yopal	39.2%	24.9%	12.5%	22.3%	1.0%	1316
Zipaquirá	45.1%	23.9%	11.6%	18.1%	1.3%	1028
Colombia	37.1%	24.6%	15.0%	20.8%	2.5%	365870

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

• **Pregunta 20.**

Un niño observó los siguientes animales: caballos, gatos, águilas, ranas, tigrillos, tiburones y conejos. De los animales que el niño observó, ¿cuáles son domésticos?

- A.** Los caballos, gatos, tigrillos y conejos.
- B.** Los gatos, tigrillos, tiburones, águilas y ranas.
- C.** Los caballos, gatos y conejos.
- D.** Los tiburones, tigrillos, águilas y ranas.

• **Estructura**

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

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	25.0%	10.0%	49.0%	10.5%	5.4%	789
Antioquia	17.7%	7.9%	65.6%	7.2%	1.6%	21462
Apartadó	24.3%	11.6%	54.4%	8.4%	1.3%	1238
Arauca	17.5%	8.0%	66.4%	6.8%	1.3%	1996
Armenia	18.2%	7.3%	68.9%	5.0%	0.6%	2026
Atlántico	22.4%	11.3%	54.1%	8.5%	3.7%	4443
Barrancabermeja	21.8%	9.6%	61.0%	6.5%	1.1%	1763
Barranquilla	19.4%	8.8%	62.5%	7.9%	1.3%	8016
Bello	16.7%	6.0%	69.9%	6.5%	0.9%	3061
Bogotá, D.C.	15.2%	5.3%	72.2%	5.1%	2.2%	52956
Bolívar	26.5%	13.2%	47.1%	10.0%	3.2%	7920
Boyacá	16.5%	8.5%	67.3%	7.0%	0.7%	7145
Bucaramanga	15.7%	6.0%	72.1%	5.4%	0.8%	3992
Buenaventura	21.6%	10.9%	56.3%	8.7%	2.6%	2515
Buga	17.1%	5.0%	68.1%	5.8%	4.0%	860
Caldas	15.2%	7.0%	70.6%	6.0%	1.1%	4334
Cali	17.2%	6.6%	68.4%	5.8%	2.0%	14283

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Caquetá	20.0%	9.7%	61.4%	7.1%	1.7%	2253
Cartagena	22.6%	10.8%	56.1%	8.2%	2.3%	8170
Cartago	17.6%	6.4%	68.5%	6.5%	1.0%	800
Casanare	17.6%	8.7%	65.0%	7.1%	1.6%	2137
Cauca	16.2%	8.3%	65.3%	7.0%	3.2%	8851
Cesar	19.1%	9.8%	60.5%	8.8%	1.8%	6077
Chocó	27.0%	11.9%	47.3%	9.4%	4.4%	2790
Chía	12.7%	3.4%	79.4%	3.2%	1.2%	968
Ciénaga	22.0%	10.5%	55.4%	8.2%	3.8%	1119
Cundinamarca	13.3%	6.3%	73.9%	5.6%	0.9%	11868
Córdoba	22.0%	11.7%	55.1%	9.0%	2.2%	9379
Cúcuta	19.7%	7.9%	64.3%	7.4%	0.7%	5493
Dosquebradas	15.7%	6.4%	71.7%	5.3%	0.9%	1247
Duitama	12.3%	4.7%	79.7%	3.2%	0.1%	1037
Envigado	14.4%	2.9%	78.2%	4.1%	0.3%	1222
Facatativá	14.9%	4.5%	73.0%	7.3%	0.3%	1068
Florencia	19.7%	8.4%	63.5%	7.1%	1.4%	1472
Floridablanca	13.0%	5.0%	76.1%	4.7%	1.1%	1847
Fusagasugá	13.6%	5.9%	74.0%	6.1%	0.4%	1057
Girardot	19.0%	7.2%	64.7%	7.2%	1.9%	778
Girón	18.2%	7.2%	66.0%	8.0%	0.6%	1013
Guainía	0.0%	0.0%	50.0%	50.0%	0.0%	2
Guaviare	20.4%	7.4%	62.2%	6.9%	3.1%	712
Huila	17.1%	7.4%	67.3%	7.2%	0.9%	6391
Ibagué	15.7%	7.3%	69.8%	6.0%	1.2%	3972
Ipiales	11.2%	5.4%	77.1%	5.5%	0.9%	1003
Itagüí	20.0%	7.4%	65.3%	5.7%	1.6%	1363
Jamundí	21.6%	8.7%	60.0%	8.0%	1.8%	867
La Guajira	22.6%	10.8%	55.3%	8.4%	2.9%	2473
Lorica	24.4%	12.2%	50.3%	10.2%	2.9%	1152
Magangué	26.5%	12.9%	48.4%	9.6%	2.6%	1221
Magdalena	23.9%	12.8%	49.2%	9.8%	4.2%	6256
Maicao	22.4%	12.8%	49.2%	10.2%	5.5%	1430
Malambo	19.0%	10.0%	61.1%	7.0%	2.9%	946
Manizales	13.2%	5.5%	75.5%	5.2%	0.6%	2325
Medellín	20.3%	7.9%	64.2%	6.6%	1.0%	16066
Meta	17.7%	9.0%	64.4%	6.7%	2.2%	3964
Montería	19.8%	9.8%	60.9%	7.9%	1.6%	3787
Mosquera	14.1%	3.6%	76.0%	5.7%	0.6%	880
Nariño	14.1%	7.1%	69.8%	6.4%	2.7%	7159

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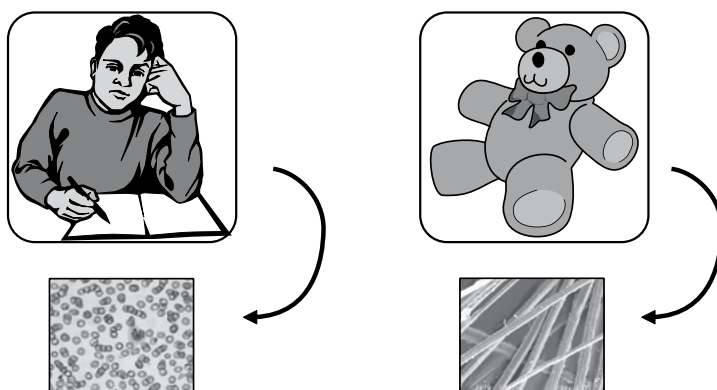


ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Neiva	17.5%	9.1%	65.4%	7.1%	0.9%	3001
Norte de Santander	17.1%	8.5%	66.2%	7.1%	1.0%	5716
Palmira	16.5%	5.8%	70.8%	5.8%	1.1%	2080
Pasto	13.5%	4.4%	76.0%	5.6%	0.5%	3135
Pereira	15.7%	5.6%	72.2%	5.5%	0.9%	3512
Piedecuesta	15.4%	6.1%	72.3%	5.6%	0.6%	1104
Pitalito	16.1%	7.0%	69.6%	6.4%	0.8%	1264
Popayán	14.0%	5.6%	74.2%	4.6%	1.6%	2084
Putumayo	17.2%	9.4%	63.2%	9.0%	1.3%	3241
Quibdó	21.6%	13.4%	49.5%	11.3%	4.1%	1058
Quindío	17.0%	6.8%	68.6%	6.8%	0.8%	2174
Riohacha	24.3%	12.0%	53.6%	7.2%	3.0%	1682
Rionegro	13.1%	7.3%	73.8%	5.3%	0.5%	826
Risaralda	15.6%	6.6%	69.3%	7.2%	1.3%	2246
Sabaneta	17.3%	5.9%	71.5%	4.8%	0.5%	376
Sahagún	21.9%	11.3%	55.6%	9.4%	1.8%	954
San Andrés	29.7%	10.6%	48.5%	7.5%	3.7%	454
Santa Marta	21.2%	9.3%	60.1%	7.1%	2.4%	4141
Santander	14.7%	6.8%	71.7%	6.0%	0.8%	6451
Sincelejo	20.3%	9.2%	61.8%	7.1%	1.6%	2551
Soacha	17.2%	6.4%	69.3%	5.8%	1.2%	4151
Sogamoso	12.1%	5.1%	78.3%	4.2%	0.3%	1084
Soledad	18.6%	8.8%	64.6%	7.1%	0.9%	3903
Sucre	24.3%	11.8%	52.4%	9.3%	2.2%	5575
Tolima	16.4%	8.7%	65.7%	7.5%	1.7%	7452
Tuluá	15.3%	6.0%	72.5%	5.3%	0.9%	1617
Tumaco	25.5%	12.7%	45.1%	9.7%	7.0%	1864
Tunja	12.9%	6.2%	74.7%	5.7%	0.5%	1330
Turbo	23.4%	12.3%	48.4%	11.3%	4.6%	1472
Uribe	24.9%	12.9%	49.0%	11.7%	1.5%	402
Valle del Cauca	16.5%	7.5%	68.4%	6.3%	1.3%	7166
Valledupar	18.4%	9.4%	61.2%	8.1%	2.8%	3550
Vaupés	40.0%	0.0%	60.0%	0.0%	0.0%	5
Vichada	19.7%	9.0%	60.5%	6.6%	4.4%	458
Villavicencio	16.9%	7.0%	70.0%	5.5%	0.6%	4036
Yopal	17.3%	7.4%	66.6%	7.5%	1.2%	1315
Zipaquirá	14.4%	4.6%	74.7%	5.8%	0.5%	1028
Colombia	17.9%	8.0%	65.5%	6.8%	1.8%	365872

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

**RESPONDE LAS PREGUNTAS 21 Y 22 DE ACUERDO CON LA SIGUIENTE INFORMACIÓN**

Andrés quiere tener evidencias de que su juguete no está vivo, para esto él lleva al colegio una muestra del relleno de un oso de peluche y lo compara con una muestra de su sangre. A continuación se observa lo que vio Andrés:



• **Pregunta 21.**

La evidencia que tiene Andrés para afirmar que el oso **no** es un ser vivo es que

- A. las fibras del oso son grises mientras que la sangre de Andrés es roja.
- B. el relleno del oso es esponjoso mientras que la sangre de Andrés es líquida.
- C. el oso tiene fibras de algodón mientras que la sangre de Andrés tiene células.
- D. las fibras del oso son largas mientras que las células de Andrés son redondas.

• **Estructura**

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

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	14.3%	21.8%	36.2%	22.6%	5.1%	789
Antioquia	13.2%	24.6%	41.8%	18.6%	1.8%	21462
Apartadó	12.2%	26.3%	38.8%	21.9%	0.9%	1238
Arauca	11.8%	25.0%	41.2%	20.3%	1.7%	1996
Armenia	8.5%	24.2%	46.2%	20.4%	0.7%	2026
Atlántico	13.9%	24.5%	39.1%	18.5%	3.9%	4443
Barrancabermeja	12.1%	22.6%	44.2%	19.6%	1.4%	1763
Barranquilla	11.9%	22.9%	47.1%	16.8%	1.2%	8016
Bello	9.6%	22.1%	51.3%	16.3%	0.8%	3061
Bogotá, D.C.	6.8%	18.6%	55.3%	17.0%	2.2%	52956
Bolívar	15.3%	26.6%	36.2%	18.3%	3.6%	7920
Boyacá	12.3%	24.6%	42.9%	19.5%	0.8%	7145
Bucaramanga	7.6%	22.8%	50.9%	18.1%	0.7%	3992
Buenaventura	16.2%	24.1%	36.9%	19.0%	3.7%	2515
Buga	8.5%	20.7%	50.9%	15.9%	4.0%	860
Caldas	13.5%	25.0%	43.0%	17.4%	1.2%	4334
Cali	8.9%	21.9%	48.8%	18.5%	2.0%	14283
Caquetá	16.3%	26.1%	35.7%	19.7%	2.3%	2253
Cartagena	12.0%	22.9%	45.0%	17.9%	2.3%	8170
Cartago	10.4%	21.6%	48.0%	19.0%	1.0%	800
Casanare	12.5%	22.6%	41.4%	21.7%	1.8%	2137
Cauca	14.5%	23.7%	40.1%	18.3%	3.5%	8851
Cesar	13.3%	25.9%	38.9%	19.8%	2.1%	6077
Chocó	17.5%	25.4%	32.9%	19.1%	5.2%	2790
Chía	5.6%	16.7%	59.2%	16.9%	1.5%	968
Ciénaga	13.9%	24.8%	38.7%	18.3%	4.3%	1119
Cundinamarca	9.5%	21.3%	50.0%	18.3%	0.9%	11868
Córdoba	14.6%	24.0%	39.2%	19.9%	2.3%	9379
Cúcuta	10.4%	24.3%	43.7%	20.8%	0.7%	5493
Dosquebradas	8.2%	23.5%	47.4%	19.7%	1.2%	1247
Duitama	4.8%	17.8%	61.7%	15.5%	0.1%	1037
Envigado	6.0%	17.1%	60.7%	15.9%	0.3%	1222
Facatativá	7.3%	20.4%	54.6%	17.2%	0.5%	1068
Florencia	12.5%	24.3%	41.2%	21.0%	1.0%	1472
Floridablanca	7.3%	21.8%	53.8%	16.1%	1.0%	1847
Fusagasugá	8.9%	21.3%	51.9%	17.7%	0.2%	1057
Girardot	10.8%	20.1%	45.2%	21.9%	2.1%	778


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## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	10.3%	23.9%	46.5%	18.9%	0.5%	1013
Guainía	0.0%	50.0%	50.0%	0.0%	0.0%	2
Guaviare	15.4%	25.7%	34.3%	20.9%	3.7%	712
Huila	11.4%	25.0%	43.3%	19.2%	1.0%	6391
Ibagué	9.1%	21.1%	49.1%	19.7%	1.1%	3972
Ipiales	8.6%	21.9%	50.4%	18.3%	0.7%	1003
Itagüí	9.8%	20.9%	50.6%	16.9%	1.7%	1363
Jamundí	9.6%	24.6%	42.0%	21.7%	2.2%	867
La Guajira	14.2%	26.0%	39.1%	17.8%	2.9%	2473
Lorica	14.8%	28.6%	36.6%	17.4%	2.7%	1152
Magangué	14.9%	25.2%	37.0%	20.1%	2.7%	1221
Magdalena	16.1%	26.2%	34.2%	19.3%	4.2%	6256
Maicao	14.1%	27.6%	36.0%	16.9%	5.4%	1430
Malambo	12.2%	24.6%	44.0%	16.2%	3.1%	946
Manizales	8.0%	22.9%	51.1%	17.4%	0.6%	2325
Medellín	10.3%	23.2%	47.5%	18.0%	1.0%	16066
Meta	12.9%	25.2%	39.9%	20.1%	1.9%	3964
Montería	11.3%	24.8%	42.4%	19.7%	1.8%	3787
Mosquera	7.6%	20.0%	51.5%	20.8%	0.1%	880
Nariño	12.3%	22.3%	45.2%	17.3%	2.9%	7159
Neiva	9.6%	21.8%	50.0%	17.8%	0.8%	3001
Norte de Santander	12.0%	24.9%	42.9%	19.2%	1.0%	5716
Palmira	8.5%	19.0%	50.7%	20.5%	1.3%	2080
Pasto	6.5%	21.1%	55.2%	16.8%	0.4%	3135
Pereira	9.1%	23.5%	48.7%	18.0%	0.8%	3512
Piedecuesta	8.5%	22.1%	48.1%	20.5%	0.8%	1104
Pitalito	10.1%	24.1%	46.1%	18.6%	1.0%	1264
Popayán	7.6%	19.7%	55.6%	15.6%	1.6%	2084
Putumayo	13.1%	24.1%	40.7%	20.8%	1.3%	3241
Quibdó	15.7%	26.7%	35.0%	17.9%	4.7%	1058
Quindío	11.7%	24.3%	46.6%	16.8%	0.6%	2174
Riohacha	14.6%	26.9%	36.9%	18.8%	2.8%	1682
Rionegro	7.7%	20.6%	50.2%	20.9%	0.5%	826
Risaralda	12.4%	23.6%	41.8%	20.7%	1.5%	2246
Sabaneta	4.8%	19.1%	58.5%	17.0%	0.5%	376
Sahagún	13.3%	23.8%	41.4%	19.6%	1.9%	954
San Andrés	14.1%	26.4%	36.6%	18.7%	4.2%	454
Santa Marta	11.0%	25.6%	42.2%	18.6%	2.6%	4141
Santander	12.0%	22.0%	46.8%	18.4%	0.8%	6451
Sincelejo	10.5%	23.5%	45.6%	18.4%	1.9%	2551

Continúa en la siguiente página





ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	8.2%	21.2%	50.6%	19.0%	1.0%	4151
Sogamoso	7.5%	22.0%	50.3%	19.9%	0.4%	1084
Soledad	11.7%	23.2%	44.3%	20.1%	0.7%	3903
Sucre	14.9%	26.5%	37.2%	19.2%	2.2%	5575
Tolima	12.5%	23.7%	42.1%	20.0%	1.7%	7452
Tuluá	9.5%	23.1%	49.3%	17.3%	0.8%	1617
Tumaco	15.2%	23.9%	35.2%	18.5%	7.1%	1864
Tunja	8.0%	20.4%	54.3%	16.5%	0.8%	1330
Turbo	15.1%	25.0%	34.7%	19.9%	5.3%	1472
Uribe	13.9%	31.8%	38.1%	14.4%	1.7%	402
Valle del Cauca	10.8%	23.2%	45.5%	19.1%	1.4%	7166
Valledupar	11.5%	23.5%	41.4%	20.5%	3.1%	3550
Vaupés	0.0%	40.0%	0.0%	60.0%	0.0%	5
Vichada	15.1%	22.3%	39.1%	18.6%	5.0%	458
Villavicencio	9.2%	22.8%	48.5%	19.0%	0.5%	4036
Yopal	9.2%	25.6%	44.1%	20.2%	0.8%	1315
Zipaquirá	6.9%	21.8%	53.4%	17.5%	0.4%	1028
Colombia	11.0%	22.9%	45.8%	18.5%	1.9%	365872

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

• **Pregunta 22.**

Para que Andrés pueda comparar su sangre con el relleno del oso de peluche debe usar

A.



Un telescopio

B.



Una lupa

C.



Unas gafas

D.



Un microscopio

• **Estructura**

<b>Competencia</b>	Indagación
<b>Componente</b>	Entorno vivo
<b>Afirmación</b>	Utilizar algunas habilidades de pensamiento y de procedimiento para evaluar predicciones.
<b>Nivel de desempeño</b>	Mínimo
<b>Respuesta Correcta</b>	D

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	5.1%	8.0%	10.0%	70.6%	6.3%	789
Antioquia	4.5%	8.8%	7.3%	77.2%	2.2%	21462
Apartadó	5.7%	10.1%	9.0%	72.9%	2.2%	1238
Arauca	3.3%	7.9%	6.3%	80.5%	2.0%	1996
Armenia	3.1%	7.0%	5.2%	84.1%	0.7%	2026
Atlántico	5.3%	11.6%	10.1%	68.6%	4.4%	4443
Barrancabermeja	4.5%	7.5%	6.6%	79.5%	1.9%	1763
Barranquilla	3.7%	7.0%	6.1%	81.5%	1.6%	8016
Bello	2.6%	6.2%	5.0%	85.0%	1.2%	3061
Bogotá, D.C.	1.8%	4.6%	3.3%	87.8%	2.4%	52956
Bolívar	6.8%	12.9%	11.9%	64.2%	4.2%	7920
Boyacá	4.5%	8.0%	5.9%	80.3%	1.3%	7145
Bucaramanga	2.2%	5.5%	3.3%	88.1%	0.9%	3992

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Buenaventura	5.7%	11.2%	10.3%	68.7%	4.1%	2515
Buga	2.9%	5.3%	5.5%	81.7%	4.5%	860
Caldas	4.4%	8.3%	5.0%	80.8%	1.6%	4334
Cali	2.9%	6.7%	5.0%	83.1%	2.3%	14283
Caquetá	6.2%	9.1%	9.8%	72.4%	2.5%	2253
Cartagena	4.4%	10.2%	8.0%	74.5%	3.0%	8170
Cartago	3.6%	6.0%	5.9%	83.0%	1.5%	800
Casanare	4.4%	7.4%	6.6%	79.6%	2.1%	2137
Cauca	5.2%	8.8%	8.6%	73.1%	4.3%	8851
Cesar	5.3%	8.7%	8.9%	74.5%	2.6%	6077
Chocó	6.7%	12.9%	14.1%	59.6%	6.7%	2790
Chía	1.8%	4.3%	3.7%	88.7%	1.4%	968
Ciénaga	3.3%	10.9%	7.1%	73.9%	4.8%	1119
Cundinamarca	3.3%	6.6%	4.7%	84.2%	1.3%	11868
Córdoba	5.8%	10.7%	9.7%	70.9%	2.9%	9379
Cúcuta	3.5%	6.5%	5.4%	83.6%	0.9%	5493
Dosquebradas	2.2%	7.5%	4.2%	84.9%	1.3%	1247
Duitama	2.0%	4.1%	2.9%	90.5%	0.5%	1037
Envigado	1.3%	3.9%	3.0%	91.4%	0.3%	1222
Facatativá	2.1%	5.5%	2.9%	88.7%	0.8%	1068
Florencia	4.1%	7.1%	6.5%	80.9%	1.5%	1472
Floridablanca	2.1%	4.5%	3.4%	88.9%	1.1%	1847
Fusagasugá	2.7%	5.8%	3.3%	87.6%	0.6%	1057
Girardot	4.0%	5.4%	6.2%	82.0%	2.4%	778
Girón	2.3%	6.7%	4.4%	85.9%	0.7%	1013
Guainía	0.0%	50.0%	0.0%	50.0%	0.0%	2
Guaviare	3.9%	7.0%	8.8%	76.3%	3.9%	712
Huila	4.2%	7.7%	5.7%	81.0%	1.4%	6391
Ibagué	2.7%	5.6%	4.6%	85.5%	1.6%	3972
Ipiales	2.6%	7.4%	5.0%	83.6%	1.4%	1003
Itagüí	3.7%	8.5%	5.4%	80.3%	2.1%	1363
Jamundí	5.5%	9.1%	7.0%	76.0%	2.3%	867
La Guajira	5.2%	10.0%	11.6%	69.7%	3.5%	2473
Lorica	4.7%	13.0%	12.8%	65.2%	4.3%	1152
Magangué	5.3%	9.6%	9.9%	71.6%	3.6%	1221
Magdalena	6.5%	11.1%	12.0%	65.0%	5.4%	6256
Maicao	6.9%	10.8%	12.8%	63.2%	6.3%	1430
Malambo	3.8%	7.8%	7.6%	77.3%	3.5%	946
Manizales	2.7%	6.6%	3.7%	86.4%	0.6%	2325
Medellín	4.0%	7.3%	6.5%	80.9%	1.3%	16066
Meta	4.4%	7.3%	6.4%	79.3%	2.5%	3964

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Montería	4.8%	9.7%	6.4%	77.2%	2.0%	3787
Mosquera	2.0%	3.6%	2.8%	91.0%	0.5%	880
Nariño	4.8%	6.6%	6.8%	78.5%	3.3%	7159
Neiva	3.1%	7.1%	5.8%	83.0%	1.1%	3001
Norte de Santander	3.9%	8.4%	6.2%	80.3%	1.2%	5716
Palmira	3.0%	7.2%	3.5%	85.0%	1.3%	2080
Pasto	2.9%	5.1%	3.9%	87.4%	0.6%	3135
Pereira	2.3%	7.3%	3.9%	85.3%	1.3%	3512
Piedecuesta	2.8%	8.2%	5.0%	83.2%	0.8%	1104
Pitalito	3.2%	6.3%	6.1%	83.5%	0.8%	1264
Popayán	2.6%	4.8%	3.5%	87.0%	2.0%	2084
Putumayo	5.3%	10.2%	6.8%	76.1%	1.7%	3241
Quibdó	6.8%	10.8%	12.2%	64.5%	5.8%	1058
Quindío	4.4%	6.9%	6.0%	81.6%	1.1%	2174
Riohacha	6.5%	9.1%	11.1%	69.5%	3.7%	1682
Rionegro	2.4%	7.9%	3.4%	85.5%	0.8%	826
Risaralda	3.0%	9.0%	6.4%	79.7%	1.9%	2246
Sabaneta	3.7%	6.4%	3.5%	86.2%	0.3%	376
Sahagún	3.9%	8.6%	7.2%	78.3%	2.0%	954
San Andrés	7.0%	11.9%	10.6%	66.3%	4.2%	454
Santa Marta	4.2%	8.3%	6.6%	77.2%	3.7%	4141
Santander	3.8%	6.9%	4.5%	83.7%	1.1%	6451
Sincelejo	3.8%	7.5%	7.4%	79.1%	2.2%	2551
Soacha	2.9%	6.2%	3.8%	86.0%	1.1%	4151
Sogamoso	1.8%	7.0%	3.0%	87.5%	0.7%	1084
Soledad	3.5%	7.8%	5.6%	81.8%	1.3%	3903
Sucre	5.8%	11.3%	10.3%	69.5%	3.0%	5575
Tolima	4.6%	8.0%	6.9%	78.3%	2.2%	7452
Tuluá	2.4%	7.1%	5.8%	83.4%	1.4%	1617
Tumaco	5.9%	12.5%	12.3%	61.3%	8.0%	1864
Tunja	2.3%	5.3%	2.8%	88.9%	0.8%	1330
Turbo	5.4%	13.0%	13.4%	62.5%	5.7%	1472
Uribe	8.5%	12.7%	21.9%	54.2%	2.7%	402
Valle del Cauca	3.5%	8.1%	6.4%	80.2%	1.8%	7166
Valledupar	4.3%	8.1%	6.7%	77.9%	3.0%	3550
Vaupés	0.0%	20.0%	0.0%	80.0%	0.0%	5
Vichada	5.9%	7.2%	10.9%	69.4%	6.6%	458
Villavicencio	2.9%	4.6%	4.6%	87.2%	0.7%	4036
Yopal	2.8%	4.6%	4.9%	86.2%	1.4%	1315
Zipaquirá	1.9%	5.7%	3.4%	88.1%	0.8%	1028
Colombia	3.8%	7.6%	6.3%	79.9%	2.3%	365872

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

• **Pregunta 23.**

Observa el siguiente dibujo.



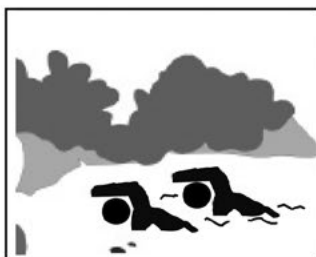
De las actividades ilustradas, la que más contamina el río es

**A.**

**B.**

**C.**

**D.**



• **Estructura**

<b>Competencia</b>	Uso comprensivo del conocimiento científico
<b>Componente</b>	CTS
<b>Afirmación</b>	Valorar y comprender la necesidad de seguir hábitos para mantener la salud y el entorno.
<b>Nivel de desempeño</b>	Mínimo
<b>Respuesta Correcta</b>	C

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	10.3%	11.4%	57.5%	14.8%	6.0%	789
Antioquia	10.5%	9.5%	63.7%	14.1%	2.2%	21462
Apartadó	11.2%	11.6%	60.2%	14.2%	2.7%	1238
Arauca	7.5%	10.1%	67.7%	12.6%	2.1%	1996
Armenia	7.0%	8.3%	70.6%	12.9%	1.2%	2026
Atlántico	11.3%	13.3%	54.4%	16.3%	4.7%	4443
Barrancabermeja	6.6%	9.8%	69.0%	12.9%	1.6%	1763
Barranquilla	8.0%	11.2%	63.7%	15.4%	1.8%	8016
Bello	6.9%	7.7%	66.1%	18.0%	1.3%	3061
Bogotá, D.C.	4.9%	5.8%	72.1%	14.6%	2.5%	52956
Bolívar	13.1%	15.0%	50.7%	17.0%	4.2%	7920
Boyacá	10.5%	9.0%	65.4%	13.9%	1.2%	7145
Bucaramanga	5.4%	6.3%	74.6%	12.7%	1.0%	3992
Buenaventura	10.9%	11.8%	57.9%	15.6%	3.9%	2515
Buga	6.6%	8.5%	64.2%	16.3%	4.4%	860
Caldas	9.3%	8.7%	67.1%	13.4%	1.5%	4334
Cali	5.8%	7.7%	68.5%	15.6%	2.4%	14283
Caquetá	11.5%	10.8%	61.3%	13.8%	2.7%	2253
Cartagena	9.3%	11.2%	61.6%	15.2%	2.7%	8170
Cartago	6.0%	8.4%	69.6%	14.6%	1.4%	800
Casanare	8.6%	9.3%	66.2%	13.5%	2.4%	2137
Cauca	10.0%	9.3%	62.4%	14.3%	4.0%	8851
Cesar	10.7%	11.2%	62.2%	13.3%	2.6%	6077
Chocó	15.0%	13.5%	45.4%	19.9%	6.2%	2790
Chía	3.6%	5.1%	73.8%	15.9%	1.7%	968
Ciénaga	9.2%	12.2%	60.1%	14.3%	4.1%	1119
Cundinamarca	7.7%	7.3%	70.4%	13.3%	1.3%	11868
Córdoba	13.6%	12.4%	53.3%	17.8%	3.0%	9379
Cúcuta	6.7%	7.9%	71.3%	13.0%	1.1%	5493
Dosquebradas	7.7%	6.0%	70.6%	14.4%	1.3%	1247
Duitama	4.9%	5.4%	73.9%	15.4%	0.4%	1037
Envigado	3.6%	6.1%	72.5%	17.3%	0.5%	1222
Facatativá	5.8%	7.1%	72.6%	13.6%	0.9%	1068
Florencia	7.0%	10.2%	68.1%	12.9%	1.8%	1472
Floridablanca	4.3%	5.8%	74.8%	13.9%	1.1%	1847
Fusagasugá	5.8%	7.9%	74.5%	11.0%	0.9%	1057
Girardot	8.0%	12.3%	63.6%	14.0%	2.1%	778

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	5.4%	7.0%	75.6%	11.0%	1.0%	1013
Guainía	100.0%	0.0%	0.0%	0.0%	0.0%	2
Guaviare	9.4%	9.0%	61.9%	15.7%	3.9%	712
Huila	9.4%	8.5%	69.4%	11.6%	1.2%	6391
Ibagué	6.4%	7.8%	69.2%	15.3%	1.3%	3972
Ipiales	7.3%	7.7%	71.0%	12.8%	1.3%	1003
Itagüí	7.9%	8.1%	62.9%	19.1%	2.1%	1363
Jamundí	6.7%	7.4%	68.6%	14.8%	2.5%	867
La Guajira	14.6%	13.0%	52.0%	16.6%	3.8%	2473
Lorica	12.5%	14.8%	51.6%	16.6%	4.5%	1152
Magangué	10.7%	12.1%	59.4%	15.2%	2.6%	1221
Magdalena	13.1%	13.2%	53.8%	15.0%	4.8%	6256
Maicao	12.0%	12.8%	54.1%	14.6%	6.5%	1430
Malambo	9.5%	9.5%	64.6%	11.8%	4.5%	946
Manizales	5.8%	6.9%	70.6%	16.1%	0.7%	2325
Medellín	8.4%	8.8%	62.7%	18.7%	1.4%	16066
Meta	7.8%	8.2%	68.9%	12.6%	2.5%	3964
Montería	10.6%	10.6%	60.8%	15.7%	2.2%	3787
Mosquera	3.8%	4.9%	78.3%	12.4%	0.7%	880
Nariño	9.0%	8.4%	66.3%	13.2%	3.1%	7159
Neiva	6.6%	8.0%	71.7%	12.4%	1.2%	3001
Norte de Santander	9.2%	8.4%	68.4%	12.9%	1.1%	5716
Palmira	5.5%	8.1%	69.5%	15.3%	1.5%	2080
Pasto	5.6%	6.4%	71.7%	15.5%	0.8%	3135
Pereira	5.5%	7.6%	69.8%	15.9%	1.2%	3512
Piedecuesta	6.5%	7.8%	69.4%	15.7%	0.6%	1104
Pitalito	9.1%	9.6%	68.8%	11.2%	1.4%	1264
Popayán	5.1%	5.9%	70.5%	16.8%	1.6%	2084
Putumayo	9.1%	7.9%	70.3%	11.0%	1.7%	3241
Quibdó	11.7%	13.9%	53.3%	15.5%	5.6%	1058
Quindío	9.4%	9.0%	67.2%	13.2%	1.1%	2174
Riohacha	11.4%	12.8%	57.1%	15.5%	3.2%	1682
Rionegro	6.5%	8.6%	66.0%	18.2%	0.7%	826
Risaralda	9.8%	10.1%	64.9%	13.7%	1.6%	2246
Sabaneta	5.6%	5.6%	65.4%	22.1%	1.3%	376
Sahagún	12.2%	10.8%	58.1%	16.2%	2.7%	954
San Andrés	9.3%	10.6%	58.6%	17.0%	4.6%	454
Santa Marta	6.7%	9.5%	67.7%	13.0%	3.2%	4141
Santander	8.5%	8.4%	68.7%	13.4%	1.1%	6451
Sincelejo	8.9%	11.3%	64.2%	13.2%	2.5%	2551

Continúa en la siguiente página

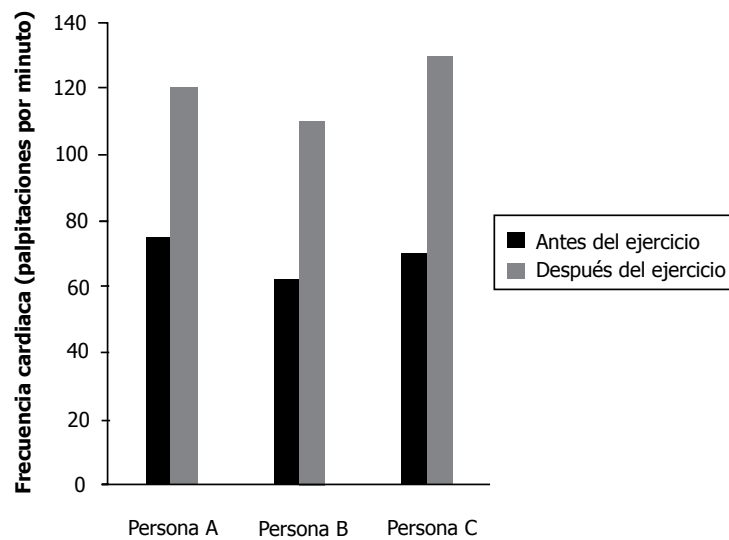
ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	6.3%	7.6%	71.0%	13.8%	1.3%	4151
Sogamoso	4.2%	6.4%	71.0%	17.3%	1.1%	1084
Soledad	8.4%	11.2%	64.6%	14.4%	1.4%	3903
Sucre	13.4%	13.7%	52.9%	17.5%	2.5%	5575
Tolima	9.4%	9.8%	65.2%	13.5%	2.2%	7452
Tuluá	5.6%	7.3%	70.8%	14.5%	1.7%	1617
Tumaco	11.7%	12.4%	50.6%	17.0%	8.3%	1864
Tunja	6.5%	7.3%	68.9%	16.3%	0.9%	1330
Turbo	14.2%	14.3%	50.9%	14.9%	5.7%	1472
Uribe	21.6%	20.4%	37.1%	18.9%	2.0%	402
Valle del Cauca	8.1%	8.7%	66.9%	14.6%	1.7%	7166
Valledupar	8.1%	10.5%	62.5%	15.5%	3.4%	3550
Vaupés	0.0%	40.0%	40.0%	20.0%	0.0%	5
Vichada	10.7%	10.5%	57.2%	15.5%	6.1%	458
Villavicencio	4.3%	6.3%	76.1%	12.5%	0.8%	4036
Yopal	7.1%	7.0%	71.3%	12.9%	1.6%	1315
Zipaquirá	4.4%	8.1%	71.1%	15.8%	0.7%	1028
Colombia	8.3%	9.0%	65.6%	14.8%	2.3%	365872

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



• **Pregunta 24.**

La siguiente gráfica muestra la frecuencia cardiaca promedio de tres personas, antes y después de hacer ejercicio.



Según la gráfica, puede concluirse que

- A. la frecuencia cardiaca aumenta después de hacer ejercicio.
- B. el ejercicio no altera la frecuencia cardiaca.
- C. las personas que hacen ejercicio son más saludables.
- D. la frecuencia cardiaca es igual en las tres personas.

• **Estructura**

<b>Competencia</b>	Indagación
<b>Componente</b>	Entorno vivo
<b>Afirmación</b>	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.
<b>Nivel de desempeño</b>	Satisfactorio
<b>Respuesta Correcta</b>	A

Continúa en la siguiente página

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	38.3%	11.5%	33.2%	10.9%	6.1%	789
Antioquia	47.5%	11.6%	33.0%	6.1%	1.9%	21462
Apartadó	44.0%	14.9%	30.0%	9.7%	1.3%	1238
Arauca	49.8%	10.9%	31.2%	6.4%	1.7%	1996
Armenia	60.9%	11.0%	22.9%	4.7%	0.5%	2026
Atlántico	44.6%	13.5%	28.6%	9.2%	4.1%	4443
Barrancabermeja	54.4%	11.1%	27.1%	6.4%	1.1%	1763
Barranquilla	56.7%	12.0%	23.9%	6.1%	1.3%	8016
Bello	62.9%	8.9%	22.9%	4.5%	0.9%	3061
Bogotá, D.C.	68.1%	8.6%	17.8%	3.3%	2.2%	52956
Bolívar	36.3%	15.8%	33.6%	10.8%	3.6%	7920
Boyacá	50.5%	12.3%	31.0%	5.3%	0.9%	7145
Bucaramanga	66.8%	8.9%	20.5%	3.0%	0.8%	3992
Buenaventura	44.8%	11.7%	31.8%	8.3%	3.4%	2515
Buga	56.2%	10.9%	24.3%	4.4%	4.2%	860
Caldas	50.3%	11.4%	31.8%	5.5%	1.1%	4334
Cali	62.0%	9.3%	22.5%	4.1%	2.0%	14283
Caquetá	43.1%	14.9%	32.4%	7.4%	2.2%	2253
Cartagena	51.6%	12.7%	26.1%	7.1%	2.5%	8170
Cartago	57.0%	11.3%	25.0%	5.5%	1.3%	800
Casanare	43.3%	12.7%	35.5%	6.6%	1.8%	2137
Cauca	41.8%	12.6%	35.1%	7.1%	3.4%	8851
Cesar	43.3%	13.3%	33.1%	7.8%	2.4%	6077
Chocó	34.7%	13.8%	34.3%	11.6%	5.7%	2790
Chía	72.3%	7.4%	16.7%	2.2%	1.3%	968
Ciénaga	44.6%	10.9%	32.3%	8.2%	4.0%	1119
Cundinamarca	58.4%	11.2%	25.0%	4.6%	0.9%	11868
Córdoba	39.2%	14.7%	34.8%	9.0%	2.3%	9379
Cúcuta	57.1%	10.8%	25.7%	5.7%	0.8%	5493
Dosquebradas	58.9%	9.2%	27.2%	3.8%	1.0%	1247
Duitama	71.2%	8.7%	18.0%	2.0%	0.1%	1037
Envigado	76.1%	5.9%	15.1%	2.6%	0.3%	1222
Facatativá	66.2%	8.1%	21.7%	3.6%	0.4%	1068
Florencia	47.6%	14.3%	29.9%	6.6%	1.6%	1472
Floridablanca	67.3%	8.4%	20.2%	2.9%	1.1%	1847
Fusagasugá	64.5%	10.9%	20.2%	3.7%	0.8%	1057
Girardot	55.9%	10.2%	25.4%	5.9%	2.6%	778

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	58.4%	10.4%	25.8%	4.8%	0.6%	1013
Guainía	0.0%	50.0%	50.0%	0.0%	0.0%	2
Guaviare	40.3%	14.7%	35.0%	6.3%	3.7%	712
Huila	46.6%	13.4%	33.0%	5.9%	1.1%	6391
Ibagué	60.8%	10.4%	22.7%	4.9%	1.3%	3972
Ipiales	62.4%	9.4%	22.6%	4.3%	1.3%	1003
Itagüí	63.2%	9.8%	20.5%	5.0%	1.5%	1363
Jamundí	48.3%	12.3%	30.6%	6.6%	2.2%	867
La Guajira	42.9%	12.9%	32.0%	9.3%	2.9%	2473
Lorica	41.7%	14.8%	31.7%	8.9%	3.0%	1152
Magangué	40.1%	15.2%	33.8%	7.9%	2.9%	1221
Magdalena	36.6%	13.9%	34.7%	10.4%	4.4%	6256
Maicao	43.1%	14.1%	27.3%	9.6%	5.9%	1430
Malambo	48.6%	12.8%	28.1%	6.7%	3.8%	946
Manizales	63.6%	8.6%	23.4%	3.8%	0.5%	2325
Medellín	59.1%	10.3%	24.3%	5.3%	1.0%	16066
Meta	48.0%	12.8%	31.0%	5.9%	2.3%	3964
Montería	48.7%	13.6%	28.7%	7.3%	1.7%	3787
Mosquera	69.7%	7.6%	19.7%	2.7%	0.3%	880
Nariño	48.2%	10.9%	32.4%	5.6%	2.9%	7159
Neiva	56.5%	11.6%	25.8%	4.9%	1.2%	3001
Norte de Santander	50.3%	11.7%	30.8%	6.2%	0.9%	5716
Palmira	64.1%	9.2%	21.7%	3.7%	1.3%	2080
Pasto	63.2%	9.9%	22.8%	3.7%	0.4%	3135
Pereira	59.8%	9.9%	25.6%	3.6%	1.1%	3512
Piedecuesta	62.6%	10.7%	21.8%	4.5%	0.4%	1104
Pitalito	51.3%	13.1%	30.2%	4.5%	0.9%	1264
Popayán	61.7%	9.0%	24.2%	3.5%	1.6%	2084
Putumayo	44.2%	14.0%	32.7%	7.8%	1.3%	3241
Quibdó	38.7%	14.9%	30.8%	11.7%	3.9%	1058
Quindío	51.1%	11.1%	31.0%	5.9%	0.9%	2174
Riohacha	43.5%	13.3%	30.7%	9.6%	2.9%	1682
Rionegro	67.7%	7.7%	21.5%	2.5%	0.5%	826
Risaralda	48.6%	11.0%	32.9%	6.0%	1.5%	2246
Sabaneta	72.3%	7.2%	17.6%	2.4%	0.5%	376
Sahagún	44.3%	12.3%	33.8%	7.9%	1.8%	954
San Andrés	49.8%	15.2%	21.8%	8.8%	4.4%	454
Santa Marta	51.6%	12.1%	27.6%	5.9%	2.8%	4141
Santander	52.8%	11.1%	30.8%	4.4%	0.9%	6451
Sincedejo	55.3%	11.4%	24.5%	7.0%	1.8%	2551

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	62.9%	10.8%	21.6%	3.7%	1.0%	4151
Sogamoso	69.6%	7.6%	19.7%	2.8%	0.3%	1084
Soledad	56.7%	11.5%	24.7%	6.3%	0.8%	3903
Sucre	39.7%	14.9%	34.1%	8.9%	2.3%	5575
Tolima	46.4%	12.7%	32.6%	6.4%	1.9%	7452
Tuluá	63.0%	9.2%	22.6%	4.5%	0.7%	1617
Tumaco	34.5%	14.6%	33.9%	9.3%	7.6%	1864
Tunja	69.0%	8.0%	18.8%	3.5%	0.6%	1330
Turbo	36.1%	13.5%	35.0%	9.7%	5.6%	1472
Uribe	29.9%	14.7%	42.0%	11.4%	2.0%	402
Valle del Cauca	53.2%	10.9%	29.1%	5.3%	1.5%	7166
Valledupar	49.5%	11.4%	29.7%	6.5%	2.8%	3550
Vaupés	40.0%	20.0%	40.0%	0.0%	0.0%	5
Vichada	40.0%	14.0%	33.2%	7.2%	5.7%	458
Villavicencio	62.5%	10.2%	22.5%	4.4%	0.4%	4036
Yopal	57.3%	10.6%	26.3%	4.9%	0.8%	1315
Zipaquirá	63.8%	10.6%	22.1%	3.1%	0.4%	1028
Colombia	54.1%	11.3%	27.0%	5.8%	1.9%	365872

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

• **Pregunta 25.**

Pedro quería hacer una clasificación y escogió dos animales, la rata y la rana. A la rata la puso en un grupo y a la rana en otro. ¿Qué característica, desde el punto de vista de las ciencias naturales, tuvo en cuenta Pedro para clasificarlos?

- A.** Uno se reproduce y el otro no.
- B.** Uno es mamífero y el otro es anfibio.
- C.** Uno es un factor biótico y el otro es abiótico.
- D.** Uno produce alimento y el otro lo consume.

• **Estructura**

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

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

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	12.7%	44.2%	16.7%	19.8%	6.6%	789
Antioquia	13.2%	48.9%	18.7%	17.1%	2.1%	21462
Apartadó	17.3%	41.7%	21.6%	17.9%	1.6%	1238
Arauca	12.8%	52.5%	17.9%	15.1%	1.7%	1996
Armenia	12.9%	54.6%	18.6%	13.1%	0.8%	2026
Atlántico	15.5%	42.7%	18.3%	19.4%	4.1%	4443
Barrancabermeja	15.1%	50.3%	17.6%	15.7%	1.4%	1763
Barranquilla	14.8%	49.0%	18.6%	16.1%	1.5%	8016
Bello	14.3%	49.9%	21.1%	13.8%	0.9%	3061
Bogotá, D.C.	12.3%	58.0%	16.4%	10.9%	2.3%	52956
Bolívar	14.1%	41.1%	19.0%	21.7%	4.0%	7920
Boyacá	12.0%	52.6%	20.0%	14.4%	1.0%	7145
Bucaramanga	13.2%	58.6%	16.4%	11.1%	0.7%	3992
Buenaventura	15.6%	45.1%	16.6%	18.7%	4.0%	2515
Buga	14.5%	51.7%	16.5%	12.7%	4.5%	860
Caldas	12.9%	52.6%	17.6%	15.6%	1.3%	4334

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## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Cali	13.0%	53.8%	17.9%	12.9%	2.3%	14283
Caquetá	12.8%	50.4%	17.2%	17.3%	2.3%	2253
Cartagena	14.9%	45.7%	18.5%	18.0%	2.9%	8170
Cartago	13.8%	49.6%	21.1%	13.9%	1.6%	800
Casanare	11.8%	55.3%	15.7%	15.5%	1.7%	2137
Cauca	13.0%	50.6%	15.2%	17.5%	3.8%	8851
Cesar	14.0%	49.1%	16.2%	18.3%	2.4%	6077
Chocó	14.5%	39.2%	17.1%	23.3%	5.8%	2790
Chía	9.6%	65.6%	15.0%	8.7%	1.1%	968
Ciénaga	14.4%	46.6%	13.9%	21.1%	4.0%	1119
Cundinamarca	12.2%	58.6%	15.7%	12.5%	1.0%	11868
Córdoba	13.6%	45.7%	17.7%	20.4%	2.5%	9379
Cúcuta	14.6%	52.5%	17.9%	14.0%	0.9%	5493
Dosquebradas	14.4%	55.2%	16.1%	13.6%	0.7%	1247
Duitama	9.8%	65.4%	17.0%	7.6%	0.2%	1037
Envigado	11.7%	62.7%	15.7%	9.6%	0.3%	1222
Facatativá	11.2%	61.5%	14.0%	12.6%	0.7%	1068
Florencia	14.2%	47.6%	17.2%	19.5%	1.6%	1472
Floridablanca	12.8%	60.9%	15.2%	10.1%	1.1%	1847
Fusagasugá	12.2%	56.1%	18.2%	12.7%	0.9%	1057
Girardot	13.0%	54.0%	16.7%	13.8%	2.6%	778
Girón	14.5%	50.4%	18.9%	15.3%	0.9%	1013
Guainía	0.0%	0.0%	50.0%	50.0%	0.0%	2
Guaviare	16.4%	46.6%	17.7%	15.2%	4.1%	712
Huila	13.4%	50.2%	18.1%	17.2%	1.1%	6391
Ibagué	13.2%	54.6%	17.7%	13.1%	1.4%	3972
Ipiales	10.2%	60.5%	14.8%	13.5%	1.1%	1003
Itagüí	15.7%	47.2%	21.7%	13.5%	1.8%	1363
Jamundí	12.6%	55.5%	15.9%	13.8%	2.2%	867
La Guajira	14.5%	44.2%	18.0%	20.4%	3.0%	2473
Lorica	14.7%	43.0%	19.4%	19.6%	3.4%	1152
Magangué	16.6%	39.2%	19.0%	22.1%	3.0%	1221
Magdalena	14.9%	40.6%	16.9%	22.9%	4.7%	6256
Maicao	13.4%	40.6%	19.0%	20.8%	6.2%	1430
Malambo	15.0%	44.9%	17.7%	19.1%	3.3%	946
Manizales	11.8%	56.1%	16.9%	14.3%	0.9%	2325
Medellín	14.8%	49.3%	20.2%	14.5%	1.2%	16066
Meta	14.1%	50.0%	18.5%	14.9%	2.5%	3964
Montería	14.0%	44.8%	21.5%	17.8%	2.0%	3787
Mosquera	13.2%	60.7%	15.5%	10.2%	0.5%	880

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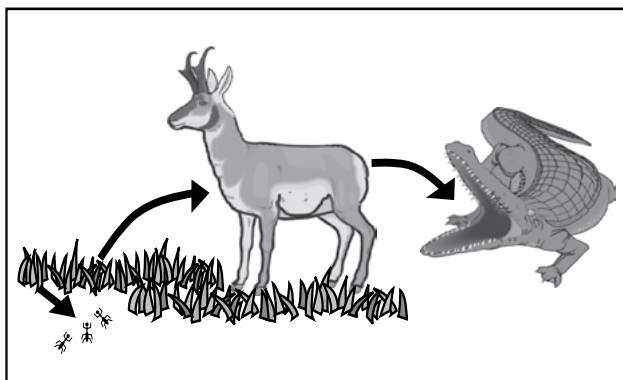
ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Nariño	11.1%	55.7%	14.7%	15.4%	3.2%	7159
Neiva	13.4%	52.0%	18.1%	15.3%	1.1%	3001
Norte de Santander	14.1%	54.0%	17.0%	13.8%	1.1%	5716
Palmira	12.4%	55.2%	17.6%	13.5%	1.3%	2080
Pasto	11.1%	59.2%	17.1%	11.8%	0.7%	3135
Pereira	13.8%	54.1%	16.8%	14.2%	1.2%	3512
Piedecuesta	14.2%	56.2%	17.3%	11.3%	1.0%	1104
Pitalito	14.0%	52.0%	16.2%	16.6%	1.2%	1264
Popayán	12.1%	58.5%	16.1%	11.5%	1.8%	2084
Putumayo	12.2%	49.8%	20.2%	16.1%	1.6%	3241
Quibdó	15.3%	38.8%	20.3%	21.2%	4.3%	1058
Quindío	12.6%	51.4%	18.1%	16.4%	1.5%	2174
Riohacha	15.2%	45.2%	17.5%	18.6%	3.4%	1682
Rionegro	13.0%	52.9%	21.2%	11.9%	1.1%	826
Risaralda	12.9%	51.4%	16.4%	17.1%	2.1%	2246
Sabaneta	16.2%	55.1%	17.0%	11.2%	0.5%	376
Sahagún	13.1%	51.8%	15.2%	18.1%	1.8%	954
San Andrés	14.8%	40.1%	22.5%	18.3%	4.4%	454
Santa Marta	15.7%	46.7%	16.4%	17.9%	3.3%	4141
Santander	11.1%	57.9%	15.6%	14.4%	1.0%	6451
Sincelejo	13.5%	48.8%	18.6%	17.3%	1.8%	2551
Soacha	14.2%	53.6%	18.8%	12.3%	1.2%	4151
Sogamoso	11.7%	62.0%	16.9%	9.1%	0.3%	1084
Soledad	15.3%	46.6%	19.5%	17.6%	1.1%	3903
Sucre	13.7%	43.6%	20.0%	19.9%	2.7%	5575
Tolima	13.7%	50.7%	16.9%	16.6%	2.1%	7452
Tuluá	13.8%	54.9%	15.7%	14.3%	1.4%	1617
Tumaco	13.2%	42.2%	16.6%	20.1%	7.9%	1864
Tunja	10.3%	61.6%	15.6%	11.7%	0.8%	1330
Turbo	14.9%	36.8%	18.5%	24.2%	5.7%	1472
Uribe	11.4%	47.0%	17.2%	21.6%	2.7%	402
Valle del Cauca	13.7%	51.3%	18.3%	15.0%	1.7%	7166
Valledupar	14.8%	47.6%	15.9%	18.6%	3.1%	3550
Vaupés	0.0%	40.0%	0.0%	60.0%	0.0%	5
Vichada	13.3%	52.0%	13.5%	14.6%	6.6%	458
Villavicencio	13.0%	53.2%	20.1%	13.0%	0.7%	4036
Yopal	11.8%	55.3%	18.9%	12.9%	1.1%	1315
Zipaquirá	13.5%	60.7%	15.0%	10.2%	0.6%	1028
Colombia	13.4%	51.6%	17.6%	15.3%	2.1%	365872

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

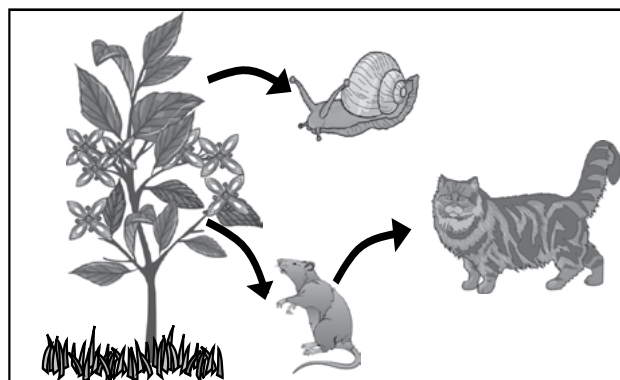
• **Pregunta 26.**

\*Observa estas dos cadenas alimentarias.

Cadena alimentaria 1



Cadena alimentaria 2



Según estas dos cadenas, ¿cuáles seres vivos ocupan el mismo nivel trófico?

- A. Las hormigas y el pasto.
- B. El venado y el gato.
- C. El cocodrilo y el gato.
- D. El cocodrilo y el ratón.

\* -Pregunta modificada respecto a su versión original.

• **Estructura**

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

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

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	26.9%	19.3%	36.1%	11.5%	6.2%	789
Antioquia	25.6%	17.6%	43.4%	10.9%	2.4%	21462
Apartadó	22.9%	17.0%	46.9%	11.9%	1.3%	1238
Arauca	24.9%	17.9%	45.2%	10.0%	1.9%	1996
Armenia	23.0%	15.4%	49.9%	10.9%	0.7%	2026
Atlántico	21.5%	20.7%	39.6%	13.9%	4.3%	4443
Barrancabermeja	24.5%	16.9%	46.5%	10.3%	1.8%	1763
Barranquilla	20.7%	17.0%	47.5%	12.7%	2.0%	8016
Bello	21.0%	17.2%	50.0%	10.7%	1.1%	3061
Bogotá, D.C.	19.4%	13.6%	54.1%	10.3%	2.6%	52956
Bolívar	22.7%	21.6%	38.0%	13.4%	4.3%	7920
Boyacá	21.9%	17.5%	48.4%	11.0%	1.1%	7145
Bucaramanga	21.8%	13.4%	54.1%	9.4%	1.3%	3992
Buenaventura	24.0%	19.8%	39.9%	12.4%	3.9%	2515
Buga	26.6%	14.8%	43.6%	10.3%	4.7%	860
Caldas	30.2%	15.9%	42.1%	10.1%	1.7%	4334
Cali	25.1%	15.1%	47.0%	10.3%	2.5%	14283
Caquetá	29.3%	17.6%	40.1%	10.7%	2.3%	2253
Cartagena	19.2%	18.3%	46.1%	13.1%	3.2%	8170
Cartago	22.9%	16.3%	47.9%	11.1%	1.9%	800
Casanare	26.3%	18.2%	43.2%	9.9%	2.2%	2137
Cauca	29.4%	17.9%	37.5%	10.9%	4.4%	8851
Cesar	25.9%	17.5%	43.3%	10.6%	2.7%	6077
Chocó	24.7%	21.2%	32.7%	14.9%	6.6%	2790
Chía	18.6%	13.0%	56.6%	9.9%	1.9%	968
Ciénaga	21.9%	17.7%	44.3%	11.6%	4.5%	1119
Cundinamarca	22.3%	15.1%	51.3%	9.9%	1.4%	11868
Córdoba	26.7%	20.0%	38.4%	12.1%	2.8%	9379
Cúcuta	22.4%	16.4%	49.9%	10.1%	1.2%	5493
Dosquebradas	27.8%	13.3%	47.1%	10.3%	1.5%	1247
Duitama	14.8%	14.5%	60.9%	9.5%	0.3%	1037
Envigado	14.4%	11.5%	64.1%	9.5%	0.5%	1222
Facatativá	21.2%	13.5%	56.1%	8.4%	0.8%	1068
Florencia	26.8%	15.8%	45.2%	10.5%	1.8%	1472
Floridablanca	19.4%	12.9%	57.6%	8.6%	1.5%	1847
Fusagasugá	22.2%	15.3%	51.4%	9.9%	1.1%	1057
Girardot	22.4%	17.4%	47.3%	10.2%	2.8%	778

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	20.5%	16.5%	50.1%	11.7%	1.1%	1013
Guainía	0.0%	50.0%	0.0%	50.0%	0.0%	2
Guaviare	30.1%	16.6%	39.5%	9.3%	4.6%	712
Huila	29.9%	16.3%	42.8%	9.6%	1.4%	6391
Ibagué	24.0%	14.9%	49.9%	9.4%	1.7%	3972
Ipiales	18.9%	15.1%	56.5%	8.1%	1.4%	1003
Itagüí	21.1%	15.8%	50.9%	10.3%	1.8%	1363
Jamundí	29.1%	15.9%	41.9%	10.7%	2.4%	867
La Guajira	23.7%	20.3%	39.4%	12.7%	3.8%	2473
Lorica	22.0%	19.5%	37.9%	15.8%	4.8%	1152
Magangué	22.4%	18.3%	43.3%	12.6%	3.4%	1221
Magdalena	23.5%	21.5%	36.6%	13.2%	5.2%	6256
Maicao	22.8%	21.5%	36.8%	12.0%	6.9%	1430
Malambo	20.1%	19.0%	47.4%	9.9%	3.6%	946
Manizales	23.6%	15.7%	48.8%	11.0%	0.9%	2325
Medellín	21.5%	17.7%	47.4%	12.1%	1.4%	16066
Meta	28.2%	15.7%	42.5%	10.9%	2.7%	3964
Montería	22.4%	19.8%	43.5%	12.3%	2.1%	3787
Mosquera	19.3%	14.1%	54.8%	11.0%	0.8%	880
Nariño	23.1%	17.8%	44.3%	11.2%	3.5%	7159
Neiva	25.7%	15.8%	47.1%	10.2%	1.1%	3001
Norte de Santander	24.9%	15.7%	48.4%	9.6%	1.4%	5716
Palmira	24.9%	13.1%	50.4%	10.1%	1.5%	2080
Pasto	19.7%	15.5%	54.6%	9.1%	1.0%	3135
Pereira	25.5%	14.7%	48.4%	9.7%	1.6%	3512
Piedecuesta	23.3%	15.6%	51.7%	8.9%	0.5%	1104
Pitalito	27.5%	18.4%	43.0%	10.0%	1.1%	1264
Popayán	26.6%	12.9%	48.2%	9.9%	2.4%	2084
Putumayo	27.9%	16.6%	43.3%	10.4%	1.8%	3241
Quibdó	25.0%	22.3%	33.8%	13.8%	5.1%	1058
Quindío	26.7%	15.3%	45.6%	11.1%	1.2%	2174
Riohacha	22.2%	21.0%	41.5%	11.5%	3.7%	1682
Rionegro	20.0%	17.7%	53.5%	8.0%	0.8%	826
Risaralda	30.5%	16.2%	41.5%	9.6%	2.1%	2246
Sabaneta	18.9%	17.0%	55.6%	7.7%	0.8%	376
Sahagún	24.7%	19.3%	42.1%	11.9%	1.9%	954
San Andrés	28.2%	20.7%	37.0%	9.9%	4.2%	454
Santa Marta	22.6%	17.1%	46.2%	10.7%	3.5%	4141
Santander	24.6%	14.1%	50.6%	9.5%	1.3%	6451
Sincelejo	21.4%	19.1%	45.9%	11.3%	2.3%	2551

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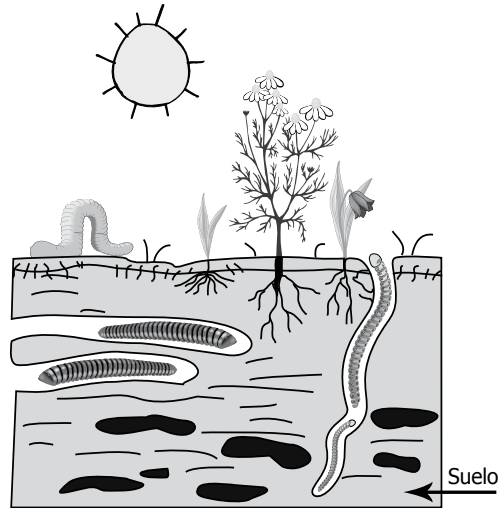


ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	20.8%	16.3%	51.3%	10.5%	1.2%	4151
Sogamoso	16.1%	13.9%	59.2%	10.1%	0.7%	1084
Soledad	20.7%	17.4%	49.4%	11.4%	1.1%	3903
Sucre	24.4%	22.0%	38.4%	12.9%	2.5%	5575
Tolima	28.4%	16.4%	42.5%	10.3%	2.4%	7452
Tuluá	23.8%	15.4%	49.5%	9.8%	1.4%	1617
Tumaco	21.0%	22.3%	35.8%	12.7%	8.3%	1864
Tunja	16.8%	15.1%	57.4%	9.8%	0.9%	1330
Turbo	26.8%	21.1%	32.3%	14.1%	5.6%	1472
Uribe	22.9%	25.4%	34.8%	13.9%	3.0%	402
Valle del Cauca	27.2%	16.2%	44.2%	10.5%	1.9%	7166
Valledupar	25.5%	16.8%	44.3%	10.2%	3.2%	3550
Vaupés	0.0%	20.0%	60.0%	20.0%	0.0%	5
Vichada	28.4%	20.7%	35.6%	10.0%	5.2%	458
Villavicencio	25.1%	14.0%	50.7%	9.5%	0.7%	4036
Yopal	27.5%	14.6%	47.6%	9.1%	1.1%	1315
Zipacquirá	20.9%	15.0%	54.0%	9.6%	0.5%	1028
Colombia	23.4%	16.7%	46.6%	10.9%	2.4%	365872

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

• **Pregunta 27.**

Las lombrices de tierra hacen túneles en el suelo, como lo muestra la siguiente figura:



Cuando hacen los túneles desintegran el material vegetal y animal muerto depositado en la tierra, con lo que enriquecen y airean el suelo. Por eso algunos las llaman "ingenieros del ecosistema".

Un agricultor ve lombrices en el terreno donde va a sembrar y no sabe qué hacer con ellas. La recomendación que tú le darías al agricultor es que

- A. elimine las lombrices porque se comen las hojas de los árboles que va a sembrar.
- B. deje las lombrices porque ayudan a distribuir los nutrientes en el suelo.
- C. elimine las lombrices porque se comen todos los nutrientes y no ayudan a los árboles.
- D. deje las lombrices porque pueden ayudar a eliminar los microorganismos del suelo.

• **Estructura**

<b>Competencia</b>	Explicación de fenómenos
<b>Componente</b>	Entorno vivo
<b>Afirmación</b>	Comprender que existen relaciones entre los seres vivos y el entorno y que ellos dependen de éstas.
<b>Nivel de desempeño</b>	Avanzado
<b>Respuesta Correcta</b>	B

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


ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	19.1%	34.5%	13.3%	28.8%	4.3%	789
Antioquia	15.1%	39.5%	13.0%	30.8%	1.6%	21462
Apartadó	19.2%	34.2%	15.1%	30.0%	1.5%	1238
Arauca	13.9%	42.9%	12.8%	28.7%	1.7%	1996
Armenia	16.8%	37.6%	14.3%	30.8%	0.6%	2026
Atlántico	19.2%	30.5%	17.2%	29.2%	3.8%	4443
Barrancabermeja	19.2%	34.5%	13.7%	31.4%	1.2%	1763
Barranquilla	20.6%	32.9%	17.7%	27.6%	1.3%	8016
Bello	15.0%	39.7%	14.1%	30.4%	0.8%	3061
Bogotá, D.C.	13.6%	39.3%	12.8%	32.0%	2.3%	52956
Bolívar	21.7%	29.7%	15.4%	29.8%	3.5%	7920
Boyacá	15.0%	41.9%	13.8%	28.4%	0.8%	7145
Bucaramanga	13.9%	38.6%	13.4%	33.2%	1.0%	3992
Buenaventura	19.8%	30.4%	16.3%	29.8%	3.7%	2515
Buga	15.3%	34.7%	15.7%	30.3%	4.0%	860
Caldas	14.4%	40.9%	11.4%	32.1%	1.2%	4334
Cali	15.6%	37.5%	14.2%	30.8%	2.0%	14283
Caquetá	15.7%	41.0%	11.8%	29.7%	1.8%	2253
Cartagena	20.1%	33.7%	16.3%	27.5%	2.4%	8170
Cartago	16.3%	34.9%	14.9%	32.5%	1.5%	800
Casanare	12.8%	40.1%	13.2%	32.1%	1.7%	2137
Cauca	13.6%	42.8%	12.2%	28.2%	3.1%	8851
Cesar	15.3%	39.6%	12.4%	31.1%	1.6%	6077
Chocó	21.4%	29.5%	14.9%	28.7%	5.5%	2790
Chía	12.1%	44.4%	12.3%	29.9%	1.3%	968
Ciénaga	18.5%	34.2%	15.8%	27.6%	3.8%	1119
Cundinamarca	13.8%	42.6%	12.8%	29.8%	0.9%	11868
Córdoba	15.9%	36.9%	13.9%	31.0%	2.3%	9379
Cúcuta	17.5%	36.4%	14.6%	30.8%	0.7%	5493
Dosquebradas	14.1%	38.0%	12.7%	34.2%	1.0%	1247
Duitama	15.0%	41.9%	12.9%	30.0%	0.2%	1037
Envigado	13.3%	42.7%	11.8%	32.0%	0.2%	1222
Facatativá	14.6%	41.9%	12.6%	30.2%	0.6%	1068
Florencia	16.2%	38.7%	13.9%	29.7%	1.5%	1472
Floridablanca	13.2%	39.3%	13.4%	33.6%	0.6%	1847
Fusagasugá	15.5%	41.0%	11.9%	30.7%	0.9%	1057
Girardot	16.3%	37.7%	12.9%	30.5%	2.7%	778

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	13.0%	36.0%	14.3%	35.7%	0.9%	1013
Guainía	0.0%	50.0%	50.0%	0.0%	0.0%	2
Guaviare	16.4%	37.1%	10.1%	32.9%	3.5%	712
Huila	14.0%	40.0%	13.7%	31.5%	0.8%	6391
Ibagué	15.7%	36.6%	14.6%	32.1%	1.0%	3972
Ipiales	15.0%	43.2%	15.4%	25.9%	0.6%	1003
Itagüí	15.8%	39.4%	15.2%	28.0%	1.5%	1363
Jamundí	16.0%	37.0%	13.1%	31.5%	2.3%	867
La Guajira	18.8%	36.0%	15.1%	27.5%	2.6%	2473
Lorica	17.8%	33.5%	15.6%	30.7%	2.3%	1152
Magangué	18.5%	30.0%	16.5%	31.9%	3.1%	1221
Magdalena	19.1%	32.1%	15.3%	29.1%	4.4%	6256
Maicao	25.0%	26.6%	18.3%	25.5%	4.8%	1430
Malambo	16.5%	36.6%	16.4%	27.8%	2.7%	946
Manizales	14.1%	38.5%	12.9%	34.0%	0.5%	2325
Medellín	17.9%	37.1%	14.2%	29.6%	1.1%	16066
Meta	13.7%	40.0%	12.0%	32.1%	2.1%	3964
Montería	17.4%	35.6%	16.2%	29.3%	1.4%	3787
Mosquera	10.9%	41.5%	13.9%	33.4%	0.3%	880
Nariño	12.7%	42.8%	12.5%	29.3%	2.8%	7159
Neiva	15.5%	40.1%	13.8%	29.9%	0.8%	3001
Norte de Santander	13.2%	43.4%	12.3%	30.2%	1.0%	5716
Palmira	14.6%	37.1%	14.7%	32.5%	1.2%	2080
Pasto	15.8%	39.5%	15.0%	29.4%	0.3%	3135
Pereira	14.6%	37.6%	12.8%	33.7%	1.2%	3512
Piedecuesta	14.6%	41.3%	12.4%	31.0%	0.7%	1104
Pitalito	13.3%	41.5%	14.5%	29.7%	1.0%	1264
Popayán	13.4%	44.0%	11.1%	29.6%	1.9%	2084
Putumayo	13.0%	43.8%	12.0%	29.9%	1.3%	3241
Quibdó	20.6%	29.1%	16.2%	29.9%	4.3%	1058
Quindío	15.1%	39.1%	11.7%	33.3%	0.9%	2174
Riohacha	21.3%	33.5%	17.3%	25.9%	2.0%	1682
Rionegro	14.0%	41.3%	13.1%	31.0%	0.6%	826
Risaralda	12.0%	41.8%	12.1%	32.7%	1.5%	2246
Sabaneta	14.6%	38.6%	17.3%	29.0%	0.5%	376
Sahagún	16.4%	38.3%	15.0%	28.8%	1.6%	954
San Andrés	22.5%	31.5%	15.9%	27.1%	3.1%	454
Santa Marta	18.3%	34.3%	16.7%	28.3%	2.4%	4141
Santander	11.8%	44.2%	12.3%	31.0%	0.7%	6451
Sincelejo	15.9%	37.0%	14.1%	31.5%	1.5%	2551

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	15.2%	37.6%	14.5%	31.7%	1.0%	4151
Sogamoso	14.7%	39.8%	12.9%	32.1%	0.6%	1084
Soledad	21.1%	32.1%	18.5%	27.6%	0.7%	3903
Sucre	19.3%	32.0%	15.6%	30.7%	2.4%	5575
Tolima	14.4%	39.6%	13.2%	31.2%	1.5%	7452
Tuluá	14.7%	38.1%	12.1%	33.9%	1.2%	1617
Tumaco	20.0%	25.6%	18.2%	29.0%	7.1%	1864
Tunja	17.0%	37.3%	14.8%	30.4%	0.5%	1330
Turbo	19.6%	28.9%	16.4%	30.0%	5.2%	1472
Uribe	31.8%	24.4%	20.1%	19.9%	3.7%	402
Valle del Cauca	14.9%	40.2%	12.1%	31.5%	1.4%	7166
Valledupar	16.7%	36.6%	15.7%	28.1%	2.8%	3550
Vaupés	0.0%	40.0%	40.0%	20.0%	0.0%	5
Vichada	14.4%	35.4%	15.5%	32.1%	2.6%	458
Villavicencio	15.9%	38.6%	13.7%	31.2%	0.6%	4036
Yopal	12.6%	41.8%	11.7%	32.9%	1.0%	1315
Zipaquirá	16.6%	43.0%	12.8%	27.2%	0.3%	1028
Colombia	15.8%	38.1%	13.9%	30.5%	1.8%	365872

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

- **Pregunta 28.**

Juanita lee en la entrada de un zoológico el siguiente letrero

**“Prohibido dar alimento a los animales”**

En el zoológico está prohibido a los visitantes dar alimento a los animales, porque

- A.** los visitantes les dan más comida a unos animales que a otros.
- B.** los animales dejarían de comer la comida del zoológico.
- C.** los visitantes pueden dar alimentos que les hacen daño a los animales.
- D.** los animales podrían atacar a los visitantes del zoológico.

- **Estructura**

<b>Competencia</b>	Explicación de fenómenos
<b>Componente</b>	CTS
<b>Afirmación</b>	Valorar y comprender la necesidad de seguir hábitos para mantener la salud y el entorno.
<b>Nivel de desempeño</b>	Avanzado
<b>Respuesta Correcta</b>	C



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


ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	11.8%	22.1%	30.7%	30.9%	4.6%	789
Antioquia	8.4%	18.7%	36.5%	34.5%	1.9%	21462
Apartadó	8.3%	22.3%	30.5%	36.8%	2.0%	1238
Arauca	8.4%	19.4%	34.5%	35.9%	1.9%	1996
Armenia	5.8%	18.8%	40.5%	34.2%	0.8%	2026
Atlántico	9.6%	20.0%	30.7%	35.0%	4.7%	4443
Barrancabermeja	7.9%	21.3%	33.7%	35.8%	1.4%	1763
Barranquilla	6.6%	17.5%	34.7%	39.5%	1.7%	8016
Bello	4.7%	19.1%	49.0%	26.4%	0.8%	3061
Bogotá, D.C.	3.8%	14.6%	44.9%	34.2%	2.5%	52956
Bolívar	13.5%	22.9%	28.5%	30.7%	4.4%	7920
Boyacá	8.5%	15.2%	35.4%	39.8%	1.2%	7145
Bucaramanga	4.7%	17.3%	46.2%	30.9%	0.9%	3992
Buenaventura	9.9%	19.4%	31.8%	34.7%	4.2%	2515
Buga	5.9%	19.0%	39.8%	31.4%	4.0%	860
Caldas	7.2%	17.8%	33.1%	40.4%	1.5%	4334
Cali	4.6%	17.3%	46.6%	29.2%	2.2%	14283
Caquetá	11.5%	20.6%	32.9%	32.7%	2.2%	2253
Cartagena	8.5%	19.1%	35.2%	34.4%	2.9%	8170
Cartago	6.0%	17.0%	43.4%	32.1%	1.5%	800
Casanare	7.5%	18.7%	32.8%	38.9%	2.1%	2137
Cauca	10.3%	19.7%	32.7%	33.9%	3.5%	8851
Cesar	9.7%	20.1%	28.3%	39.7%	2.2%	6077
Chocó	14.9%	20.3%	30.0%	28.5%	6.3%	2790
Chía	3.0%	11.8%	47.1%	37.0%	1.1%	968
Ciénaga	8.9%	19.1%	28.6%	38.6%	4.7%	1119
Cundinamarca	5.8%	14.0%	35.9%	43.1%	1.2%	11868
Córdoba	12.7%	20.9%	30.9%	32.9%	2.5%	9379
Cúcuta	6.2%	18.8%	36.2%	37.8%	1.0%	5493
Dosquebradas	4.1%	16.2%	48.0%	30.8%	0.9%	1247
Duitama	3.6%	12.2%	41.9%	41.9%	0.4%	1037
Envigado	2.6%	15.3%	63.2%	18.7%	0.2%	1222
Facatativá	5.0%	12.7%	38.7%	43.0%	0.7%	1068
Florencia	8.4%	23.6%	33.0%	33.2%	1.8%	1472
Floridablanca	3.5%	15.2%	50.1%	30.5%	0.7%	1847
Fusagasugá	4.3%	15.3%	36.4%	43.2%	0.8%	1057
Girardot	5.4%	21.3%	27.5%	44.0%	1.8%	778

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	5.7%	19.8%	40.1%	33.5%	0.9%	1013
Guainía	0.0%	50.0%	50.0%	0.0%	0.0%	2
Guaviare	10.0%	21.8%	30.3%	33.4%	4.5%	712
Huila	8.5%	19.4%	32.1%	38.9%	1.2%	6391
Ibagué	4.8%	19.1%	39.6%	35.3%	1.3%	3972
Ipiales	6.0%	12.5%	39.6%	41.0%	1.0%	1003
Itagüí	7.0%	17.2%	50.3%	23.8%	1.8%	1363
Jamundí	6.7%	18.2%	36.9%	35.5%	2.7%	867
La Guajira	11.3%	20.4%	29.2%	35.4%	3.7%	2473
Lorica	13.6%	20.5%	29.6%	32.6%	3.6%	1152
Magangué	11.6%	21.1%	29.1%	34.9%	3.3%	1221
Magdalena	12.6%	21.0%	27.0%	34.6%	4.9%	6256
Maicao	11.0%	21.7%	29.2%	32.0%	6.1%	1430
Malambo	9.6%	18.1%	30.3%	38.2%	3.8%	946
Manizales	3.8%	17.3%	44.3%	34.1%	0.5%	2325
Medellín	7.1%	19.6%	48.5%	23.6%	1.3%	16066
Meta	8.0%	20.2%	32.0%	37.1%	2.6%	3964
Montería	9.6%	19.3%	34.9%	34.5%	1.7%	3787
Mosquera	3.6%	14.4%	43.2%	38.2%	0.6%	880
Nariño	9.3%	14.5%	36.7%	36.3%	3.1%	7159
Neiva	6.4%	20.2%	34.9%	37.4%	1.0%	3001
Norte de Santander	9.4%	17.7%	32.8%	38.8%	1.2%	5716
Palmira	4.3%	17.9%	43.5%	32.9%	1.3%	2080
Pasto	4.4%	12.8%	48.7%	33.4%	0.7%	3135
Pereira	4.6%	17.7%	48.2%	28.3%	1.2%	3512
Piedecuesta	5.9%	18.3%	45.2%	30.2%	0.5%	1104
Pitalito	4.7%	17.6%	39.3%	36.8%	1.6%	1264
Popayán	4.5%	17.2%	41.0%	35.5%	1.9%	2084
Putumayo	9.1%	20.8%	36.0%	32.3%	1.8%	3241
Quibdó	12.4%	22.2%	32.3%	28.5%	4.5%	1058
Quindío	7.0%	19.2%	35.9%	36.6%	1.3%	2174
Riohacha	9.9%	20.9%	30.7%	36.3%	2.3%	1682
Rionegro	3.9%	15.5%	46.0%	33.7%	1.0%	826
Risaralda	7.0%	15.5%	36.7%	38.8%	2.0%	2246
Sabaneta	5.9%	19.1%	56.1%	17.6%	1.3%	376
Sahagún	12.3%	19.6%	34.5%	32.4%	1.3%	954
San Andrés	7.9%	24.4%	30.6%	33.5%	3.5%	454
Santa Marta	7.4%	19.7%	30.7%	39.4%	2.8%	4141
Santander	7.9%	15.7%	37.3%	38.1%	1.0%	6451
Sincelejo	7.7%	21.1%	31.7%	37.7%	1.8%	2551

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	4.5%	14.9%	38.5%	41.0%	1.1%	4151
Sogamoso	4.1%	10.6%	44.9%	39.9%	0.5%	1084
Soledad	6.6%	16.9%	33.5%	41.6%	1.5%	3903
Sucre	13.3%	23.6%	28.8%	31.5%	2.8%	5575
Tolima	9.1%	19.7%	29.6%	39.6%	1.9%	7452
Tuluá	4.8%	16.5%	43.8%	33.6%	1.2%	1617
Tumaco	12.7%	18.9%	30.9%	29.7%	7.8%	1864
Tunja	5.9%	12.3%	40.5%	40.7%	0.7%	1330
Turbo	12.6%	22.1%	28.1%	31.0%	6.1%	1472
Uribe	17.7%	22.1%	29.1%	26.9%	4.2%	402
Valle del Cauca	6.3%	17.5%	36.5%	38.1%	1.6%	7166
Valledupar	8.8%	19.4%	31.0%	37.3%	3.5%	3550
Vaupés	0.0%	20.0%	60.0%	20.0%	0.0%	5
Vichada	13.3%	21.4%	27.5%	34.7%	3.1%	458
Villavicencio	5.4%	19.8%	40.6%	33.4%	0.8%	4036
Yopal	6.2%	20.2%	30.7%	41.3%	1.6%	1315
Zipaquirá	4.4%	12.2%	40.8%	42.3%	0.4%	1028
Colombia	7.4%	17.9%	37.7%	34.8%	2.2%	365872

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

## • Pregunta 29.

Andrés tiene un globo de papel con una llama en su interior. El globo permanece elevado y está amarrado con una cuerda a un poste. La llama es importante para que el globo se eleve porque

- A. libera energía que mueve el globo.
- B. calienta el aire dentro del globo permitiéndole flotar.
- C. crea gases que permiten que el globo flote.
- D. le transmite parte de su movimiento al globo.

## • Estructura

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

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	18.4%	34.1%	26.4%	16.5%	4.7%	789
Antioquia	18.2%	41.3%	22.2%	16.5%	1.7%	21462
Apartadó	22.0%	34.1%	24.9%	17.7%	1.4%	1238
Arauca	20.5%	36.8%	26.3%	14.7%	1.7%	1996
Armenia	18.4%	45.1%	22.4%	13.4%	0.8%	2026
Atlántico	20.1%	34.7%	25.5%	15.5%	4.3%	4443
Barrancabermeja	18.8%	40.8%	25.6%	13.5%	1.2%	1763
Barranquilla	19.5%	40.5%	25.2%	13.4%	1.4%	8016
Bello	15.7%	49.5%	21.6%	12.4%	0.8%	3061
Bogotá, D.C.	14.9%	45.8%	24.2%	12.8%	2.4%	52956
Bolívar	24.5%	32.1%	23.4%	16.4%	3.6%	7920
Boyacá	20.2%	39.6%	20.9%	18.3%	1.0%	7145
Bucaramanga	14.9%	46.3%	25.7%	12.2%	0.9%	3992
Buenaventura	21.7%	35.9%	23.8%	15.7%	3.0%	2515
Buga	14.7%	39.0%	28.5%	13.5%	4.4%	860
Caldas	18.5%	42.6%	22.7%	14.8%	1.4%	4334
Cali	16.0%	43.3%	26.2%	12.4%	2.1%	14283

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Caquetá	22.1%	33.8%	24.8%	17.5%	1.7%	2253
Cartagena	20.6%	40.1%	24.7%	11.9%	2.6%	8170
Cartago	16.3%	44.8%	23.9%	13.5%	1.6%	800
Casanare	19.3%	37.7%	24.3%	16.9%	1.7%	2137
Cauca	19.2%	40.5%	21.2%	15.8%	3.3%	8851
Cesar	20.1%	37.3%	25.6%	15.0%	2.0%	6077
Chocó	25.8%	30.0%	21.3%	17.5%	5.4%	2790
Chía	12.7%	52.1%	24.9%	8.6%	1.8%	968
Ciénaga	19.6%	35.5%	27.3%	13.4%	4.2%	1119
Cundinamarca	17.0%	44.0%	23.1%	14.8%	1.1%	11868
Córdoba	21.4%	34.9%	23.8%	17.6%	2.2%	9379
Cúcuta	16.5%	43.3%	26.0%	13.3%	0.9%	5493
Dosquebradas	14.0%	46.9%	23.1%	15.2%	0.7%	1247
Duitama	14.8%	47.3%	27.6%	10.1%	0.3%	1037
Envigado	9.9%	57.4%	25.5%	7.0%	0.2%	1222
Facatativá	15.4%	46.2%	22.5%	15.5%	0.4%	1068
Florencia	19.8%	40.1%	22.9%	15.6%	1.5%	1472
Floridablanca	14.0%	47.3%	26.6%	11.6%	0.5%	1847
Fusagasugá	18.1%	42.9%	25.7%	12.8%	0.6%	1057
Girardot	15.9%	43.2%	24.3%	14.4%	2.2%	778
Girón	17.0%	43.0%	26.5%	12.8%	0.7%	1013
Guainía	0.0%	50.0%	50.0%	0.0%	0.0%	2
Guaviare	19.2%	34.8%	26.1%	16.4%	3.4%	712
Huila	17.8%	39.6%	23.6%	18.1%	0.9%	6391
Ibagué	15.0%	43.1%	26.8%	13.9%	1.1%	3972
Ipiales	16.6%	47.4%	22.1%	13.3%	0.7%	1003
Itagüí	15.6%	52.4%	18.0%	12.4%	1.6%	1363
Jamundí	17.0%	40.0%	29.5%	11.4%	2.1%	867
La Guajira	22.0%	37.2%	22.2%	15.8%	2.7%	2473
Lorica	24.0%	31.0%	23.9%	18.1%	3.0%	1152
Magangué	22.2%	35.2%	23.9%	16.1%	2.6%	1221
Magdalena	21.8%	33.7%	24.8%	15.4%	4.3%	6256
Maicao	24.9%	32.2%	23.1%	14.9%	5.0%	1430
Malambo	19.7%	36.4%	27.6%	12.7%	3.7%	946
Manizales	14.0%	50.3%	21.5%	13.4%	0.7%	2325
Medellín	17.6%	46.3%	21.8%	13.2%	1.2%	16066
Meta	18.9%	36.4%	27.1%	15.5%	2.1%	3964
Montería	18.7%	38.3%	25.8%	15.7%	1.5%	3787
Mosquera	13.5%	49.4%	24.2%	12.5%	0.3%	880
Nariño	16.3%	41.1%	24.4%	15.3%	2.9%	7159

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Neiva	16.9%	42.9%	24.8%	14.4%	1.0%	3001
Norte de Santander	18.9%	40.0%	24.8%	15.3%	1.0%	5716
Palmira	14.5%	44.3%	28.8%	11.3%	1.2%	2080
Pasto	14.1%	49.5%	24.3%	11.5%	0.5%	3135
Pereira	15.7%	45.9%	23.3%	13.7%	1.4%	3512
Piedecuesta	16.9%	40.1%	27.3%	15.1%	0.5%	1104
Pitalito	18.2%	39.9%	23.7%	16.9%	1.3%	1264
Popayán	11.7%	51.2%	23.3%	12.3%	1.5%	2084
Putumayo	16.6%	38.4%	26.1%	17.5%	1.4%	3241
Quibdó	25.0%	32.2%	21.3%	17.3%	4.3%	1058
Quindío	19.0%	40.8%	22.9%	16.7%	0.6%	2174
Riohacha	22.6%	36.0%	24.1%	15.4%	2.0%	1682
Rionegro	12.0%	51.1%	22.3%	14.2%	0.5%	826
Risaralda	16.3%	41.6%	23.4%	17.2%	1.5%	2246
Sabaneta	10.9%	53.2%	23.9%	11.4%	0.5%	376
Sahagún	20.0%	35.4%	27.7%	15.4%	1.5%	954
San Andrés	27.3%	37.0%	20.3%	11.9%	3.5%	454
Santa Marta	19.6%	40.9%	23.2%	13.7%	2.6%	4141
Santander	18.5%	39.3%	24.2%	17.2%	0.8%	6451
Sincedejo	18.4%	40.0%	27.4%	12.5%	1.6%	2551
Soacha	17.2%	45.4%	21.8%	14.7%	0.9%	4151
Sogamoso	14.5%	45.8%	25.5%	13.8%	0.5%	1084
Soledad	18.1%	42.2%	24.9%	13.9%	0.8%	3903
Sucre	22.7%	34.1%	23.7%	17.0%	2.4%	5575
Tolima	18.2%	39.7%	23.5%	16.7%	1.8%	7452
Tuluá	15.1%	41.6%	29.6%	12.9%	0.9%	1617
Tumaco	22.9%	30.5%	21.6%	17.2%	7.8%	1864
Tunja	16.0%	43.7%	23.8%	15.3%	1.2%	1330
Turbo	26.6%	28.3%	22.1%	17.4%	5.6%	1472
Uribe	24.4%	31.6%	20.4%	20.4%	3.2%	402
Valle del Cauca	16.6%	41.4%	25.1%	15.1%	1.8%	7166
Valledupar	17.9%	38.8%	26.4%	14.0%	3.0%	3550
Vaupés	40.0%	20.0%	20.0%	20.0%	0.0%	5
Vichada	20.3%	34.9%	23.1%	19.7%	2.0%	458
Villavicencio	15.5%	41.7%	29.0%	13.1%	0.7%	4036
Yopal	17.1%	41.7%	26.5%	13.6%	1.0%	1315
Zipaquirá	15.0%	47.4%	22.5%	14.6%	0.6%	1028
Colombia	17.9%	41.4%	24.1%	14.6%	2.0%	365872

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

• **Pregunta 30.**

Las plantas y los animales son recursos naturales

- A.** renovables, porque a medida que mueren unas plantas y animales nacen otros.
- B.** no renovables, porque no se pueden obtener las mismas plantas y animales.
- C.** no renovables, porque tienen vida y se conservan a través del tiempo.
- D.** renovables, porque se consumen por completo hasta agotarse en el planeta.

• **Estructura**

<b>Competencia</b>	Explicación de fenómenos
<b>Componente</b>	CTS
<b>Afirmación</b>	Comprender el funcionamiento de diferentes objetos a partir de sus usos y propiedades.
<b>Nivel de desempeño</b>	Satisfactorio
<b>Respuesta Correcta</b>	A

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

ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Amazonas	37.0%	18.1%	21.8%	17.4%	5.7%	789
Antioquia	47.2%	17.0%	18.0%	15.9%	1.9%	21462
Apartadó	39.7%	20.8%	19.9%	17.5%	2.2%	1238
Arauca	45.9%	19.3%	18.7%	14.4%	1.7%	1996
Armenia	43.5%	20.0%	21.3%	14.5%	0.6%	2026
Atlántico	39.3%	18.5%	19.5%	17.9%	4.9%	4443
Barrancabermeja	43.1%	19.5%	20.2%	15.7%	1.5%	1763
Barranquilla	46.4%	17.8%	19.1%	15.0%	1.7%	8016
Bello	46.8%	16.9%	20.7%	14.6%	0.9%	3061
Bogotá, D.C.	46.3%	17.2%	20.9%	13.1%	2.5%	52956
Bolívar	35.8%	20.7%	21.0%	18.4%	4.2%	7920
Boyacá	48.8%	18.3%	17.4%	14.3%	1.1%	7145
Bucaramanga	49.4%	15.7%	20.4%	13.3%	1.2%	3992
Buenaventura	46.7%	17.8%	16.6%	15.5%	3.4%	2515
Buga	49.5%	16.7%	17.1%	11.7%	4.9%	860
Caldas	50.1%	16.5%	16.7%	15.4%	1.3%	4334
Cali	49.0%	16.0%	19.1%	13.6%	2.2%	14283
Caquetá	44.5%	18.6%	18.0%	16.7%	2.3%	2253

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## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Cartagena	44.4%	18.9%	18.8%	14.8%	3.1%	8170
Cartago	47.5%	16.8%	17.5%	16.6%	1.6%	800
Casanare	47.5%	17.5%	17.9%	15.1%	2.1%	2137
Cauca	46.4%	16.9%	18.2%	15.0%	3.5%	8851
Cesar	44.6%	18.1%	16.8%	18.3%	2.2%	6077
Chocó	37.5%	18.8%	19.0%	18.4%	6.2%	2790
Chía	49.2%	15.2%	20.8%	13.1%	1.8%	968
Ciénaga	44.1%	17.2%	17.8%	16.1%	4.8%	1119
Cundinamarca	47.7%	17.5%	19.4%	14.3%	1.2%	11868
Córdoba	40.7%	18.8%	19.3%	18.5%	2.6%	9379
Cúcuta	47.1%	17.2%	19.1%	15.7%	1.0%	5493
Dosquebradas	48.7%	17.0%	18.4%	15.0%	1.0%	1247
Duitama	54.5%	16.9%	18.1%	10.2%	0.3%	1037
Envigado	52.9%	14.9%	20.9%	11.0%	0.2%	1222
Facatativá	47.9%	14.9%	21.5%	14.9%	0.7%	1068
Florencia	44.4%	19.7%	18.5%	15.8%	1.5%	1472
Floridablanca	51.4%	15.9%	18.2%	13.6%	0.9%	1847
Fusagasugá	46.2%	19.6%	17.5%	15.6%	1.1%	1057
Girardot	47.4%	17.5%	17.6%	14.3%	3.2%	778
Girón	43.9%	18.5%	20.0%	16.5%	1.1%	1013
Guainía	0.0%	0.0%	50.0%	50.0%	0.0%	2
Guaviare	43.7%	17.8%	17.3%	17.3%	3.9%	712
Huila	46.5%	18.1%	18.1%	16.2%	1.1%	6391
Ibagué	46.5%	17.1%	20.9%	14.1%	1.4%	3972
Ipiales	49.4%	17.2%	19.3%	13.3%	0.8%	1003
Itagüí	46.7%	17.2%	21.5%	12.9%	1.7%	1363
Jamundí	45.9%	17.3%	19.1%	15.0%	2.7%	867
La Guajira	44.6%	18.2%	17.5%	16.4%	3.3%	2473
Lorica	36.8%	22.2%	20.7%	17.2%	3.0%	1152
Magangué	39.8%	19.8%	18.9%	18.7%	2.8%	1221
Magdalena	37.1%	19.6%	20.1%	18.6%	4.7%	6256
Maicao	36.6%	18.7%	20.0%	19.4%	5.2%	1430
Malambo	44.3%	18.1%	16.1%	17.7%	3.9%	946
Manizales	51.1%	16.3%	18.9%	12.9%	0.8%	2325
Medellín	44.2%	17.9%	21.9%	14.5%	1.4%	16066
Meta	46.6%	18.0%	17.7%	15.3%	2.4%	3964
Montería	42.9%	18.9%	19.9%	16.3%	1.9%	3787
Mosquera	50.1%	15.1%	19.5%	14.1%	1.1%	880
Nariño	51.6%	16.6%	15.4%	13.5%	3.0%	7159
Neiva	46.4%	16.7%	21.4%	14.2%	1.3%	3001

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ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Norte de Santander	49.9%	17.8%	16.9%	14.0%	1.3%	5716
Palmira	51.5%	14.2%	18.3%	14.6%	1.4%	2080
Pasto	50.8%	16.6%	18.2%	13.7%	0.7%	3135
Pereira	49.1%	15.7%	20.0%	14.0%	1.1%	3512
Piedecuesta	49.6%	15.9%	16.8%	17.1%	0.6%	1104
Pitalito	44.5%	18.8%	18.7%	16.5%	1.5%	1264
Popayán	50.1%	17.9%	16.4%	13.9%	1.7%	2084
Putumayo	47.7%	18.1%	17.4%	15.3%	1.4%	3241
Quibdó	40.5%	18.8%	17.3%	18.7%	4.6%	1058
Quindío	44.9%	18.1%	19.2%	16.8%	1.0%	2174
Riohacha	42.6%	17.8%	19.4%	17.3%	2.9%	1682
Rionegro	50.5%	16.9%	18.3%	13.8%	0.5%	826
Risaralda	47.1%	16.7%	18.2%	16.2%	1.8%	2246
Sabaneta	49.2%	15.7%	22.6%	12.0%	0.5%	376
Sahagún	43.7%	19.9%	17.3%	17.1%	2.0%	954
San Andrés	37.7%	18.9%	23.8%	16.1%	3.5%	454
Santa Marta	44.7%	17.0%	19.2%	16.6%	2.6%	4141
Santander	52.3%	16.4%	16.2%	14.1%	1.0%	6451
Sincelejo	45.6%	18.7%	17.8%	16.0%	1.8%	2551
Soacha	45.7%	20.2%	19.5%	13.5%	1.0%	4151
Sogamoso	51.0%	19.8%	17.6%	11.3%	0.3%	1084
Soledad	47.1%	17.6%	18.7%	15.4%	1.2%	3903
Sucre	39.2%	20.5%	20.4%	17.0%	2.8%	5575
Tolima	46.2%	17.8%	18.5%	15.8%	1.8%	7452
Tuluá	48.9%	15.9%	16.6%	17.3%	1.4%	1617
Tumaco	35.6%	20.9%	19.4%	15.7%	8.4%	1864
Tunja	44.4%	20.4%	20.8%	13.4%	1.1%	1330
Turbo	35.0%	18.2%	22.1%	18.5%	6.2%	1472
Uribe	37.6%	23.4%	22.1%	14.2%	2.7%	402
Valle del Cauca	47.2%	16.7%	18.5%	15.6%	2.0%	7166
Valledupar	46.5%	15.6%	17.4%	17.2%	3.2%	3550
Vaupés	20.0%	60.0%	20.0%	0.0%	0.0%	5
Vichada	40.6%	19.0%	20.1%	17.5%	2.8%	458
Villavicencio	48.9%	17.1%	18.7%	14.6%	0.7%	4036
Yopal	47.9%	17.9%	17.4%	15.7%	1.1%	1315
Zipaquirá	50.8%	15.8%	18.7%	14.3%	0.5%	1028
Colombia	45.9%	17.6%	19.2%	15.1%	2.2%	365872

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

## • Pregunta 31.

Juan conecta un bombillo a una batería *A* y observa que al cabo de 10 minutos el bombillo se apaga. Al conectar el mismo bombillo a otra batería *B* encuentra que el bombillo dura 20 minutos encendido.

Con este experimento se puede saber que

- A.** la batería *B* es más grande que la batería *A*.
- B.** la batería *B* tiene mayor cantidad de energía.
- C.** a los 10 minutos el bombillo se funde.
- D.** a los 10 minutos se desconectan las baterías.

## • Estructura

<b>Competencia</b>	Indagación
<b>Componente</b>	Entorno físico
<b>Afirmación</b>	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.
<b>Nivel de desempeño</b>	Satisfactorio
<b>Respuesta Correcta</b>	B

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	14.4%	50.2%	11.0%	18.3%	6.1%	789
Antioquia	14.2%	62.0%	9.8%	11.5%	2.6%	21462
Apartadó	16.9%	55.3%	11.1%	13.8%	2.8%	1238
Arauca	14.2%	62.3%	10.9%	10.3%	2.3%	1996
Armenia	14.3%	63.0%	9.9%	11.0%	1.9%	2026
Atlántico	16.3%	52.4%	11.3%	14.5%	5.6%	4443
Barrancabermeja	14.0%	60.2%	10.9%	11.6%	3.3%	1763
Barranquilla	14.2%	63.0%	9.5%	10.6%	2.7%	8016
Bello	12.7%	68.5%	8.9%	8.2%	1.6%	3061
Bogotá, D.C.	11.1%	71.1%	7.8%	6.8%	3.2%	52956
Bolívar	17.2%	47.2%	13.5%	17.2%	4.9%	7920
Boyacá	14.3%	62.3%	10.7%	10.9%	1.8%	7145
Bucaramanga	10.8%	71.5%	7.9%	7.7%	2.1%	3992
Buenaventura	16.9%	54.3%	11.7%	13.0%	4.1%	2515
Buga	14.1%	62.7%	9.1%	8.6%	5.6%	860

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ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Caldas	14.1%	63.8%	10.1%	9.9%	2.1%	4334
Cali	13.1%	66.7%	8.5%	8.5%	3.2%	14283
Caquetá	14.8%	57.2%	11.8%	13.5%	2.7%	2253
Cartagena	14.8%	57.8%	11.6%	12.0%	3.8%	8170
Cartago	14.1%	68.0%	8.3%	7.8%	1.9%	800
Casanare	15.2%	60.8%	10.7%	10.6%	2.8%	2137
Cauca	14.9%	57.3%	10.6%	12.9%	4.4%	8851
Cesar	15.6%	58.3%	11.1%	12.0%	3.0%	6077
Chocó	18.6%	44.7%	12.8%	17.0%	7.0%	2790
Chía	9.3%	73.9%	6.5%	8.1%	2.3%	968
Ciénaga	13.9%	56.4%	8.2%	15.3%	6.3%	1119
Cundinamarca	12.4%	67.6%	9.2%	8.9%	1.9%	11868
Córdoba	16.9%	53.0%	11.9%	14.5%	3.7%	9379
Cúcuta	13.3%	65.1%	9.9%	10.2%	1.6%	5493
Dosquebradas	12.6%	68.4%	8.3%	9.1%	1.7%	1247
Duitama	9.2%	74.9%	8.9%	6.0%	1.1%	1037
Envigado	11.0%	75.4%	7.0%	5.6%	1.1%	1222
Facatativá	11.0%	73.0%	6.8%	7.6%	1.5%	1068
Florencia	15.3%	60.2%	10.7%	12.2%	1.6%	1472
Floridablanca	10.1%	73.4%	8.9%	6.4%	1.2%	1847
Fusagasugá	12.8%	66.5%	10.2%	8.5%	2.0%	1057
Girardot	14.1%	59.9%	13.1%	9.5%	3.3%	778
Girón	12.5%	65.4%	11.6%	8.0%	2.4%	1013
Guainía	0.0%	0.0%	50.0%	50.0%	0.0%	2
Guaviare	15.0%	56.5%	12.1%	11.7%	4.8%	712
Huila	14.4%	62.8%	10.2%	10.8%	1.8%	6391
Ibagué	13.4%	67.9%	8.7%	8.0%	2.0%	3972
Ipiales	11.0%	69.3%	11.0%	7.8%	1.0%	1003
Itagüí	16.7%	59.9%	11.4%	9.2%	2.8%	1363
Jamundí	15.0%	60.0%	10.0%	12.1%	2.9%	867
La Guajira	16.7%	50.8%	13.1%	15.4%	4.0%	2473
Lorica	16.1%	48.4%	14.8%	17.4%	3.5%	1152
Magangué	16.6%	53.7%	11.2%	13.9%	4.5%	1221
Magdalena	16.0%	50.3%	11.7%	16.4%	5.6%	6256
Maicao	18.0%	46.4%	12.9%	17.2%	5.5%	1430
Malambo	14.6%	56.2%	11.6%	12.5%	5.1%	946
Manizales	11.6%	69.8%	8.7%	8.7%	1.2%	2325
Medellín	14.6%	61.8%	10.7%	10.8%	2.2%	16066
Meta	13.7%	60.8%	10.6%	11.5%	3.5%	3964
Montería	15.9%	58.2%	11.1%	12.1%	2.8%	3787

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Mosquera	10.1%	73.6%	8.1%	6.1%	2.0%	880
Nariño	13.6%	64.1%	8.4%	10.2%	3.6%	7159
Neiva	13.5%	65.3%	9.7%	9.4%	2.1%	3001
Norte de Santander	13.7%	64.5%	9.2%	10.6%	2.0%	5716
Palmira	11.5%	70.6%	7.5%	8.2%	2.2%	2080
Pasto	11.2%	70.0%	8.8%	8.9%	1.1%	3135
Pereira	11.8%	69.0%	8.8%	8.3%	2.1%	3512
Piedecuesta	11.8%	68.1%	8.8%	10.0%	1.4%	1104
Pitalito	14.6%	61.5%	11.4%	10.3%	2.2%	1264
Popayán	10.6%	71.2%	7.6%	7.9%	2.7%	2084
Putumayo	15.3%	59.7%	10.3%	12.5%	2.3%	3241
Quibdó	19.3%	48.1%	13.3%	14.1%	5.2%	1058
Quindío	15.8%	60.2%	10.0%	12.3%	1.7%	2174
Riohacha	17.8%	52.1%	12.1%	14.9%	3.2%	1682
Rionegro	11.4%	70.7%	9.9%	7.0%	1.0%	826
Risaralda	13.3%	62.8%	10.2%	11.4%	2.4%	2246
Sabaneta	10.9%	73.1%	7.4%	7.4%	1.1%	376
Sahagún	15.0%	57.8%	10.3%	14.5%	2.5%	954
San Andrés	18.1%	49.1%	14.1%	15.0%	3.7%	454
Santa Marta	14.0%	60.5%	10.5%	11.2%	3.7%	4141
Santander	13.0%	65.8%	9.7%	9.7%	1.8%	6451
Sincelejo	13.1%	62.3%	10.7%	11.4%	2.6%	2551
Soacha	13.1%	67.2%	9.2%	8.6%	1.9%	4151
Sogamoso	10.5%	72.1%	7.8%	8.6%	0.9%	1084
Soledad	14.3%	62.7%	11.0%	10.0%	2.0%	3903
Sucre	16.4%	51.9%	12.2%	16.1%	3.3%	5575
Tolima	14.9%	59.6%	10.9%	12.0%	2.6%	7452
Tuluá	12.3%	67.0%	8.7%	9.4%	2.6%	1617
Tumaco	16.5%	44.1%	13.3%	17.2%	9.0%	1864
Tunja	9.9%	69.6%	10.0%	8.9%	1.5%	1330
Turbo	16.7%	47.2%	12.1%	16.6%	7.3%	1472
Uribe	16.7%	44.3%	13.7%	21.9%	3.5%	402
Valle del Cauca	13.7%	63.0%	9.8%	10.7%	2.8%	7166
Valledupar	14.9%	60.4%	9.9%	10.8%	4.0%	3550
Vaupés	40.0%	60.0%	0.0%	0.0%	0.0%	5
Vichada	13.8%	55.9%	13.3%	13.5%	3.5%	458
Villavicencio	13.5%	66.3%	9.5%	8.8%	1.9%	4036
Yopal	11.1%	67.8%	9.8%	9.1%	2.1%	1315
Zipacquirá	12.0%	69.5%	8.7%	8.4%	1.6%	1028
Colombia	13.8%	62.8%	9.9%	10.6%	2.9%	365872

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

• **Pregunta 32.**

En un experimento, se les pide a cuatro niños que empujen diferente número de cajas y se registra el tiempo que cada uno tarda en recorrer 5 metros. El resultado del experimento se organizó en la siguiente tabla, que muestra el tiempo empleado por cada niño a medida que aumenta el número de cajas.

<b>Estudiante</b>	<b>Tiempo empleado en mover 2 cajas (seg)</b>	<b>Tiempo empleado en mover 4 cajas (seg)</b>
Lucho	20	31
Manuela	28	38
José	30	38
Miguel	32	41

De acuerdo con los resultados que se observan en la tabla, puede concluirse que

- A.** el estudiante más fuerte emplea el mismo tiempo sin importar la masa.
- B.** todos los niños aplican más fuerza siempre que empujan dos cajas.
- C.** el estudiante más fuerte de todos siempre emplea menos tiempo.
- D.** todos los niños siempre aplican la misma fuerza sobre las cajas.

• **Estructura**

<b>Competencia</b>	Indagación
<b>Componente</b>	Entorno físico
<b>Afirmación</b>	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.
<b>Nivel de desempeño</b>	Avanzado
<b>Respuesta Correcta</b>	C

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	21.5%	20.7%	30.5%	20.5%	6.7%	789
Antioquia	20.9%	22.3%	37.4%	17.3%	2.1%	21462
Apartadó	21.6%	25.4%	33.4%	18.3%	1.4%	1238
Arauca	19.4%	22.4%	39.8%	16.7%	1.7%	1996
Armenia	21.3%	22.7%	40.1%	14.9%	1.0%	2026
Atlántico	20.8%	23.1%	32.8%	18.7%	4.5%	4443
Barrancabermeja	20.9%	22.2%	36.9%	18.5%	1.5%	1763
Barranquilla	21.6%	22.0%	38.4%	16.3%	1.7%	8016
Bello	23.0%	20.8%	40.9%	14.2%	1.0%	3061
Bogotá, D.C.	18.6%	20.6%	43.7%	14.5%	2.6%	52956
Bolívar	24.0%	23.5%	27.6%	20.9%	4.0%	7920
Boyacá	19.4%	22.6%	41.4%	15.5%	1.2%	7145
Bucaramanga	18.1%	20.7%	45.7%	14.0%	1.5%	3992
Buenaventura	23.6%	21.4%	35.1%	16.5%	3.5%	2515
Buga	17.1%	22.0%	39.9%	16.0%	5.0%	860
Caldas	18.7%	23.3%	38.9%	17.6%	1.5%	4334
Cali	20.5%	22.3%	39.9%	14.8%	2.6%	14283
Caquetá	19.9%	24.0%	36.8%	17.3%	2.0%	2253
Cartagena	24.4%	22.8%	34.5%	15.4%	2.9%	8170
Cartago	20.4%	23.8%	37.5%	16.5%	1.9%	800
Casanare	20.4%	20.7%	38.0%	18.9%	2.0%	2137
Cauca	18.4%	21.5%	37.6%	18.6%	4.0%	8851
Cesar	19.5%	22.6%	35.7%	19.7%	2.4%	6077
Chocó	21.4%	22.2%	31.2%	19.1%	6.2%	2790
Chía	19.4%	19.5%	47.7%	11.8%	1.5%	968
Ciénaga	20.1%	18.9%	35.6%	19.2%	6.2%	1119
Cundinamarca	17.8%	21.7%	43.9%	15.3%	1.3%	11868
Córdoba	20.4%	23.2%	31.8%	22.1%	2.5%	9379
Cúcuta	20.1%	22.1%	40.7%	16.0%	1.1%	5493
Dosquebradas	20.1%	20.7%	41.6%	16.6%	1.0%	1247
Duitama	16.8%	19.8%	53.1%	10.2%	0.1%	1037
Envigado	18.7%	18.5%	49.3%	13.4%	0.1%	1222
Facatativá	19.8%	19.4%	44.1%	16.1%	0.7%	1068
Florencia	21.6%	21.7%	36.8%	18.5%	1.4%	1472
Floridablanca	17.4%	21.6%	47.4%	12.3%	1.2%	1847
Fusagasugá	19.2%	23.8%	41.0%	14.9%	1.1%	1057
Girardot	19.2%	22.2%	39.3%	16.3%	3.0%	778

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Girón	20.6%	22.2%	38.1%	18.0%	1.1%	1013
Guainía	0.0%	0.0%	100.0%	0.0%	0.0%	2
Guaviare	21.9%	21.6%	34.3%	18.4%	3.8%	712
Huila	17.4%	23.4%	39.5%	18.3%	1.3%	6391
Ibagué	18.0%	22.4%	43.2%	15.0%	1.4%	3972
Ipiales	17.0%	24.9%	41.8%	15.1%	1.2%	1003
Itagüí	24.8%	19.9%	38.7%	14.9%	1.8%	1363
Jamundí	19.3%	21.9%	38.2%	18.5%	2.2%	867
La Guajira	22.1%	22.9%	32.3%	19.5%	3.2%	2473
Lorica	23.1%	24.2%	29.4%	20.4%	2.9%	1152
Magangué	22.9%	23.2%	31.0%	19.6%	3.4%	1221
Magdalena	20.4%	21.1%	31.6%	21.9%	5.0%	6256
Maicao	22.7%	23.3%	29.1%	18.6%	6.4%	1430
Malambo	20.1%	23.6%	34.7%	17.7%	4.0%	946
Manizales	19.4%	20.0%	44.0%	16.0%	0.6%	2325
Medellín	23.8%	21.5%	37.6%	15.8%	1.4%	16066
Meta	21.2%	22.2%	38.2%	15.8%	2.6%	3964
Montería	22.7%	22.2%	34.5%	18.5%	2.1%	3787
Mosquera	16.7%	20.7%	46.8%	14.7%	1.1%	880
Nariño	15.5%	21.3%	43.5%	16.2%	3.4%	7159
Neiva	20.4%	22.7%	37.2%	18.2%	1.4%	3001
Norte de Santander	18.9%	23.2%	39.0%	17.4%	1.5%	5716
Palmira	20.0%	23.3%	40.6%	14.7%	1.4%	2080
Pasto	18.1%	23.5%	42.0%	15.6%	0.8%	3135
Pereira	20.2%	19.6%	42.9%	15.9%	1.3%	3512
Piedecuesta	19.8%	20.6%	43.3%	15.4%	0.9%	1104
Pitalito	18.3%	23.4%	39.9%	16.9%	1.5%	1264
Popayán	17.3%	20.1%	46.3%	14.3%	2.0%	2084
Putumayo	20.5%	23.4%	37.0%	17.6%	1.6%	3241
Quibdó	23.8%	22.0%	31.7%	17.6%	4.9%	1058
Quindío	20.1%	21.3%	39.1%	18.4%	1.1%	2174
Riohacha	25.1%	22.1%	31.9%	18.5%	2.4%	1682
Rionegro	19.7%	23.0%	42.6%	13.8%	0.8%	826
Risaralda	18.3%	22.2%	36.8%	21.1%	1.6%	2246
Sabaneta	24.7%	19.7%	42.3%	12.2%	1.1%	376
Sahagún	20.2%	24.8%	33.0%	20.8%	1.2%	954
San Andrés	24.0%	25.1%	29.5%	15.4%	5.9%	454
Santa Marta	20.8%	21.5%	36.2%	18.2%	3.4%	4141
Santander	17.3%	22.3%	42.7%	16.6%	1.1%	6451
Sincelejo	21.1%	26.5%	32.4%	17.8%	2.2%	2551

Continúa en la siguiente página

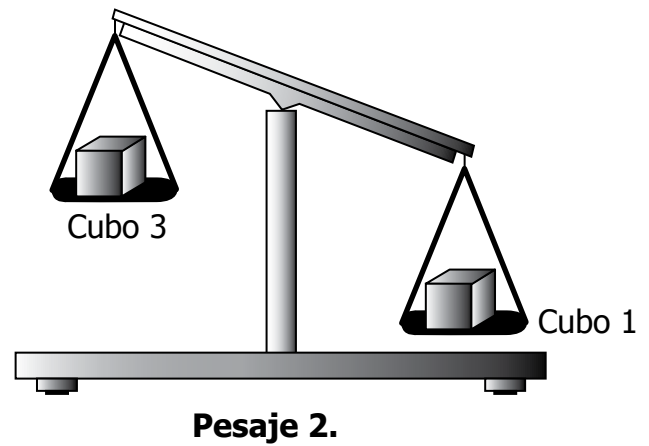
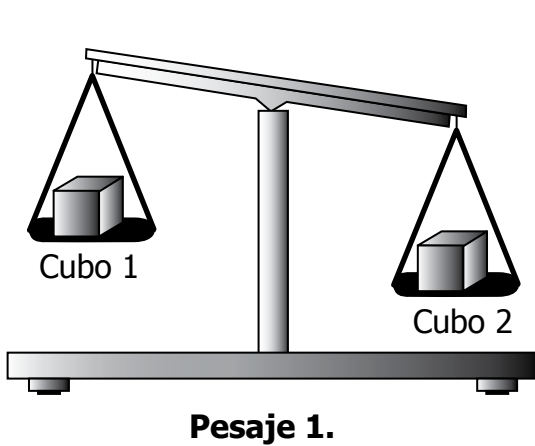
ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	21.2%	21.2%	41.6%	14.9%	1.2%	4151
Sogamoso	17.9%	22.0%	45.8%	13.7%	0.6%	1084
Soledad	22.2%	24.1%	36.1%	16.3%	1.3%	3903
Sucre	22.3%	22.6%	31.4%	20.9%	2.9%	5575
Tolima	19.3%	23.1%	36.7%	19.0%	2.0%	7452
Tuluá	18.6%	22.1%	42.0%	15.8%	1.4%	1617
Tumaco	22.7%	19.8%	30.1%	18.4%	8.9%	1864
Tunja	16.4%	20.3%	47.9%	14.3%	1.1%	1330
Turbo	21.8%	25.1%	27.9%	19.2%	6.0%	1472
Uribe	19.7%	23.9%	28.6%	25.4%	2.5%	402
Valle del Cauca	20.4%	23.0%	37.3%	17.2%	2.0%	7166
Valledupar	20.7%	22.4%	35.7%	18.0%	3.3%	3550
Vaupés	0.0%	0.0%	60.0%	40.0%	0.0%	5
Vichada	19.7%	20.7%	34.9%	20.3%	4.4%	458
Villavicencio	20.1%	21.2%	43.6%	14.1%	1.0%	4036
Yopal	22.1%	21.6%	37.7%	17.7%	0.9%	1315
Zipaquirá	17.1%	22.3%	44.0%	16.1%	0.5%	1028
Colombia	20.1%	22.0%	38.8%	16.8%	2.3%	365872

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



**RESPONDE LAS PREGUNTAS 33 Y 34 DE ACUERDO CON LA SIGUIENTE INFORMACIÓN**

Tu profesora realiza un experimento en el que coloca tres cubos de igual volumen en una balanza, como se muestra en el siguiente dibujo.



## • Pregunta 33.

De acuerdo con lo que observas en el dibujo anterior, es correcto afirmar que la masa

- A.** de los cubos 1 y 2 es igual.
- B.** del cubo 1 es mayor que la masa del cubo 2.
- C.** de los cubos 2 y 3 es igual.
- D.** del cubo 3 es menor que la masa del cubo 2.

## • Estructura

<b>Competencia</b>	Indagación
<b>Componente</b>	Entorno físico
<b>Afirmación</b>	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.
<b>Nivel de desempeño</b>	Avanzado
<b>Respuesta Correcta</b>	D

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	17.4%	31.3%	18.0%	26.2%	7.1%	789
Antioquia	15.5%	34.1%	14.5%	33.7%	2.3%	21462
Apartadó	17.2%	35.1%	17.2%	28.8%	1.8%	1238
Arauca	13.0%	34.9%	15.3%	34.9%	1.9%	1996
Armenia	13.0%	36.1%	14.4%	35.4%	1.0%	2026
Atlántico	16.3%	33.4%	17.1%	28.4%	4.8%	4443
Barrancabermeja	14.0%	34.7%	14.2%	35.5%	1.7%	1763
Barranquilla	14.4%	35.0%	13.6%	35.2%	1.9%	8016
Bello	13.7%	34.9%	13.2%	37.1%	1.0%	3061
Bogotá, D.C.	11.0%	33.6%	10.5%	42.2%	2.7%	52956
Bolívar	18.0%	32.2%	19.6%	25.4%	4.8%	7920
Boyacá	12.4%	33.2%	13.6%	39.6%	1.3%	7145
Bucaramanga	10.5%	31.5%	11.4%	45.0%	1.7%	3992
Buenaventura	15.3%	35.1%	15.7%	30.1%	3.7%	2515
Buga	11.0%	38.0%	12.6%	33.8%	4.5%	860
Caldas	14.1%	36.2%	13.0%	35.1%	1.6%	4334
Cali	12.6%	35.3%	12.4%	37.2%	2.5%	14283

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Caquetá	15.5%	32.2%	17.0%	33.4%	2.0%	2253
Cartagena	16.3%	34.8%	14.2%	31.4%	3.2%	8170
Cartago	14.1%	37.3%	13.0%	34.0%	1.6%	800
Casanare	13.3%	35.6%	14.4%	34.7%	2.1%	2137
Cauca	15.8%	33.1%	16.1%	30.9%	4.0%	8851
Cesar	16.6%	33.0%	15.1%	33.0%	2.3%	6077
Chocó	16.0%	29.8%	21.1%	27.0%	6.1%	2790
Chía	11.0%	30.6%	10.2%	46.7%	1.5%	968
Ciénaga	15.9%	33.3%	16.9%	28.2%	5.7%	1119
Cundinamarca	12.4%	34.5%	12.1%	39.7%	1.3%	11868
Córdoba	18.1%	32.1%	18.1%	28.8%	2.9%	9379
Cúcuta	13.6%	35.6%	12.7%	36.9%	1.1%	5493
Dosquebradas	10.7%	38.3%	11.1%	38.6%	1.3%	1247
Duitama	9.5%	32.9%	9.6%	47.7%	0.2%	1037
Envigado	10.6%	29.7%	9.8%	49.6%	0.2%	1222
Facatativá	11.0%	37.0%	11.9%	39.4%	0.7%	1068
Florencia	15.8%	35.3%	13.3%	33.9%	1.7%	1472
Floridablanca	9.7%	31.8%	10.8%	46.5%	1.2%	1847
Fusagasugá	14.0%	34.6%	12.8%	37.4%	1.2%	1057
Girardot	15.8%	34.6%	14.7%	31.5%	3.5%	778
Girón	12.2%	37.5%	12.6%	36.6%	1.0%	1013
Guainía	50.0%	50.0%	0.0%	0.0%	0.0%	2
Guaviare	12.5%	34.0%	17.3%	32.0%	4.2%	712
Huila	13.9%	34.8%	13.9%	36.3%	1.1%	6391
Ibagué	11.3%	35.0%	12.0%	40.2%	1.5%	3972
Ipiales	11.6%	34.4%	12.6%	40.2%	1.3%	1003
Itagüí	12.3%	35.8%	14.7%	35.1%	2.1%	1363
Jamundí	15.3%	32.3%	15.5%	34.1%	2.8%	867
La Guajira	17.6%	33.5%	16.5%	29.0%	3.4%	2473
Lorica	17.4%	30.6%	21.3%	28.0%	2.7%	1152
Magangué	16.3%	31.4%	19.6%	28.6%	4.1%	1221
Magdalena	18.4%	30.7%	17.6%	27.8%	5.4%	6256
Maicao	16.2%	32.9%	18.5%	25.0%	7.3%	1430
Malambo	13.1%	30.2%	15.6%	37.1%	3.9%	946
Manizales	12.4%	36.9%	10.4%	39.5%	0.8%	2325
Medellín	14.4%	34.2%	15.0%	34.9%	1.6%	16066
Meta	14.2%	34.4%	14.7%	34.0%	2.7%	3964
Montería	15.7%	34.7%	15.8%	31.6%	2.1%	3787
Mosquera	10.6%	34.0%	8.5%	45.2%	1.7%	880
Nariño	13.6%	32.4%	13.1%	37.6%	3.3%	7159

Continúa en la siguiente página

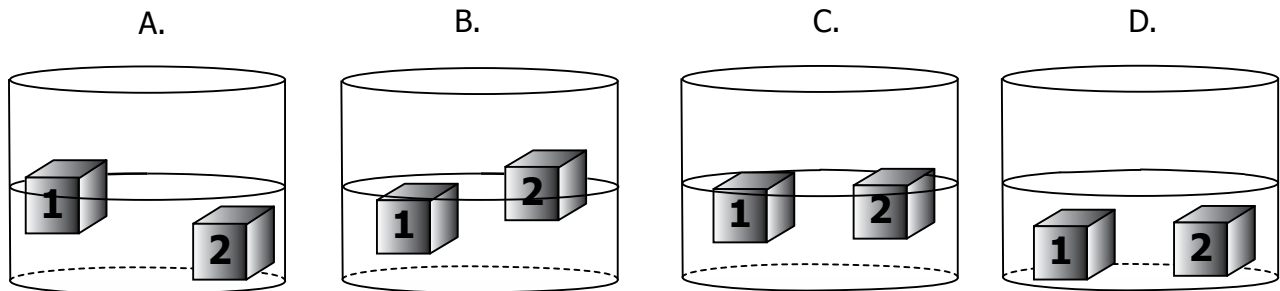
## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Neiva	12.8%	35.1%	13.3%	37.2%	1.6%	3001
Norte de Santander	13.8%	34.8%	13.5%	36.4%	1.4%	5716
Palmira	12.0%	35.1%	11.6%	39.2%	2.1%	2080
Pasto	11.4%	34.9%	12.6%	40.5%	0.6%	3135
Pereira	12.9%	37.2%	11.2%	37.1%	1.7%	3512
Piedecuesta	12.0%	35.1%	12.6%	38.8%	1.5%	1104
Pitalito	11.5%	34.9%	14.2%	38.0%	1.5%	1264
Popayán	10.6%	39.5%	9.9%	38.0%	2.0%	2084
Putumayo	16.0%	34.5%	14.1%	33.6%	1.8%	3241
Quibdó	15.5%	33.6%	18.8%	26.1%	6.0%	1058
Quindío	14.3%	35.8%	14.4%	34.5%	1.1%	2174
Riohacha	16.4%	35.4%	18.1%	26.9%	3.3%	1682
Rionegro	13.1%	31.8%	11.4%	42.5%	1.2%	826
Risaralda	13.2%	36.4%	15.0%	33.5%	1.8%	2246
Sabaneta	12.8%	37.5%	8.8%	40.2%	0.8%	376
Sahagún	16.8%	31.6%	18.2%	32.1%	1.4%	954
San Andrés	13.9%	36.1%	16.5%	27.5%	5.9%	454
Santa Marta	15.5%	36.5%	13.3%	31.4%	3.2%	4141
Santander	12.6%	34.0%	13.2%	39.0%	1.2%	6451
Sincelejo	14.2%	35.0%	14.9%	33.9%	2.1%	2551
Soacha	12.8%	37.1%	11.9%	36.9%	1.4%	4151
Sogamoso	9.5%	33.6%	10.2%	46.0%	0.6%	1084
Soledad	15.8%	35.6%	13.0%	34.0%	1.5%	3903
Sucre	18.6%	33.9%	17.3%	27.1%	3.1%	5575
Tolima	14.4%	34.4%	15.4%	33.9%	1.9%	7452
Tuluá	12.1%	36.3%	12.2%	38.0%	1.4%	1617
Tumaco	16.0%	32.9%	17.4%	24.4%	9.2%	1864
Tunja	10.1%	32.6%	11.7%	44.3%	1.4%	1330
Turbo	17.5%	31.4%	17.9%	26.3%	6.9%	1472
Uribe	21.4%	35.3%	20.1%	20.1%	3.0%	402
Valle del Cauca	14.1%	36.5%	13.3%	34.0%	2.1%	7166
Valledupar	15.6%	33.7%	14.1%	33.2%	3.2%	3550
Vaupés	20.0%	20.0%	20.0%	40.0%	0.0%	5
Vichada	13.3%	33.4%	19.0%	28.4%	5.9%	458
Villavicencio	12.7%	35.1%	13.1%	38.1%	1.1%	4036
Yopal	12.5%	33.9%	12.9%	39.5%	1.2%	1315
Zipaquirá	12.1%	33.9%	11.0%	42.1%	0.9%	1028
Colombia	13.9%	34.2%	13.8%	35.7%	2.4%	365872

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

• **Pregunta 34.**

Pedro mete los cubos 1 y 2 en un recipiente con agua. Si Pedro sabe que el cubo 1 es más liviano que el agua, el dibujo que representa correctamente la posición de los cubos 1 y 2 en el agua es



• **Estructura**

<b>Competencia</b>	Indagación
<b>Componente</b>	Entorno físico
<b>Afirmación</b>	Utilizar algunas habilidades de pensamiento y de procedimiento para evaluar predicciones.
<b>Nivel de desempeño</b>	Satisfactorio
<b>Respuesta Correcta</b>	A

Continúa en la siguiente página

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	36.6%	14.2%	19.5%	21.4%	8.2%	789
Antioquia	48.4%	14.1%	18.3%	16.5%	2.7%	21462
Apartadó	47.4%	16.0%	19.0%	15.2%	2.4%	1238
Arauca	53.0%	13.6%	17.4%	13.7%	2.3%	1996
Armenia	53.8%	14.7%	16.2%	14.2%	1.2%	2026
Atlántico	41.5%	17.8%	18.8%	16.5%	5.4%	4443
Barrancabermeja	49.6%	15.4%	18.1%	14.9%	1.9%	1763
Barranquilla	51.7%	14.6%	18.0%	13.4%	2.4%	8016
Bello	55.3%	14.4%	16.5%	12.3%	1.4%	3061
Bogotá, D.C.	61.1%	12.8%	13.3%	9.9%	2.9%	52956
Bolívar	35.0%	19.1%	22.0%	18.7%	5.2%	7920
Boyacá	53.6%	13.9%	16.7%	14.3%	1.5%	7145
Bucaramanga	61.6%	13.3%	12.9%	10.3%	1.9%	3992
Buenaventura	44.7%	14.0%	19.3%	17.3%	4.7%	2515
Buga	52.7%	13.7%	15.2%	13.3%	5.1%	860
Caldas	51.8%	12.8%	17.7%	15.9%	1.9%	4334
Cali	57.1%	13.0%	15.3%	11.9%	2.7%	14283
Caquetá	45.3%	14.7%	20.5%	16.9%	2.6%	2253
Cartagena	47.1%	15.8%	19.2%	14.4%	3.5%	8170
Cartago	53.9%	14.1%	15.8%	15.0%	1.3%	800
Casanare	49.0%	13.6%	18.6%	16.1%	2.8%	2137
Cauca	46.0%	13.4%	18.5%	17.6%	4.4%	8851
Cesar	46.7%	15.0%	19.0%	16.5%	2.8%	6077
Chocó	33.0%	17.8%	20.6%	21.1%	7.6%	2790
Chía	67.5%	9.3%	12.2%	9.2%	1.9%	968
Ciénaga	42.8%	17.0%	18.2%	16.0%	6.0%	1119
Cundinamarca	57.7%	13.3%	14.7%	12.8%	1.6%	11868
Córdoba	39.1%	16.6%	21.1%	19.8%	3.4%	9379
Cúcuta	54.5%	14.1%	16.9%	13.1%	1.4%	5493
Dosquebradas	58.6%	13.2%	15.8%	11.1%	1.3%	1247
Duitama	70.7%	11.7%	10.6%	6.8%	0.2%	1037
Envigado	64.4%	12.8%	13.1%	9.2%	0.4%	1222
Facatativá	62.1%	12.5%	14.0%	10.5%	0.8%	1068
Florencia	51.2%	14.1%	18.2%	14.9%	1.7%	1472
Floridablanca	63.9%	11.5%	13.6%	9.7%	1.3%	1847
Fusagasugá	57.8%	11.8%	17.0%	12.2%	1.1%	1057
Girardot	50.6%	15.6%	17.1%	13.0%	3.7%	778

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	53.8%	15.3%	17.7%	12.3%	0.9%	1013
Guainía	0.0%	0.0%	50.0%	50.0%	0.0%	2
Guaviare	43.7%	13.9%	21.9%	15.7%	4.8%	712
Huila	52.0%	13.0%	17.8%	15.8%	1.4%	6391
Ibagué	59.0%	13.3%	15.2%	10.7%	1.8%	3972
Ipiales	60.1%	12.8%	13.8%	12.2%	1.2%	1003
Itagüí	52.6%	16.7%	16.1%	12.8%	1.8%	1363
Jamundí	52.1%	13.8%	16.8%	14.2%	3.0%	867
La Guajira	41.0%	16.8%	20.7%	17.4%	4.1%	2473
Lorica	36.7%	17.9%	21.3%	21.1%	3.0%	1152
Magangué	41.5%	15.5%	20.7%	17.8%	4.5%	1221
Magdalena	37.9%	17.3%	20.1%	18.7%	5.9%	6256
Maicao	36.9%	16.5%	21.2%	18.1%	7.3%	1430
Malambo	49.9%	14.1%	17.8%	13.6%	4.7%	946
Manizales	59.5%	13.0%	14.8%	11.6%	1.0%	2325
Medellín	51.0%	16.0%	17.5%	13.7%	1.8%	16066
Meta	48.9%	14.0%	18.1%	15.8%	3.2%	3964
Montería	46.8%	15.1%	19.4%	16.4%	2.3%	3787
Mosquera	63.5%	13.1%	12.0%	9.9%	1.5%	880
Nariño	54.4%	12.4%	15.8%	13.9%	3.5%	7159
Neiva	54.8%	12.9%	17.3%	13.4%	1.7%	3001
Norte de Santander	53.1%	12.5%	18.4%	14.4%	1.6%	5716
Palmira	59.3%	13.0%	15.5%	10.5%	1.7%	2080
Pasto	63.0%	11.6%	13.4%	11.3%	0.7%	3135
Pereira	57.4%	13.7%	15.0%	12.1%	1.8%	3512
Piedecuesta	57.5%	13.4%	16.7%	11.2%	1.2%	1104
Pitalito	54.1%	13.1%	15.7%	15.5%	1.6%	1264
Popayán	63.3%	12.1%	13.1%	9.5%	2.0%	2084
Putumayo	50.6%	13.4%	18.4%	15.6%	2.0%	3241
Quibdó	36.2%	16.4%	23.3%	18.1%	6.0%	1058
Quindío	51.1%	14.3%	17.7%	15.4%	1.6%	2174
Riohacha	42.9%	15.9%	21.8%	16.2%	3.2%	1682
Rionegro	61.1%	14.6%	13.0%	10.2%	1.1%	826
Risaralda	50.6%	14.1%	17.5%	15.9%	2.0%	2246
Sabaneta	57.4%	15.7%	12.5%	13.0%	1.3%	376
Sahagún	45.6%	15.9%	19.6%	17.0%	1.9%	954
San Andrés	37.4%	17.6%	22.5%	16.3%	6.2%	454
Santa Marta	50.3%	14.1%	17.6%	14.4%	3.7%	4141
Santander	55.8%	13.1%	15.1%	14.5%	1.4%	6451
Sincelejo	50.9%	13.6%	18.2%	14.9%	2.4%	2551

Continúa en la siguiente página

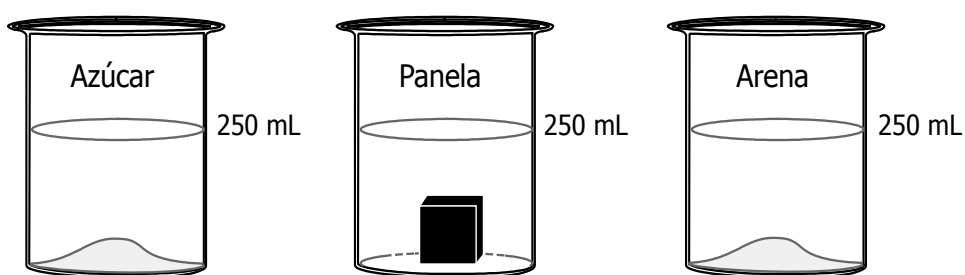
ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	57.3%	15.0%	14.8%	11.5%	1.4%	4151
Sogamoso	64.9%	12.3%	14.4%	7.7%	0.7%	1084
Soledad	52.1%	15.0%	18.5%	12.7%	1.7%	3903
Sucre	38.4%	17.2%	21.3%	19.5%	3.5%	5575
Tolima	49.0%	14.0%	18.4%	16.3%	2.4%	7452
Tuluá	58.6%	13.3%	15.7%	11.0%	1.4%	1617
Tumaco	33.4%	16.7%	20.3%	19.3%	10.3%	1864
Tunja	61.8%	12.0%	12.6%	12.4%	1.2%	1330
Turbo	32.8%	16.0%	23.5%	19.8%	7.9%	1472
Uribe	25.6%	21.6%	23.9%	25.1%	3.7%	402
Valle del Cauca	52.7%	13.3%	16.6%	14.9%	2.6%	7166
Valledupar	49.4%	15.2%	17.9%	14.1%	3.4%	3550
Vaupés	20.0%	0.0%	20.0%	60.0%	0.0%	5
Vichada	38.0%	17.2%	21.6%	17.9%	5.2%	458
Villavicencio	56.7%	13.7%	16.2%	12.2%	1.3%	4036
Yopal	56.6%	12.4%	17.1%	12.4%	1.5%	1315
Zipaquirá	59.2%	15.2%	14.3%	10.2%	1.1%	1028
Colombia	52.0%	14.2%	17.0%	14.1%	2.7%	365872

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



• **Pregunta 35.**

Juan echa igual cantidad de agua en tres vasos diferentes y a cada uno le adiciona azúcar, panela y arena, tal como se muestra en el dibujo.



En la siguiente tabla se muestran algunas características de los materiales utilizados por Juan:

<b>Material</b>	<b>Características</b>
Panela	Sólido soluble en agua.
Azúcar	Sólido soluble en agua.
Arena	Sólido insoluble en agua.

De acuerdo con la información, si Juan calienta las mezclas agitándolas continuamente, es probable que

- A.** el azúcar se disuelva primero.
- B.** el trozo de panela se disuelva primero.
- C.** la arena se disuelva primero.
- D.** las tres sustancias se disuelvan a la vez.

## • Estructura

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

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	39.7%	15.2%	12.5%	23.8%	8.7%	789
Antioquia	53.2%	14.5%	11.9%	17.3%	3.0%	21462
Apartadó	48.7%	14.8%	16.5%	17.9%	2.2%	1238
Arauca	53.3%	15.9%	11.9%	16.6%	2.3%	1996
Armenia	46.4%	19.3%	15.9%	16.8%	1.5%	2026
Atlántico	46.3%	14.0%	14.5%	19.0%	6.3%	4443
Barrancabermeja	50.0%	15.4%	14.2%	17.8%	2.6%	1763
Barranquilla	52.2%	16.1%	11.8%	17.2%	2.7%	8016
Bello	47.3%	18.4%	14.3%	18.2%	1.8%	3061
Bogotá, D.C.	48.5%	17.2%	15.4%	15.5%	3.3%	52956
Bolívar	45.4%	14.0%	14.7%	20.1%	5.8%	7920
Boyacá	52.6%	14.3%	14.1%	17.1%	1.9%	7145
Bucaramanga	54.0%	15.1%	13.9%	14.8%	2.1%	3992
Buenaventura	53.4%	13.8%	13.3%	15.0%	4.6%	2515
Buga	51.9%	13.3%	11.7%	17.3%	5.8%	860
Caldas	54.2%	15.4%	12.0%	16.3%	2.2%	4334
Cali	53.4%	15.1%	13.1%	15.2%	3.3%	14283
Caquetá	58.8%	13.4%	11.7%	13.5%	2.7%	2253
Cartagena	48.6%	14.7%	14.2%	18.6%	4.0%	8170
Cartago	46.0%	18.6%	13.6%	18.9%	2.9%	800
Casanare	50.5%	14.8%	13.3%	18.6%	2.7%	2137
Cauca	59.6%	12.0%	10.0%	13.8%	4.6%	8851
Cesar	55.1%	12.3%	12.4%	17.2%	3.1%	6077
Chocó	49.8%	13.0%	12.2%	17.6%	7.4%	2790
Chía	48.7%	17.5%	17.5%	13.9%	2.5%	968
Ciénaga	53.3%	12.0%	12.4%	16.4%	6.0%	1119
Cundinamarca	51.6%	14.8%	15.1%	16.4%	2.1%	11868

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Córdoba	49.4%	14.5%	13.7%	18.6%	3.7%	9379
Cúcuta	50.4%	17.9%	13.2%	16.7%	1.9%	5493
Dosquebradas	47.7%	16.0%	15.6%	19.0%	1.6%	1247
Duitama	57.4%	15.9%	13.9%	12.2%	0.7%	1037
Envigado	52.4%	17.1%	15.4%	14.7%	0.4%	1222
Facatativá	49.7%	16.0%	14.7%	18.5%	1.0%	1068
Florencia	50.6%	16.4%	12.2%	18.9%	1.9%	1472
Floridablanca	53.9%	16.5%	13.2%	14.8%	1.6%	1847
Fusagasugá	48.5%	17.4%	14.8%	17.6%	1.7%	1057
Girardot	47.0%	15.8%	13.0%	20.3%	3.9%	778
Girón	52.1%	16.3%	13.5%	17.0%	1.1%	1013
Guainía	50.0%	0.0%	0.0%	50.0%	0.0%	2
Guaviare	49.7%	14.6%	12.6%	16.9%	6.2%	712
Huila	60.0%	13.0%	10.6%	14.3%	2.0%	6391
Ibagué	53.7%	16.3%	12.7%	15.4%	1.9%	3972
Ipiales	53.2%	18.3%	10.9%	15.9%	1.7%	1003
Itagüí	45.0%	19.6%	15.8%	17.0%	2.5%	1363
Jamundí	56.7%	12.8%	13.0%	14.0%	3.5%	867
La Guajira	48.0%	15.3%	12.8%	19.3%	4.6%	2473
Lorica	47.0%	15.2%	13.8%	19.9%	4.1%	1152
Magangué	44.7%	15.6%	15.3%	20.0%	4.4%	1221
Magdalena	49.9%	12.8%	12.5%	18.4%	6.4%	6256
Maicao	42.6%	14.1%	14.7%	21.3%	7.4%	1430
Malambo	53.8%	14.8%	11.7%	15.8%	3.9%	946
Manizales	46.8%	17.6%	16.3%	17.9%	1.5%	2325
Medellín	44.4%	17.5%	16.0%	19.8%	2.3%	16066
Meta	52.4%	15.3%	13.3%	15.6%	3.3%	3964
Montería	49.8%	15.5%	12.9%	18.9%	2.9%	3787
Mosquera	54.3%	15.5%	15.0%	13.3%	1.9%	880
Nariño	63.8%	10.5%	8.5%	13.2%	4.0%	7159
Neiva	51.1%	16.8%	12.1%	18.1%	1.9%	3001
Norte de Santander	59.7%	13.1%	11.5%	13.8%	2.0%	5716
Palmira	53.3%	14.8%	13.0%	16.8%	2.2%	2080
Pasto	56.9%	14.9%	10.3%	16.4%	1.5%	3135
Pereira	49.7%	16.8%	15.4%	15.7%	2.3%	3512
Piedecuesta	57.9%	13.5%	11.7%	15.9%	1.1%	1104
Pitalito	55.7%	12.7%	12.4%	17.3%	1.9%	1264
Popayán	60.6%	11.8%	10.8%	14.4%	2.4%	2084
Putumayo	56.4%	15.0%	10.3%	16.0%	2.3%	3241
Quibdó	47.0%	16.9%	11.5%	18.2%	6.3%	1058

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Quindío	49.4%	15.6%	14.6%	18.5%	1.8%	2174
Riohacha	48.8%	14.7%	13.5%	19.3%	3.7%	1682
Rionegro	52.5%	15.3%	13.3%	17.8%	1.1%	826
Risaralda	49.6%	15.1%	13.6%	19.2%	2.4%	2246
Sabaneta	47.3%	16.8%	19.7%	14.4%	1.9%	376
Sahagún	47.6%	17.7%	12.4%	20.1%	2.2%	954
San Andrés	43.2%	17.8%	11.5%	20.3%	7.3%	454
Santa Marta	51.6%	14.1%	13.5%	16.7%	4.2%	4141
Santander	61.1%	12.7%	10.7%	14.1%	1.5%	6451
Sincedejo	50.6%	15.8%	12.8%	18.0%	2.7%	2551
Soacha	50.2%	15.7%	14.8%	17.5%	1.8%	4151
Sogamoso	52.3%	17.9%	14.5%	14.3%	1.0%	1084
Soledad	52.8%	16.3%	11.8%	17.3%	1.8%	3903
Sucre	47.0%	14.1%	15.0%	20.2%	3.7%	5575
Tolima	54.8%	14.3%	12.1%	16.1%	2.6%	7452
Tuluá	55.0%	16.1%	10.1%	16.6%	2.2%	1617
Tumaco	47.2%	12.4%	14.2%	15.9%	10.2%	1864
Tunja	50.2%	17.0%	16.2%	15.0%	1.6%	1330
Turbo	42.9%	15.5%	15.1%	19.0%	7.6%	1472
Uribe	42.0%	15.4%	14.4%	25.4%	2.7%	402
Valle del Cauca	53.1%	15.2%	12.5%	16.5%	2.7%	7166
Valledupar	53.4%	11.3%	13.6%	17.8%	3.9%	3550
Vaupés	40.0%	0.0%	20.0%	40.0%	0.0%	5
Vichada	51.3%	12.9%	10.7%	19.0%	6.1%	458
Villavicencio	50.7%	18.3%	13.9%	15.6%	1.5%	4036
Yopal	50.2%	16.0%	13.7%	17.7%	2.4%	1315
Zipaquirá	50.2%	14.9%	15.7%	18.2%	1.1%	1028
Colombia	51.5%	15.2%	13.4%	16.8%	3.1%	365872

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

• **Pregunta 36.**

De acuerdo con la información anterior, el tamizado es un método apropiado para separar una mezcla de

- A.** piedras y arena.
- B.** sal y arena.
- C.** agua y aceite.
- D.** agua y sal.

• **Estructura**

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

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	33.2%	17.9%	16.9%	24.6%	7.5%	789
Antioquia	46.8%	15.9%	15.7%	19.1%	2.5%	21462
Apartadó	47.8%	17.5%	16.4%	16.5%	1.8%	1238
Arauca	51.0%	16.0%	15.8%	14.8%	2.3%	1996
Armenia	51.6%	18.6%	14.6%	14.5%	0.8%	2026
Atlántico	45.1%	15.7%	14.4%	19.8%	5.0%	4443
Barrancabermeja	50.2%	16.3%	15.5%	15.9%	2.1%	1763
Barranquilla	50.4%	14.9%	15.4%	17.3%	1.9%	8016
Bello	51.0%	17.6%	13.8%	16.6%	1.0%	3061
Bogotá, D.C.	56.8%	14.4%	13.2%	12.8%	2.8%	52956
Bolívar	41.4%	16.2%	16.9%	21.0%	4.4%	7920
Boyacá	50.5%	16.6%	16.1%	15.4%	1.4%	7145
Bucaramanga	59.7%	13.1%	13.1%	12.2%	1.9%	3992
Buenaventura	46.0%	15.1%	13.5%	21.6%	3.9%	2515
Buga	49.3%	15.1%	15.0%	15.6%	5.0%	860
Caldas	49.7%	16.2%	15.1%	17.4%	1.6%	4334
Cali	53.7%	15.4%	12.9%	15.4%	2.7%	14283

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## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Caquetá	42.2%	16.7%	18.6%	20.5%	2.0%	2253
Cartagena	49.9%	15.5%	14.5%	17.0%	3.1%	8170
Cartago	51.3%	17.5%	15.0%	14.4%	1.9%	800
Casanare	45.4%	16.8%	16.5%	19.2%	2.2%	2137
Cauca	47.1%	13.3%	15.0%	20.4%	4.2%	8851
Cesar	46.0%	14.0%	16.7%	20.9%	2.5%	6077
Chocó	39.2%	14.8%	15.3%	24.5%	6.3%	2790
Chía	59.3%	14.5%	13.5%	11.3%	1.4%	968
Ciénaga	43.9%	13.2%	15.3%	21.4%	6.3%	1119
Cundinamarca	54.6%	14.8%	14.5%	14.7%	1.5%	11868
Córdoba	42.7%	15.6%	17.1%	21.7%	2.8%	9379
Cúcuta	54.4%	15.3%	13.8%	15.2%	1.3%	5493
Dosquebradas	53.9%	15.5%	13.6%	16.1%	0.9%	1247
Duitama	68.7%	12.1%	11.6%	7.4%	0.3%	1037
Envigado	57.7%	16.5%	12.4%	13.2%	0.2%	1222
Facatativá	58.6%	14.6%	12.2%	14.0%	0.7%	1068
Florencia	45.9%	17.5%	14.5%	20.5%	1.6%	1472
Floridablanca	60.7%	14.5%	12.9%	10.6%	1.3%	1847
Fusagasugá	54.9%	15.1%	15.3%	13.5%	1.1%	1057
Girardot	50.4%	15.8%	16.3%	14.5%	3.0%	778
Girón	52.8%	14.1%	17.0%	15.2%	0.9%	1013
Guainía	50.0%	0.0%	0.0%	50.0%	0.0%	2
Guaviare	45.4%	15.4%	15.0%	19.7%	4.5%	712
Huila	49.4%	15.0%	15.9%	18.4%	1.4%	6391
Ibagué	53.7%	15.1%	14.5%	15.3%	1.4%	3972
Ipiales	56.9%	15.7%	14.7%	11.9%	0.9%	1003
Itagüí	50.4%	15.3%	16.5%	16.1%	1.7%	1363
Jamundí	48.7%	18.1%	13.8%	17.1%	2.3%	867
La Guajira	44.8%	15.8%	16.3%	19.4%	3.6%	2473
Lorica	42.6%	16.1%	16.1%	22.0%	3.2%	1152
Magangué	43.9%	15.6%	16.5%	20.3%	3.6%	1221
Magdalena	40.9%	14.7%	16.5%	22.4%	5.4%	6256
Maicao	40.6%	16.6%	16.7%	19.9%	6.2%	1430
Malambo	48.6%	13.5%	17.1%	16.3%	4.4%	946
Manizales	56.3%	15.6%	12.1%	15.1%	1.0%	2325
Medellín	47.9%	18.2%	15.7%	16.7%	1.5%	16066
Meta	47.1%	15.3%	18.5%	16.1%	3.0%	3964
Montería	47.4%	15.6%	16.5%	18.5%	1.9%	3787
Mosquera	55.6%	14.1%	12.5%	16.5%	1.4%	880

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Nariño	51.8%	13.6%	13.6%	17.6%	3.4%	7159
Neiva	51.6%	15.2%	15.1%	16.6%	1.5%	3001
Norte de Santander	52.7%	14.8%	14.1%	17.1%	1.3%	5716
Palmira	58.9%	12.9%	13.3%	12.7%	2.1%	2080
Pasto	57.3%	15.7%	13.7%	12.5%	0.8%	3135
Pereira	51.6%	15.9%	14.1%	16.7%	1.7%	3512
Piedecuesta	57.8%	15.2%	13.5%	12.5%	1.0%	1104
Pitalito	47.5%	14.9%	18.0%	18.3%	1.3%	1264
Popayán	57.2%	15.1%	12.5%	13.2%	2.1%	2084
Putumayo	47.8%	16.0%	16.6%	17.9%	1.7%	3241
Quibdó	37.8%	14.6%	16.5%	25.9%	5.2%	1058
Quindío	48.3%	17.4%	15.9%	17.0%	1.4%	2174
Riohacha	44.9%	16.5%	17.7%	18.1%	2.8%	1682
Rionegro	57.7%	15.7%	12.1%	13.7%	0.7%	826
Risaralda	45.4%	16.0%	15.5%	21.3%	1.8%	2246
Sabaneta	60.4%	16.2%	10.9%	12.0%	0.5%	376
Sahagún	49.5%	15.2%	14.4%	18.2%	2.7%	954
San Andrés	39.4%	15.6%	18.9%	20.3%	5.7%	454
Santa Marta	47.9%	14.8%	15.1%	18.5%	3.6%	4141
Santander	54.0%	14.2%	15.3%	15.3%	1.2%	6451
Sincelejo	55.1%	13.7%	13.1%	15.7%	2.4%	2551
Soacha	55.8%	15.1%	13.7%	14.1%	1.4%	4151
Sogamoso	62.2%	14.4%	10.2%	12.5%	0.6%	1084
Soledad	51.7%	14.4%	15.9%	16.5%	1.5%	3903
Sucre	44.7%	15.5%	15.8%	21.1%	2.9%	5575
Tolima	46.4%	16.3%	16.4%	18.9%	2.0%	7452
Tuluá	54.9%	13.5%	13.5%	16.4%	1.7%	1617
Tumaco	34.8%	15.8%	15.2%	24.6%	9.5%	1864
Tunja	61.2%	13.7%	12.0%	11.9%	1.2%	1330
Turbo	34.4%	16.8%	17.1%	24.7%	6.9%	1472
Uribe	37.1%	20.6%	17.9%	22.4%	2.0%	402
Valle del Cauca	49.7%	16.1%	14.4%	17.6%	2.2%	7166
Valledupar	50.3%	14.3%	15.5%	16.6%	3.2%	3550
Vaupés	0.0%	20.0%	60.0%	20.0%	0.0%	5
Vichada	45.0%	13.1%	15.1%	22.1%	4.8%	458
Villavicencio	53.7%	15.4%	15.4%	14.5%	0.9%	4036
Yopal	52.6%	14.8%	17.6%	13.5%	1.4%	1315
Zipaquirá	59.4%	13.7%	13.3%	12.5%	1.0%	1028
Colombia	50.6%	15.3%	14.9%	16.8%	2.5%	365872

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

## • Pregunta 37.

Ana preparó una mezcla de arena con limaduras de hierro, pero su maestra le pidió que volviera a separar estas dos sustancias. El procedimiento más adecuado que debe utilizar Ana para separar la mezcla es

- A. evaporación.
- B. filtración.
- C. decantación.
- D. magnetismo.

## • Estructura

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

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	24.3%	30.2%	15.2%	24.1%	6.2%	789
Antioquia	20.7%	27.3%	15.4%	33.9%	2.7%	21462
Apartadó	19.6%	28.4%	16.3%	33.8%	1.9%	1238
Arauca	16.9%	33.5%	14.7%	33.0%	1.8%	1996
Armenia	17.4%	26.7%	16.9%	38.1%	0.9%	2026
Atlántico	20.4%	26.3%	17.4%	30.8%	5.1%	4443
Barrancabermeja	16.2%	27.2%	16.8%	37.4%	2.3%	1763
Barranquilla	19.9%	25.2%	15.9%	36.7%	2.2%	8016
Bello	18.3%	27.0%	15.7%	37.6%	1.4%	3061
Bogotá, D.C.	14.2%	24.0%	14.8%	44.2%	2.9%	52956
Bolívar	23.2%	29.0%	18.4%	24.9%	4.6%	7920
Boyacá	17.2%	29.4%	15.4%	36.6%	1.4%	7145
Bucaramanga	14.3%	24.8%	14.3%	44.5%	2.0%	3992
Buenaventura	22.9%	26.3%	15.5%	31.0%	4.3%	2515
Buga	17.4%	28.0%	14.0%	35.3%	5.2%	860
Caldas	17.9%	28.7%	15.3%	36.1%	1.9%	4334

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ETC/País	A	B	C	D	Omisión y multimarca	Nº estudiantes
Cali	17.3%	25.1%	14.8%	40.0%	2.8%	14283
Caquetá	21.3%	31.6%	16.0%	28.5%	2.5%	2253
Cartagena	19.7%	25.5%	16.6%	34.8%	3.4%	8170
Cartago	16.0%	27.4%	17.3%	37.1%	2.3%	800
Casanare	19.8%	29.8%	16.3%	31.6%	2.4%	2137
Cauca	20.7%	27.5%	13.4%	34.0%	4.3%	8851
Cesar	22.1%	26.2%	15.0%	33.8%	2.8%	6077
Chocó	21.9%	29.9%	16.8%	24.1%	7.3%	2790
Chía	11.4%	22.5%	15.3%	49.3%	1.5%	968
Ciénaga	22.4%	23.9%	15.0%	31.9%	6.8%	1119
Cundinamarca	15.5%	27.5%	14.8%	40.6%	1.6%	11868
Córdoba	23.4%	28.0%	16.9%	28.6%	3.0%	9379
Cúcuta	16.8%	26.3%	16.1%	39.5%	1.4%	5493
Dosquebradas	18.6%	25.2%	14.8%	40.3%	1.1%	1247
Duitama	8.3%	19.9%	14.9%	56.9%	0.1%	1037
Envigado	11.3%	22.9%	15.2%	50.1%	0.5%	1222
Facatativá	13.1%	24.3%	15.6%	45.9%	1.0%	1068
Florencia	23.6%	27.7%	15.6%	31.0%	2.0%	1472
Floridablanca	13.8%	24.7%	14.8%	45.2%	1.6%	1847
Fusagasugá	18.4%	22.8%	15.7%	42.0%	1.0%	1057
Girardot	19.0%	23.5%	14.5%	38.9%	4.0%	778
Girón	18.3%	28.9%	16.2%	35.4%	1.2%	1013
Guainía	50.0%	0.0%	50.0%	0.0%	0.0%	2
Guaviare	18.5%	31.0%	17.1%	28.7%	4.6%	712
Huila	20.6%	26.8%	13.7%	37.3%	1.7%	6391
Ibagué	16.5%	25.9%	15.4%	40.4%	1.7%	3972
Ipiales	12.6%	28.7%	16.6%	41.1%	1.1%	1003
Itagüí	16.8%	27.7%	18.0%	35.5%	2.0%	1363
Jamundí	17.8%	27.6%	15.6%	36.3%	2.8%	867
La Guajira	22.8%	26.4%	15.6%	31.6%	3.7%	2473
Lorica	22.3%	31.2%	17.4%	25.9%	3.3%	1152
Magangué	20.6%	27.8%	19.8%	27.2%	4.5%	1221
Magdalena	23.0%	27.8%	16.5%	26.5%	6.2%	6256
Maicao	20.8%	26.2%	18.1%	27.8%	7.1%	1430
Malambo	21.7%	22.3%	15.8%	36.2%	4.1%	946
Manizales	16.0%	27.3%	15.1%	40.6%	1.1%	2325
Medellín	18.6%	26.9%	17.9%	34.8%	1.9%	16066
Meta	19.1%	27.3%	15.8%	34.6%	3.3%	3964
Montería	20.9%	26.5%	18.1%	32.2%	2.4%	3787
Mosquera	13.1%	24.3%	13.8%	47.0%	1.8%	880

Continúa en la siguiente página

## GRADO 5° - CIENCIAS NATURALES

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Nariño	17.6%	27.2%	12.1%	39.3%	3.7%	7159
Neiva	18.3%	27.7%	16.1%	36.2%	1.8%	3001
Norte de Santander	18.5%	27.7%	15.3%	37.0%	1.5%	5716
Palmira	15.3%	25.4%	15.2%	42.0%	2.0%	2080
Pasto	14.8%	25.5%	14.4%	44.4%	0.9%	3135
Pereira	17.9%	24.5%	15.9%	39.9%	1.8%	3512
Piedecuesta	15.9%	26.3%	15.3%	41.0%	1.5%	1104
Pitalito	17.6%	27.5%	15.0%	38.2%	1.7%	1264
Popayán	16.7%	25.0%	13.9%	42.4%	2.2%	2084
Putumayo	19.1%	31.3%	14.8%	32.7%	2.0%	3241
Quibdó	20.8%	30.6%	16.3%	26.7%	5.6%	1058
Quindío	19.2%	28.3%	17.3%	33.4%	1.7%	2174
Riohacha	22.5%	27.3%	16.9%	30.0%	3.2%	1682
Rionegro	14.3%	25.7%	16.7%	42.3%	1.1%	826
Risaralda	19.1%	28.4%	15.6%	34.6%	2.3%	2246
Sabaneta	13.8%	27.7%	13.8%	43.9%	0.8%	376
Sahagún	21.0%	27.6%	17.7%	31.4%	2.3%	954
San Andrés	20.9%	24.4%	17.8%	31.1%	5.7%	454
Santa Marta	20.2%	24.4%	15.5%	35.9%	4.0%	4141
Santander	17.1%	27.1%	14.0%	40.4%	1.4%	6451
Sincelejo	17.6%	25.0%	15.6%	39.0%	2.9%	2551
Soacha	15.7%	25.5%	14.0%	43.2%	1.5%	4151
Sogamoso	12.8%	23.5%	16.3%	46.7%	0.6%	1084
Soledad	18.8%	25.3%	16.1%	38.1%	1.6%	3903
Sucre	23.9%	27.3%	17.3%	28.1%	3.4%	5575
Tolima	21.4%	28.0%	13.9%	34.3%	2.5%	7452
Tuluá	15.9%	26.2%	13.9%	42.1%	2.0%	1617
Tumaco	23.8%	26.7%	16.8%	22.7%	10.0%	1864
Tunja	13.7%	24.4%	15.9%	44.7%	1.4%	1330
Turbo	25.7%	25.1%	18.4%	23.0%	7.7%	1472
Uribe	27.6%	29.6%	18.4%	20.4%	4.0%	402
Valle del Cauca	19.3%	27.6%	15.0%	35.7%	2.3%	7166
Valledupar	19.7%	24.3%	15.6%	37.1%	3.4%	3550
Vaupés	60.0%	20.0%	0.0%	20.0%	0.0%	5
Vichada	22.7%	27.5%	14.8%	28.2%	6.8%	458
Villavicencio	15.6%	26.0%	15.7%	41.4%	1.3%	4036
Yopal	16.6%	26.5%	15.3%	39.8%	1.8%	1315
Zipaquirá	16.1%	24.9%	14.5%	43.9%	0.6%	1028
Colombia	18.3%	26.5%	15.5%	36.9%	2.7%	365872

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

• **Pregunta 38.**

La dureza de los materiales se mide en una escala de uno a nueve (1-9) y aumenta en orden ascendente. María quiere construir un soporte para un tanque pesado lleno de agua. Para ello, María cuenta con cuatro láminas de diferente dureza, tal como se muestra en la siguiente tabla.

<b>Material (lámina)</b>	<b>Dureza</b>
<i>W</i>	2
<i>X</i>	4
<i>Y</i>	7
<i>Z</i>	8

De acuerdo con la información anterior, la lámina que debe utilizar María para construir el soporte es

- A.** *W*.
- B.** *X*.
- C.** *Y*.
- D.** *Z*.

• **Estructura**

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

Continúa en la siguiente página

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	10.4%	16.1%	16.3%	48.9%	8.2%	789
Antioquia	9.3%	12.9%	14.4%	60.5%	2.9%	21462
Apartadó	12.3%	15.8%	16.6%	53.2%	2.2%	1238
Arauca	8.9%	13.2%	14.2%	61.6%	2.1%	1996
Armenia	9.3%	11.4%	16.4%	61.5%	1.3%	2026
Atlántico	10.6%	14.5%	16.0%	53.2%	5.6%	4443
Barrancabermeja	10.3%	12.8%	12.9%	61.5%	2.4%	1763
Barranquilla	9.8%	12.1%	13.8%	62.0%	2.4%	8016
Bello	8.0%	10.4%	14.1%	65.9%	1.5%	3061
Bogotá, D.C.	6.3%	9.2%	12.2%	69.1%	3.1%	52956
Bolívar	12.4%	16.8%	18.7%	46.9%	5.2%	7920
Boyacá	9.2%	11.7%	15.5%	61.9%	1.7%	7145
Bucaramanga	6.1%	9.2%	12.5%	70.0%	2.3%	3992
Buenaventura	11.2%	13.8%	14.2%	55.8%	5.0%	2515
Buga	7.7%	9.1%	13.8%	63.4%	6.0%	860
Caldas	8.2%	12.7%	13.1%	63.8%	2.2%	4334
Cali	7.5%	10.1%	11.5%	67.9%	3.1%	14283
Caquetá	9.9%	14.9%	17.6%	55.1%	2.5%	2253
Cartagena	10.6%	12.8%	15.1%	57.9%	3.6%	8170
Cartago	9.5%	11.9%	14.4%	61.9%	2.4%	800
Casanare	8.3%	13.6%	14.2%	61.6%	2.4%	2137
Cauca	8.9%	12.8%	14.4%	59.1%	4.7%	8851
Cesar	10.5%	13.2%	14.5%	58.8%	3.0%	6077
Chocó	10.6%	16.5%	20.2%	44.2%	8.5%	2790
Chía	6.0%	6.9%	11.2%	74.2%	1.8%	968
Ciénaga	9.4%	13.9%	12.2%	57.9%	6.6%	1119
Cundinamarca	7.1%	10.6%	13.0%	67.7%	1.6%	11868
Córdoba	11.3%	15.6%	17.0%	52.7%	3.4%	9379
Cúcuta	7.4%	12.1%	13.0%	65.8%	1.6%	5493
Dosquebradas	5.9%	9.3%	11.7%	71.9%	1.2%	1247
Duitama	6.0%	7.4%	12.3%	73.9%	0.4%	1037
Envigado	7.4%	7.9%	11.0%	73.2%	0.5%	1222
Facatativá	7.2%	9.7%	10.5%	71.5%	1.0%	1068
Florencia	9.2%	13.3%	15.8%	59.1%	2.5%	1472
Floridablanca	6.4%	9.2%	11.3%	71.4%	1.7%	1847
Fusagasugá	7.7%	9.4%	14.5%	67.3%	1.2%	1057
Girardot	6.3%	11.2%	13.6%	64.8%	4.1%	778

Continúa en la siguiente página



ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	8.2%	11.1%	13.3%	65.9%	1.5%	1013
Guainía	0.0%	0.0%	0.0%	100.0%	0.0%	2
Guaviare	9.7%	16.4%	17.1%	51.3%	5.5%	712
Huila	8.6%	11.3%	14.5%	64.0%	1.6%	6391
Ibagué	6.6%	11.0%	11.7%	68.8%	1.9%	3972
Ipiales	7.3%	11.6%	12.7%	67.0%	1.5%	1003
Itagüí	9.9%	13.2%	15.6%	59.1%	2.1%	1363
Jamundí	9.5%	12.1%	12.8%	62.9%	2.8%	867
La Guajira	12.8%	16.8%	15.6%	50.6%	4.2%	2473
Lorica	12.6%	15.2%	18.8%	49.4%	4.1%	1152
Magangué	10.6%	15.5%	17.0%	52.0%	4.8%	1221
Magdalena	11.8%	16.1%	16.6%	49.2%	6.3%	6256
Maicao	10.2%	17.5%	18.3%	46.6%	7.3%	1430
Malambo	10.0%	12.8%	12.9%	59.8%	4.4%	946
Manizales	7.1%	10.3%	13.5%	67.9%	1.3%	2325
Medellín	10.3%	13.0%	15.4%	59.3%	2.0%	16066
Meta	8.3%	13.1%	14.4%	60.6%	3.6%	3964
Montería	11.0%	13.2%	15.6%	57.4%	2.8%	3787
Mosquera	5.3%	7.4%	12.3%	73.1%	1.9%	880
Nariño	7.7%	11.1%	12.2%	65.1%	3.9%	7159
Neiva	8.4%	11.6%	13.8%	64.2%	2.0%	3001
Norte de Santander	9.2%	11.3%	12.9%	64.7%	1.9%	5716
Palmira	6.3%	8.7%	10.7%	72.1%	2.2%	2080
Pasto	6.3%	10.3%	13.0%	69.6%	0.9%	3135
Pereira	7.2%	10.2%	11.8%	68.3%	2.5%	3512
Piedecuesta	7.2%	10.8%	11.6%	68.5%	1.9%	1104
Pitalito	10.3%	11.2%	14.4%	61.9%	2.3%	1264
Popayán	6.2%	8.6%	11.6%	71.5%	2.1%	2084
Putumayo	8.6%	14.3%	15.8%	59.0%	2.2%	3241
Quibdó	14.2%	14.7%	16.6%	48.1%	6.3%	1058
Quindío	9.2%	11.4%	14.4%	63.2%	1.8%	2174
Riohacha	10.8%	15.5%	17.6%	52.2%	3.9%	1682
Rionegro	7.6%	8.7%	10.4%	72.4%	0.8%	826
Risaralda	9.2%	11.7%	12.5%	64.2%	2.5%	2246
Sabaneta	8.0%	10.1%	11.2%	69.7%	1.1%	376
Sahagún	9.6%	13.9%	15.3%	58.1%	3.0%	954
San Andrés	11.9%	15.9%	19.2%	46.9%	6.2%	454
Santa Marta	10.0%	12.7%	12.5%	60.6%	4.2%	4141
Santander	7.1%	10.3%	12.6%	68.4%	1.6%	6451
Sincelejo	8.5%	11.0%	14.5%	63.0%	2.9%	2551

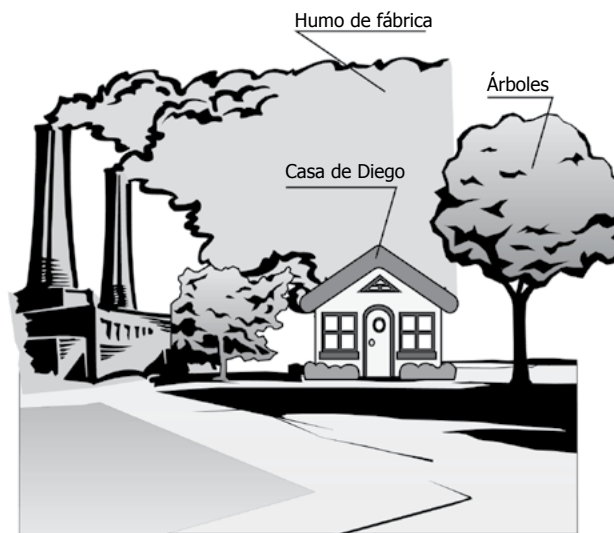
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	6.8%	10.0%	12.6%	68.8%	1.8%	4151
Sogamoso	6.3%	9.1%	10.9%	72.7%	1.0%	1084
Soledad	8.7%	12.7%	13.0%	63.9%	1.7%	3903
Sucre	11.2%	16.0%	16.6%	52.0%	4.2%	5575
Tolima	8.8%	12.0%	15.0%	61.2%	3.0%	7452
Tuluá	8.5%	8.8%	12.0%	68.6%	2.1%	1617
Tumaco	10.1%	16.3%	16.4%	45.8%	11.5%	1864
Tunja	6.0%	10.5%	14.4%	67.5%	1.7%	1330
Turbo	10.1%	18.6%	19.7%	44.0%	7.6%	1472
Uribe	7.7%	19.4%	17.9%	50.2%	4.7%	402
Valle del Cauca	8.9%	11.5%	12.6%	64.2%	2.7%	7166
Valledupar	9.5%	11.0%	11.8%	63.8%	3.9%	3550
Vaupés	20.0%	40.0%	20.0%	20.0%	0.0%	5
Vichada	10.9%	12.2%	12.4%	58.1%	6.3%	458
Villavicencio	7.3%	11.5%	12.9%	66.7%	1.6%	4036
Yopal	8.5%	11.5%	13.8%	64.2%	2.1%	1315
Zipaquirá	5.4%	10.7%	13.4%	69.6%	0.9%	1028
Colombia	8.6%	11.9%	13.9%	62.5%	3.0%	365872

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

• **Pregunta 39.**

Diego vive en una zona que presenta un alto índice de contaminación atmosférica, como se ve en la siguiente imagen



Diego ha notado que al correr se cansa rápidamente. Posiblemente, Diego está enfermo de sus

- A. pulmones, porque los árboles le proporcionan mucho oxígeno.
- B. piernas, porque el humo afecta sus músculos.
- C. piernas, porque los árboles le impiden caminar libremente.
- D. pulmones, porque el humo afecta su respiración.

• **Estructura**

<b>Competencia</b>	Explicación de fenómenos
<b>Componente</b>	CTS
<b>Afirmación</b>	Valorar y comprender la necesidad de seguir hábitos para mantener la salud y el entorno.
<b>Nivel de desempeño</b>	Satisfactorio
<b>Respuesta Correcta</b>	D

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

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	14.8%	9.3%	10.1%	57.8%	8.0%	789
Antioquia	14.3%	9.0%	6.9%	66.9%	3.0%	21462
Apartadó	16.7%	11.2%	9.8%	60.5%	1.8%	1238
Arauca	12.9%	8.5%	7.4%	68.8%	2.4%	1996
Armenia	15.4%	7.9%	6.9%	68.8%	1.0%	2026
Atlántico	14.8%	11.8%	8.9%	58.5%	5.9%	4443
Barrancabermeja	14.5%	9.9%	8.8%	64.3%	2.5%	1763
Barranquilla	13.8%	9.6%	7.5%	66.8%	2.3%	8016
Bello	12.5%	8.2%	5.2%	72.4%	1.7%	3061
Bogotá, D.C.	10.8%	6.6%	5.1%	74.4%	3.1%	52956
Bolívar	18.4%	12.4%	11.4%	52.5%	5.3%	7920
Boyacá	12.2%	8.1%	7.0%	70.9%	1.7%	7145
Bucaramanga	11.3%	7.0%	5.2%	74.2%	2.2%	3992
Buenaventura	15.9%	10.7%	9.2%	59.3%	4.8%	2515
Buga	12.9%	7.2%	6.6%	67.7%	5.6%	860
Caldas	11.7%	7.8%	6.5%	71.9%	2.1%	4334
Cali	11.9%	7.7%	5.7%	71.8%	2.9%	14283
Caquetá	14.5%	8.7%	6.5%	68.0%	2.3%	2253
Cartagena	15.3%	10.6%	8.3%	62.2%	3.5%	8170
Cartago	11.4%	7.8%	5.9%	72.8%	2.3%	800
Casanare	13.0%	8.9%	6.2%	69.3%	2.6%	2137
Cauca	13.6%	8.5%	6.7%	66.4%	4.9%	8851
Cesar	13.9%	9.8%	7.0%	66.2%	3.1%	6077
Chocó	17.2%	12.3%	10.5%	52.2%	7.7%	2790
Chía	9.4%	5.0%	4.5%	79.3%	1.8%	968
Ciénaga	14.0%	10.2%	8.0%	61.7%	6.1%	1119
Cundinamarca	11.5%	6.7%	5.7%	74.3%	1.8%	11868
Córdoba	16.1%	11.1%	9.3%	60.2%	3.3%	9379
Cúcuta	13.5%	8.5%	6.6%	69.7%	1.6%	5493
Dosquebradas	10.7%	7.8%	4.4%	76.1%	1.0%	1247
Duitama	8.1%	5.5%	4.3%	82.0%	0.1%	1037
Envigado	8.7%	5.1%	5.6%	80.1%	0.5%	1222
Facatativá	10.0%	6.7%	5.2%	76.9%	1.1%	1068
Florencia	14.2%	8.8%	6.9%	67.7%	2.4%	1472
Floridablanca	11.0%	6.7%	5.3%	75.4%	1.6%	1847
Fusagasugá	12.6%	7.8%	5.3%	72.8%	1.5%	1057
Girardot	12.9%	10.0%	6.6%	66.8%	3.7%	778

Continúa en la siguiente página





ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	13.3%	8.2%	6.5%	70.6%	1.4%	1013
Guainía	50.0%	50.0%	0.0%	0.0%	0.0%	2
Guaviare	15.2%	9.0%	5.5%	64.2%	6.2%	712
Huila	12.3%	8.7%	5.9%	71.2%	1.8%	6391
Ibagué	12.4%	7.9%	5.7%	72.5%	1.6%	3972
Ipiales	10.3%	5.8%	5.9%	76.9%	1.2%	1003
Itagüí	14.4%	7.7%	8.2%	67.7%	2.0%	1363
Jamundí	12.1%	8.8%	6.5%	69.8%	2.9%	867
La Guajira	15.8%	11.0%	8.8%	60.1%	4.4%	2473
Lorica	16.1%	12.2%	11.6%	55.8%	4.3%	1152
Magangué	18.3%	11.9%	8.0%	57.1%	4.8%	1221
Magdalena	15.0%	12.5%	9.7%	56.6%	6.1%	6256
Maicao	16.0%	11.5%	9.2%	55.4%	7.9%	1430
Malambo	13.1%	10.9%	7.8%	64.0%	4.2%	946
Manizales	11.5%	5.9%	5.5%	75.7%	1.2%	2325
Medellín	15.1%	9.4%	8.1%	65.4%	2.0%	16066
Meta	14.0%	8.6%	6.5%	67.5%	3.5%	3964
Montería	14.8%	11.1%	8.4%	62.9%	2.7%	3787
Mosquera	9.4%	5.7%	4.3%	78.5%	2.0%	880
Nariño	10.6%	6.7%	4.7%	74.1%	3.9%	7159
Neiva	13.1%	8.6%	6.2%	70.2%	1.9%	3001
Norte de Santander	12.3%	9.0%	6.7%	70.1%	1.8%	5716
Palmira	11.3%	6.5%	5.3%	74.6%	2.3%	2080
Pasto	9.6%	6.6%	5.6%	77.2%	1.1%	3135
Pereira	11.2%	7.5%	5.2%	73.7%	2.4%	3512
Piedecuesta	12.4%	6.5%	6.9%	72.6%	1.5%	1104
Pitalito	13.8%	8.0%	6.9%	69.4%	2.0%	1264
Popayán	11.3%	6.7%	4.8%	75.2%	2.0%	2084
Putumayo	12.8%	8.7%	7.8%	68.6%	2.1%	3241
Quibdó	19.8%	10.9%	8.7%	54.3%	6.3%	1058
Quindío	14.7%	9.1%	6.5%	67.6%	2.2%	2174
Riohacha	16.8%	12.2%	9.3%	58.1%	3.6%	1682
Rionegro	8.8%	6.1%	5.8%	78.3%	1.0%	826
Risaralda	12.9%	8.5%	6.1%	69.9%	2.6%	2246
Sabaneta	11.2%	6.9%	7.4%	73.7%	0.8%	376
Sahagún	15.9%	9.4%	8.8%	63.3%	2.5%	954
San Andrés	17.6%	13.0%	9.3%	53.7%	6.4%	454
Santa Marta	14.5%	9.4%	7.4%	64.1%	4.6%	4141
Santander	11.5%	7.3%	5.2%	74.4%	1.5%	6451
Sincelejo	13.9%	10.1%	6.9%	66.0%	3.1%	2551

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	12.9%	6.9%	5.0%	73.2%	2.0%	4151
Sogamoso	10.3%	5.9%	4.3%	78.6%	0.8%	1084
Soledad	13.2%	9.4%	7.0%	68.8%	1.6%	3903
Sucre	17.1%	11.7%	10.5%	56.9%	3.8%	5575
Tolima	13.7%	8.9%	6.9%	67.7%	2.8%	7452
Tuluá	11.5%	6.7%	5.9%	73.7%	2.2%	1617
Tumaco	16.4%	11.4%	10.0%	52.0%	10.2%	1864
Tunja	11.4%	7.2%	5.5%	74.1%	1.7%	1330
Turbo	17.8%	13.7%	10.5%	50.0%	8.0%	1472
Uribe	20.1%	11.2%	12.7%	51.5%	4.5%	402
Valle del Cauca	13.0%	8.2%	6.3%	69.8%	2.7%	7166
Valledupar	13.0%	9.9%	6.5%	66.6%	3.9%	3550
Vaupés	0.0%	40.0%	20.0%	40.0%	0.0%	5
Vichada	16.2%	8.1%	9.4%	59.8%	6.6%	458
Villavicencio	13.3%	7.6%	5.7%	72.1%	1.4%	4036
Yopal	10.9%	9.0%	6.7%	71.7%	1.7%	1315
Zipaquirá	12.5%	5.5%	5.5%	75.7%	0.8%	1028
Colombia	13.2%	8.6%	6.8%	68.5%	3.0%	365872

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

