

VIRGINIA STANDARDS OF LEARNING

Spring 2007 Released Test

GRADE 3 SCIENCE

Form S0117, CORE 1

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DIRECTIONS

Read each question carefully and choose the best answer. Then mark the space in the answer document for the answer you have chosen.

SAMPLE

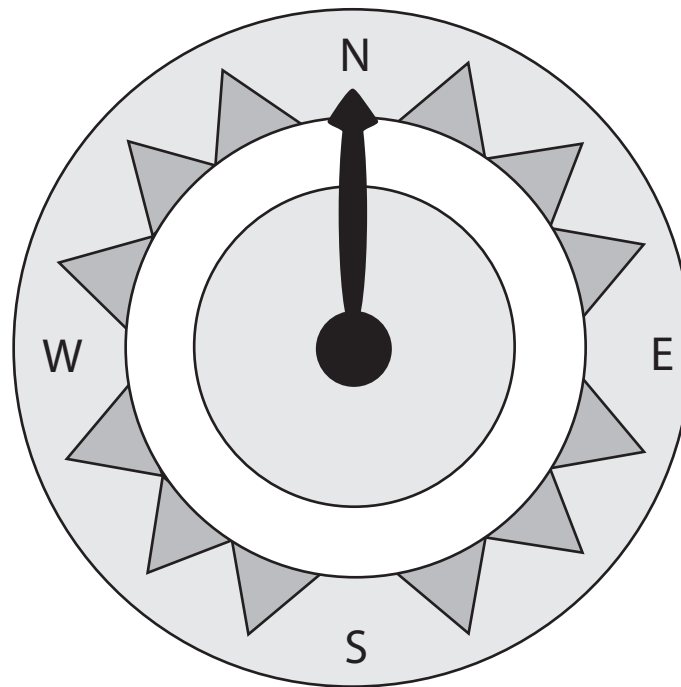
When the Earth is seen from outer space, it looks mainly blue. This is because most of the Earth is covered with —

- A** ice
- B** mountains
- C** oceans
- D** deserts

1 What are adult cardinals able to do that baby cardinals are unable to do?

- A** Fly
- B** Make noise
- C** Breathe air
- D** Sleep

2

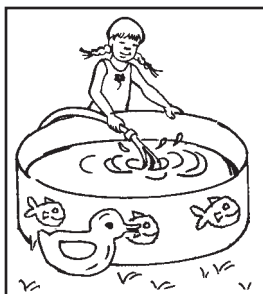


What makes the needle on the compass in the picture point north?

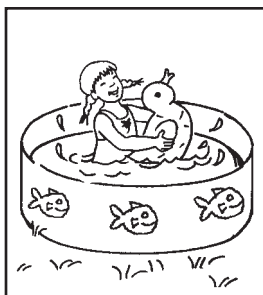
- F** Rainfall
- G** Evaporation
- H** Wind currents
- J** Magnetism

3 These pictures can be put in order to tell a story. Which of these pictures MOST likely comes last?

A



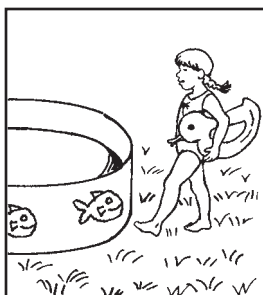
B



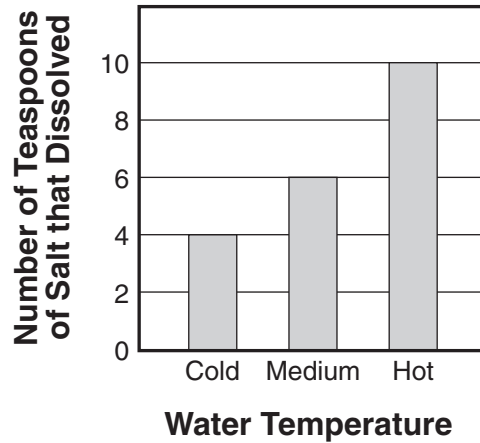
C



D



4



The graph shows what happened when salt was added to water in a glass. According to the graph, which of these is correct?

- F** Salt tastes different when water is heated.
- G** Salt will cause water to heat up.
- H** Salt is used to make hot water.
- J** Salt dissolves more easily in hot water.

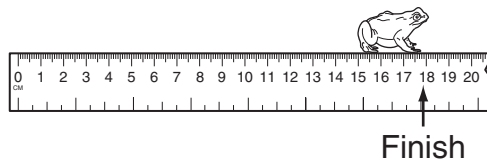
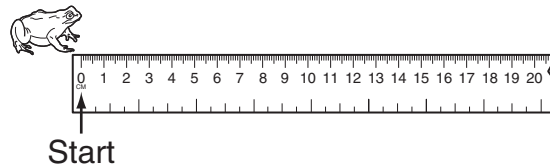
5 A student wants to look under a heavy rock. Which simple machine would be BEST to use to lift the rock?

- A** Wheel and axle
- B** Lever
- C** Inclined plane
- D** Screw

6 A wetland habitat can continue to support the birds and fish that live there if people —

- F** drain the water away
- G** flood the highest parts of the land
- H** leave the land alone
- J** use the land for planting crops

7



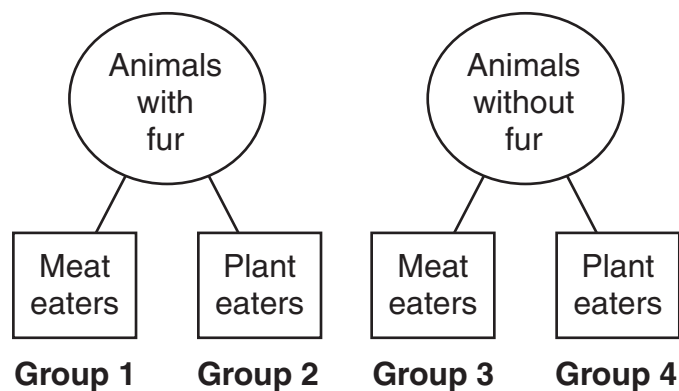
Using the picture, which measurement is closest to how far the frog jumped?

- A** 12 centimeters (cm)
- B** 14 centimeters (cm)
- C** 18 centimeters (cm)
- D** 20 centimeters (cm)

8 Which sense is used to tell if there is sugar in a glass of tea?

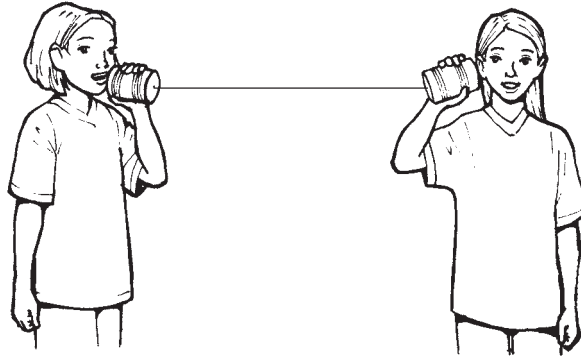
- F** Touch
- G** Hearing
- H** Smell
- J** Taste

9



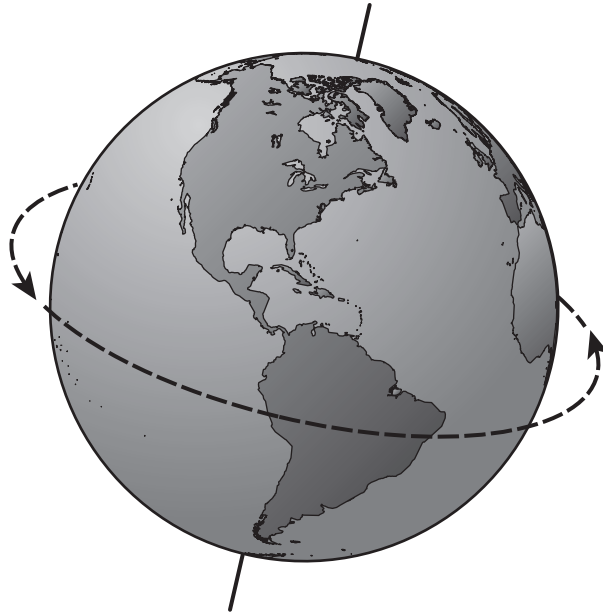
A rattlesnake belongs in which of the above groups?

- A** Group 1
- B** Group 2
- C** Group 3
- D** Group 4



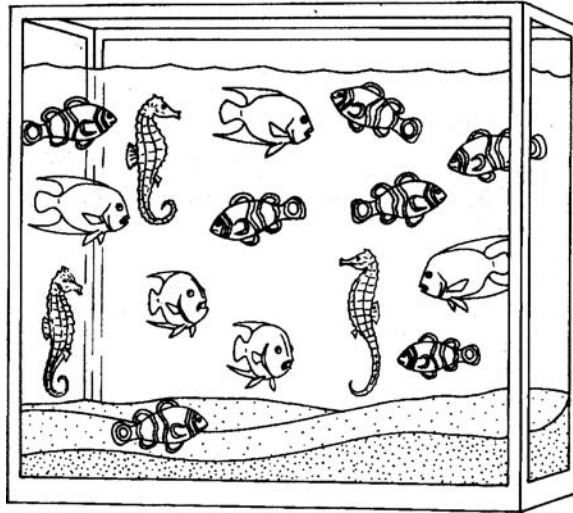
These girls can hear each other because the string —

- F** vibrates
- G** stretches
- H** is strong
- J** is long

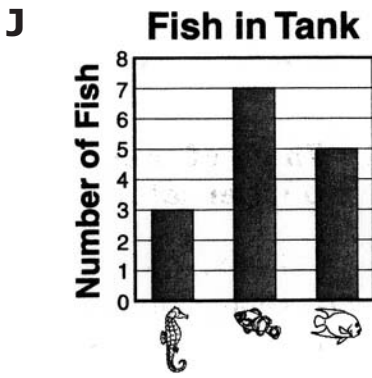
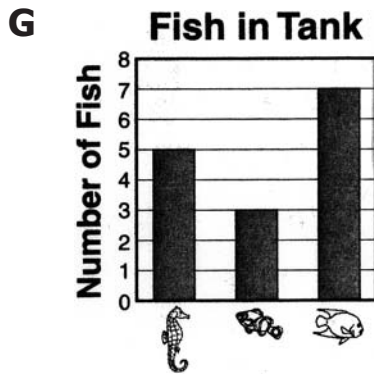
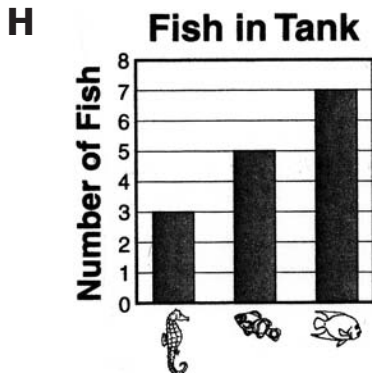
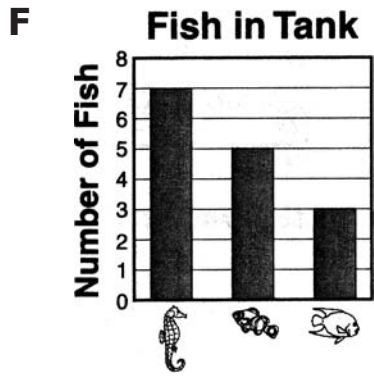


Which of the following describes the motion of Earth shown in this picture?

- A** Vibrating
- B** Rotating
- C** Revolving
- D** Falling



Which graph BEST shows how many of each fish are in the tank?

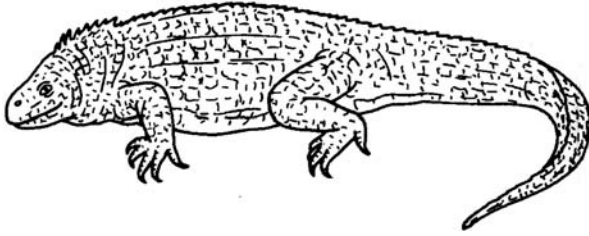


13 Which of these is an example of liquid water?

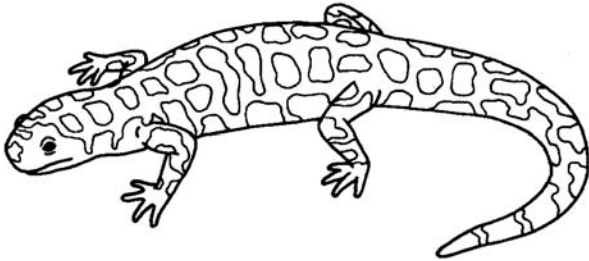
- A** Frost
- B** Ice
- C** Rain
- D** Steam

14 Salamanders have a tail, smooth skin, and feet with no claws.
Which of these animals is a salamander?

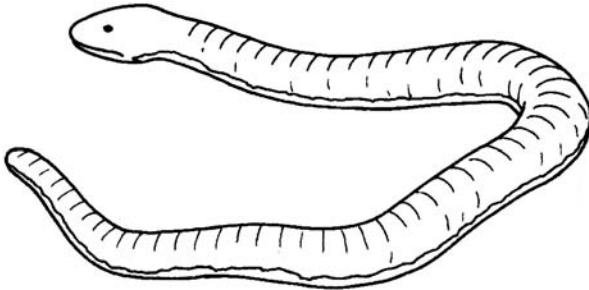
F



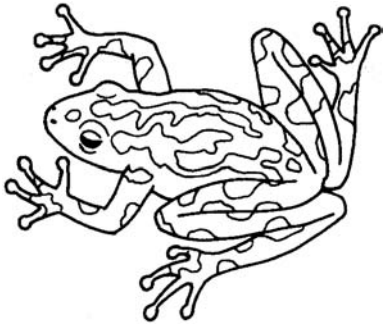
G



H



J

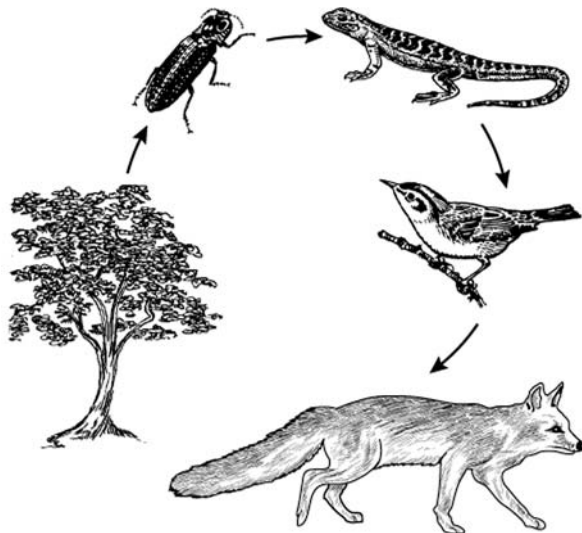


15 Which of these warms most of the air, water, and land on Earth?

- A** Coal
- B** Electricity
- C** Sunlight
- D** Wind

16 If water gets into the crack of a rock and then freezes, the rock will MOST likely —

- F** break apart
- G** be able to float
- H** become larger
- J** change colors

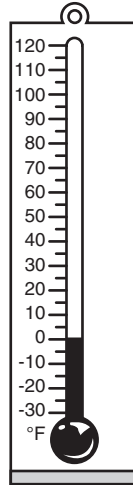


This food chain is MOST likely to be found in what type of environment?

- A** A stream
- B** A marshland
- C** An ocean
- D** A forest

18 Which of these does the MOST harm to the air?

- F** Chopping down trees with an ax in the backyard
- G** Collecting fall leaves
- H** Cutting grass with a gas-powered lawnmower
- J** Picking colorful wildflowers along the highway

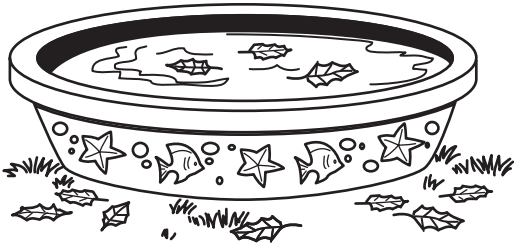


Which of these shows the day when this thermometer was left outside?

A



B



C



D

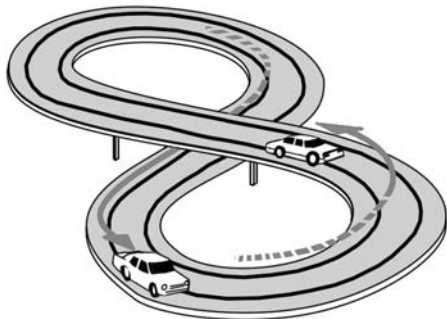


20 Which diagram shows a back-and-forth motion?

F



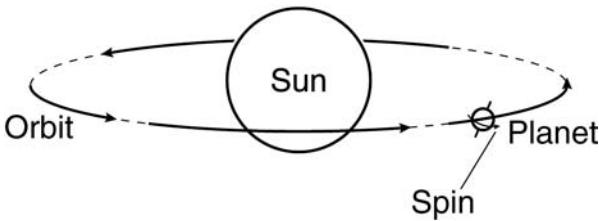
G

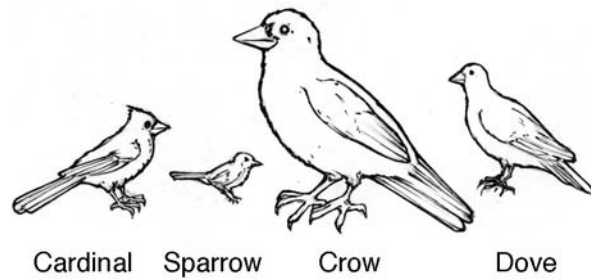


H



J





The drawing compares the size of four different birds. How would you arrange the birds in order from smallest to largest?

- A** Cardinal, sparrow, crow, dove
- B** Sparrow, cardinal, crow, dove
- C** Crow, cardinal, dove, sparrow
- D** Sparrow, cardinal, dove, crow

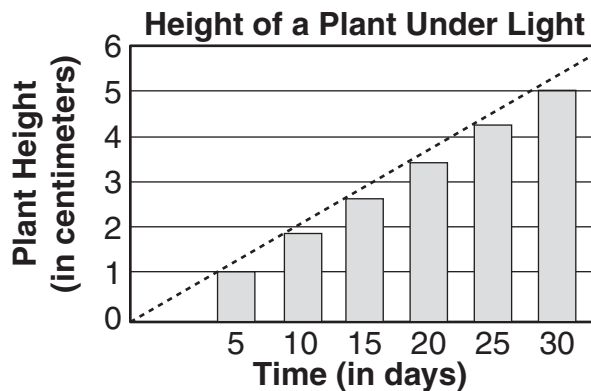
22 Barry collected four different rocks. The rock with the GREATEST mass will feel the —

- F** heaviest
- G** smoothest
- H** sharpest
- J** hardest

23 A dog gets the energy it needs to run from —

- A** the air
- B** the Sun
- C** food
- D** water

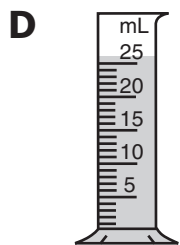
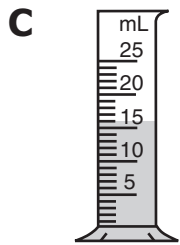
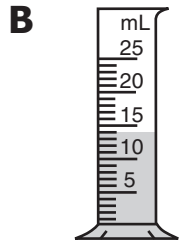
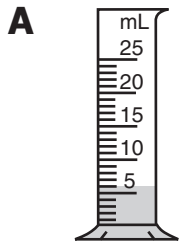
24



A girl kept a plant under a light for 30 days. She measured how tall the plant was every 5 days. The graph shows the results. What conclusion can be drawn from the graph?

- F** A plant kept under light stays the same size.
- G** A plant kept under light gets taller with time.
- H** A plant kept under light gets shorter with time.
- J** A plant kept under light is hard to measure.

25 Which of these graduated cylinders contains 16 mL of water?



Characteristics of Three Plants

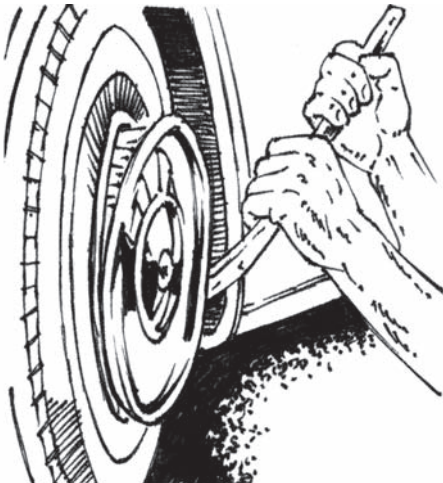
Red barberry	Red maple	Snowball flower
Full sun	Part Shade	Full sun
Loses leaves	Loses leaves	Loses leaves
Shrub	Tree	Shrub
Has thorns	Has no thorns	Has no thorns

These three plants are grouped together because all three —

- F** need some shade
- G** lose their leaves
- H** are shrubs
- J** have thorns

27 Which of these shows a pulley?

A



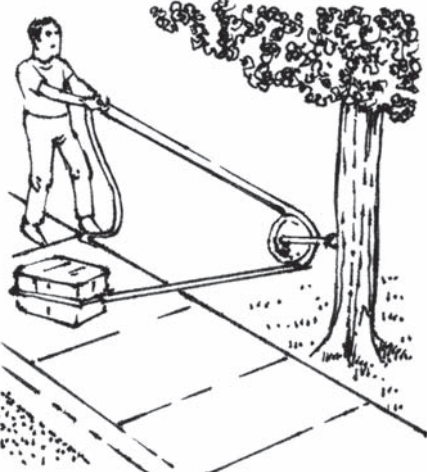
C

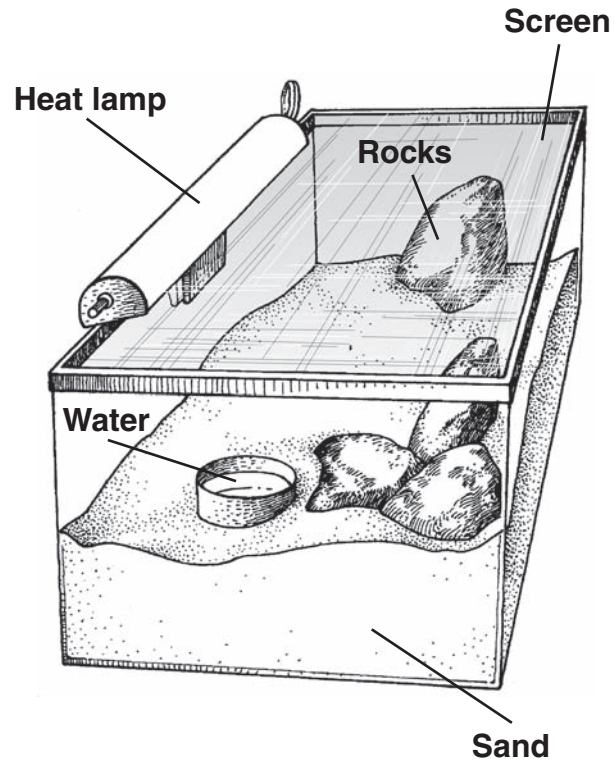


B



D





This habitat is BEST for which type of pet?

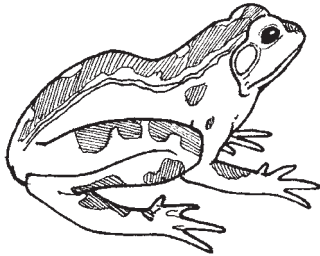
- F** Lizard
- G** Butterfly
- H** Fish
- J** Bird

29 Which of these living things is a producer in a food chain?

A



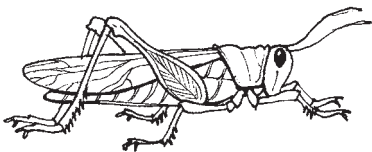
B



C



D



30 A summer day begins with a clear, sunny sky. Then, dark clouds form in the afternoon. What type of weather will MOST likely happen next?

- F** Sleet and snow
- G** Rain and thunder
- H** Wind and snow
- J** Fog and wind

31 If a wooded area is cleared and corn is planted, what will MOST likely happen?

- A** Animal habitats will be destroyed.
- B** The air will become polluted.
- C** Weather patterns will change.
- D** Underground streams will get polluted.

32 Cows are farm animals that eat only plants. Which of these kinds of living things is a cow?

- F** Decomposer
- G** Herbivore
- H** Carnivore
- J** Producer

33 Which of these causes the MOST evaporation of water from a lake?

- A** Freezing of the lake
- B** Heat from the Sun
- C** Melting snow forming streams
- D** Volcanic activity near the lake

34 The seeds of an oak come from the —

- F** fruit
- G** leaf
- H** root
- J** stem

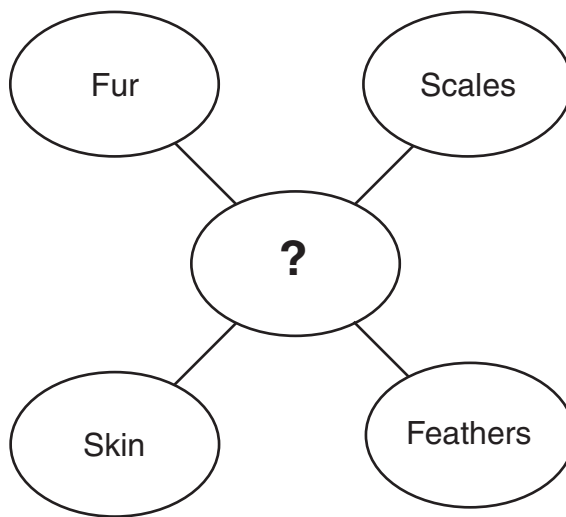
35 When a tadpole grows, its gills change into lungs. What does it now need to survive?

- A** Air
- B** Water
- C** Soil
- D** Fins

36 A student wants to cut a piece of string for a class activity. The length of the string is measured **BEST** in which units?

- F** Gallons
- G** Liters
- H** Miles
- J** Centimeters

37

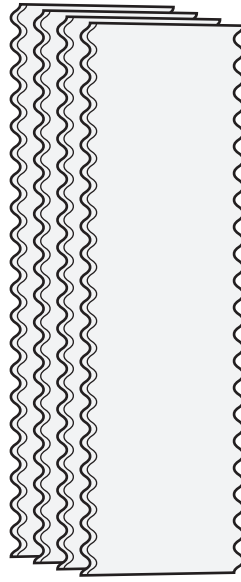


Which of these belongs in the center?

- A** Things that cover animal bodies
- B** Things that make the animal smaller
- C** Things that keep animal bodies cool
- D** Things that help animal bodies get oxygen



Spaghetti



Lasagna

Which word tells how a lasagna noodle looks compared to a spaghetti noodle?

- F** Longer
- G** Lighter
- H** Smaller
- J** Wider

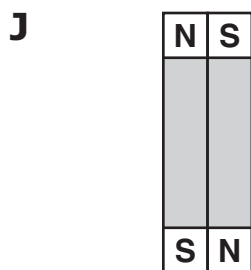
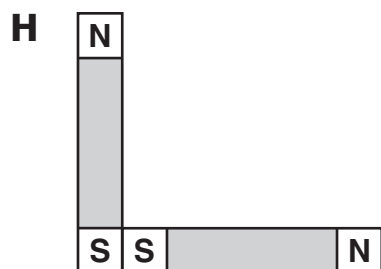
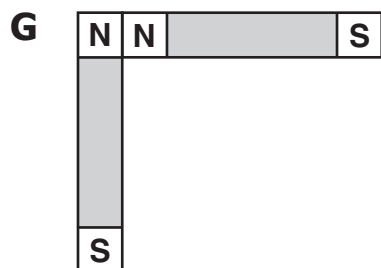
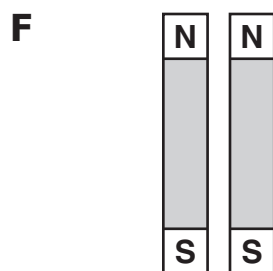
- 39** An experiment tests how many minutes students take to finish their lunches in the school cafeteria. The chart shows the average times for grades 3, 4, 5, and 6.

Grade Level	Average Time in Minutes
3	15
4	25
5	20
6	20

At which grade level do the students spend MOST of the 30-minute lunch period eating their lunches?

- A** Grade 3
- B** Grade 4
- C** Grade 5
- D** Grade 6

40 Which picture shows the way that two magnets will attract?



Answer Key-3005-S0117

Test Sequence Number	Correct Answer	Reporting Category	Reporting Category Description
1	A	004	Earth / Space Systems and Cycles
2	J	002	Force, Motion, Energy, and Matter
3	C	004	Earth / Space Systems and Cycles
4	J	002	Force, Motion, Energy, and Matter
5	B	002	Force, Motion, Energy, and Matter
6	H	004	Earth / Space Systems and Cycles
7	C	001	Scientific Investigation, Reasoning, and Logic
8	J	001	Scientific Investigation, Reasoning, and Logic
9	C	001	Scientific Investigation, Reasoning, and Logic
10	F	002	Force, Motion, Energy, and Matter
11	B	004	Earth / Space Systems and Cycles
12	J	001	Scientific Investigation, Reasoning, and Logic
13	C	002	Force, Motion, Energy, and Matter
14	G	001	Scientific Investigation, Reasoning, and Logic
15	C	004	Earth / Space Systems and Cycles
16	F	004	Earth / Space Systems and Cycles
17	D	003	Life Processes and Living Systems
18	H	004	Earth / Space Systems and Cycles
19	C	004	Earth / Space Systems and Cycles
20	F	002	Force, Motion, Energy, and Matter
21	D	001	Scientific Investigation, Reasoning, and Logic
22	F	002	Force, Motion, Energy, and Matter
23	C	003	Life Processes and Living Systems
24	G	001	Scientific Investigation, Reasoning, and Logic
25	C	001	Scientific Investigation, Reasoning, and Logic
26	G	003	Life Processes and Living Systems
27	D	002	Force, Motion, Energy, and Matter
28	F	003	Life Processes and Living Systems
29	C	003	Life Processes and Living Systems
30	G	004	Earth / Space Systems and Cycles
31	A	003	Life Processes and Living Systems
32	G	003	Life Processes and Living Systems
33	B	004	Earth / Space Systems and Cycles
34	F	003	Life Processes and Living Systems
35	A	003	Life Processes and Living Systems
36	J	001	Scientific Investigation, Reasoning, and Logic
37	A	003	Life Processes and Living Systems
38	J	002	Force, Motion, Energy, and Matter
39	B	001	Scientific Investigation, Reasoning, and Logic
40	J	002	Force, Motion, Energy, and Matter

Grade 3 Science, Core 1

If you get this many items correct:	Then your converted scale score is:
0	000
1	109
2	153
3	180
4	200
5	216
6	230
7	242
8	253
9	263
10	272
11	281
12	289
13	297
14	305
15	312
16	320
17	327
18	334
19	341
20	348
21	355
22	362
23	369
24	376
25	384
26	391
27	399
28	407
29	416
30	424
31	434
32	444
33	456
34	468
35	483
36	500
37	520
38	549
39	594
40	600