

Take Home Packet Grade 6 Science



Name _____

Class _____

Dear Parents: This year grade 6 will be working on take home packets that is aligned with the common core standards to enhance and reinforce strategies. Packets are due back on the day Children's Aid College Prep reopens for in class instruction.

Response	Scholar clearly answered all parts of the question in complete sentences. Scholar has a strong claim and relevant reasons/ evidence to support the response	Scholar answered all parts if the question in complete sentences. Scholar has a claim and some reasons/ evidence to support the response.	Scholar answered some parts of the question, but left other parts incomplete. Scholar has a claim and no relevant reasons/ evidence to support the response.	Scholar attempted to answer part of the question, but the answer is unclear to the reader and no claim and reasons/ evidence.
Cite	Scholar cited evidence for all parts of their response directly from the text. It is clear to the reader to which part of the text the scholar is referring.	Scholar cited evidence for some parts of the answer directly from the text. Some parts if the answer does not have evidence.	Scholar may have cited evidence for part of their answer. Most parts of the answer do not have evidence from the text.	Scholar did not cite evidence from the text in any part of their answer.
Elaboration	Scholar explained all parts of their answer in clear terms to the reader. Scholar expanded their ideas beyond simply answering the written response question.	Scholar explained most parts of the answer in clear terms. Some parts of the answer are left unexplained. Scholar may not have expanded on his/her idea.	Scholar explained some parts of their answer, but most of the answer does not have an explanation as to why the writer believes that is the answer	Scholar did not explain or expand upon their answer.

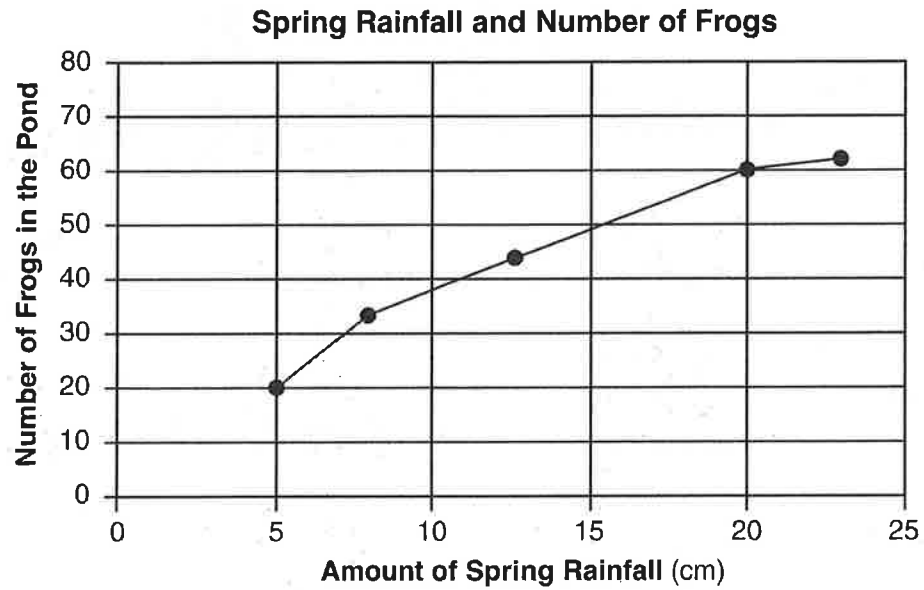
Score: 128

6th grade take home work

Name: _____

Date: _____

1. The graph below represents the relationship between the amount of spring rainfall recorded at a pond and the number of frogs in that pond. The data were collected over five spring seasons.



What is the difference between the number of frogs in the pond when the rainfall was 5 cm and when the rainfall was 20 cm?

- A. 20 B. 40 C. 50 D. 60

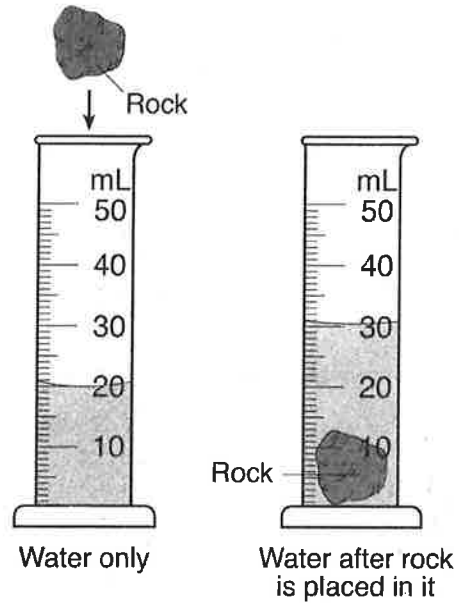
3. The force of an object, with a certain mass accelerating at a certain rate, can be determined by using the equation below.

$$\text{force} = \text{mass} \times \text{acceleration}$$

Which object would have the greatest force?

- A. a 5-kg object accelerating at 10 m/s^2
- B. a 5-kg object accelerating at 20 m/s^2
- C. a 20-kg object accelerating at 4 m/s^2
- D. a 20-kg object accelerating at 3 m/s^2

4. The diagram below represents a rock that was placed in a graduated cylinder containing 20 mL of water, causing the water level to rise.



Which physical property of the rock is being measured using the graduated cylinder?

- A. volume
 - B. solubility
 - C. mass
 - D. hardness
5. As water is heated, the motion of the water molecules will generally
- A. decrease
 - B. increase
 - C. remain the same

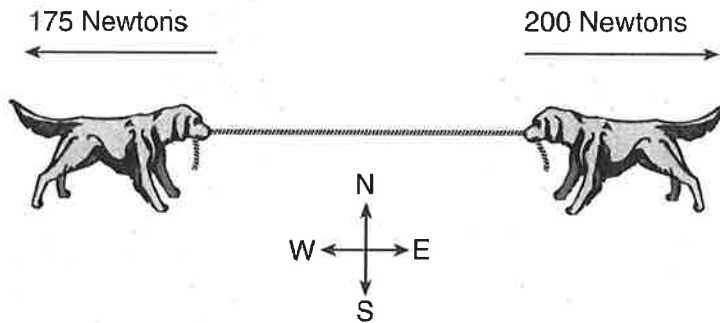
10. Which terms best describe the properties of a gas?

- A. definite volume and a definite shape
- B. definite volume and no definite shape
- C. no definite volume and a definite shape
- D. no definite volume and no definite shape

11. Which event is an example of a physical change?

- A. iron rusting
- B. fireworks exploding
- C. eggs cooking
- D. ice melting

12. The diagram below shows two dogs pulling on a rope with constant but unequal forces.



In which compass direction will both dogs most likely move?

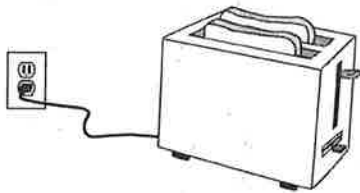
- A. east
- B. west
- C. north
- D. south

13. The tiny particles that make up all matter are called

- A. genes
- B. atoms
- C. minerals
- D. cells

15. A television set changes electrical energy to sound and light energy. In this process, some energy is
- A. created B. destroyed
 C. changed to matter D. changed to heat

16. The diagram below shows a toaster.

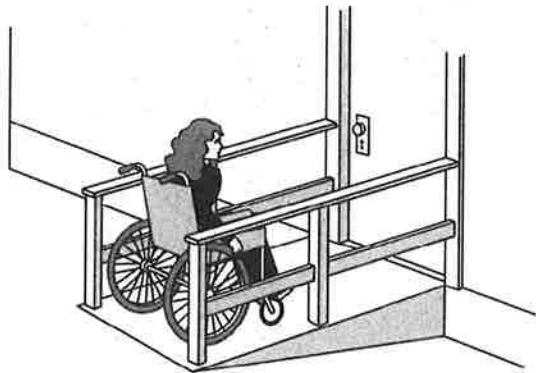


In order to toast a slice of bread, the toaster changes electrical energy into which other type of energy?

- A. magnetic B. chemical
 C. mechanical D. heat
17. Which property of an object determines how well it conducts electricity?
- A. the color of the object
 B. the mass of the object
 C. how fast the object sinks in water
 D. the material that the object is made of

18. Solar panels are used to absorb sunlight. Which color panel would absorb the most sunlight?
- A. black B. green
 C. white D. yellow

19. Base your answers to the questions on the diagram below and on your knowledge of science. The diagram shows a person in a wheelchair, using a ramp to enter a building.



The ramp in the diagram is an example of which simple machine?

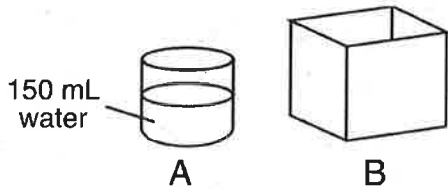
- A. pulley B. lever
 C. inclined plane D. balance
20. If an object is attracted to a magnet, the object is most likely made of
- A. wood B. plastic
 C. cardboard D. metal

25. Which instrument should a student use to measure exactly 10 milliliters (mL) of water?

- A. graduated cylinder
- B. pan balance
- C. ruler
- D. thermometer

26. Base your answers to the questions on the diagram below and on your knowledge of science.

The diagram shows two containers, A and B. Container A contains 150 milliliters of water. Container B is empty.



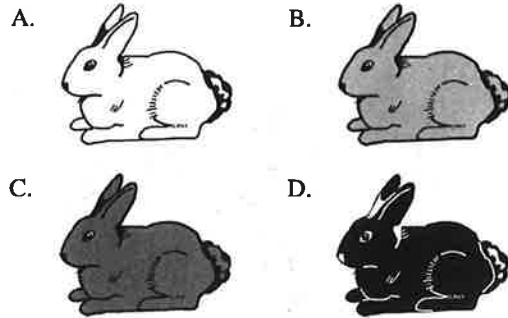
If all the water from container A is poured into container B, which property of the water will change?

- A. mass
- B. color
- C. shape
- D. state

27. Which object is a *nonliving* thing that is made by humans?

- A. a fish
- B. a rock
- C. a green plant
- D. a metal container

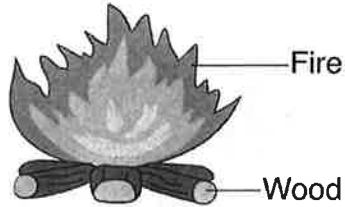
28. The diagrams below show four rabbits. Which rabbit would have the best chance of survival in a snowy environment?



29. In order to grow and thrive, all animals need water, air, and

- A. food
- B. sunlight
- C. soil
- D. offspring

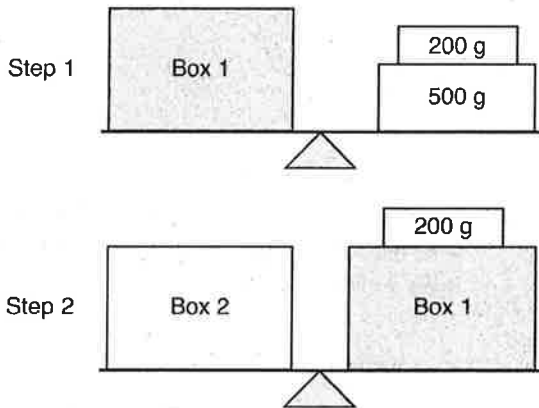
35. The diagram below shows a wood fire burning.



Which form of energy does the wood contain so that the fire will burn?

- A. chemical
- B. electrical
- C. mechanical
- D. sound

36. The diagrams below show how a student found the masses of Box 1 and Box 2 in two steps. The student used a balance, one 200-g mass, and one 500-g mass.



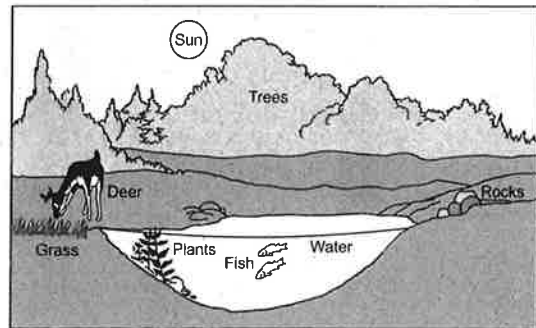
What is the mass of Box 2?

- A. 200 g
- B. 500 g
- C. 700 g
- D. 900 g

37. Which process causes a wet towel to become dry?

- A. condensation
- B. evaporation
- C. precipitation
- D. deposition

38. The diagram below shows a pond near a forest.



(Not drawn to scale)

Which two objects labeled in the diagram are *nonliving*?

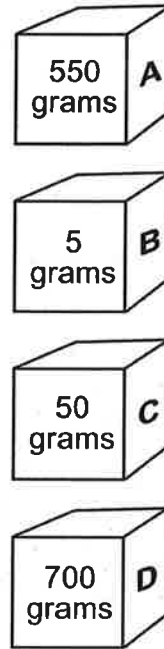
- A. fish and plants
- B. grass and deer
- C. rocks and water
- D. trees and Sun

42. Ice is solid water that has
- A. a definite shape and a definite volume
 - B. a definite shape, but no definite volume
 - C. no definite shape and no definite volume
 - D. no definite shape, but a definite volume

43. Which color of shirt would absorb the most sunlight?
- A. white
 - B. yellow
 - C. pink
 - D. black

44. Which statement best describes how energy can be harmful?
- A. A fire burns down a house.
 - B. Electricity heats an oven.
 - C. A lamp lights a house.
 - D. An alarm clock wakes up a sleeping person.

45. The diagram below shows four boxes labeled A, B, C, and D. The mass of each box is shown.



Which box is *under* the box with a mass of 50 grams?

- A. box A B. box B C. box C D. box D
46. It is harder to push a box up a ramp with a rough surface than up one with a smooth surface because the rough surface provides more
- A. motion
 - B. friction
 - C. gravity
 - D. magnetism

Directions: Read the following two article and answer the following questions.

Ecosystems Are Excellent

What is an Ecosystem?

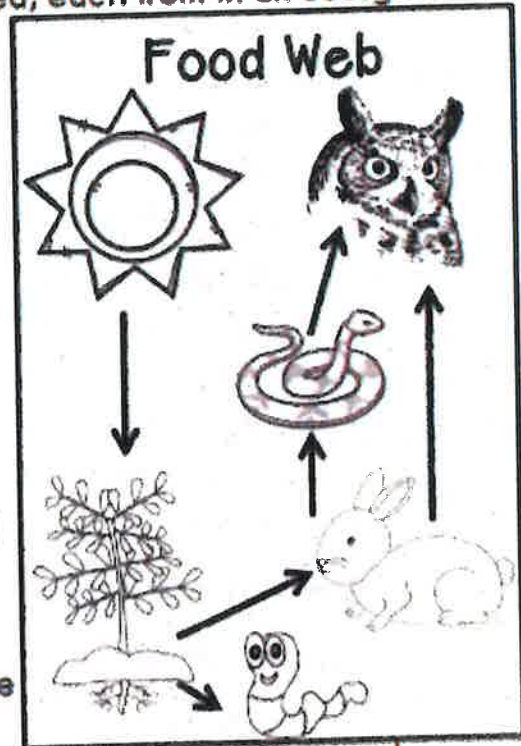
An ecosystem is made up of living and nonliving things that interact. Living things in an ecosystem can include plants, animals, and people. Nonliving things include air, soil, and water. Plants or animals could not survive by themselves. They need items in an ecosystem to help them survive. Ecosystems can be many different sizes. A small ecosystem can be under a rock or in a tiny pool of water. While a large ecosystem, can be a desert or forest. Changes can occur, or happen, in an ecosystem due to nature or the actions of humans.

What are the Different Roles in an Ecosystem?

In order for ecosystems to be balanced, each item in an ecosystem has a role or job. A producer is a living thing that uses the sun, air, and soil to produce, or make, its own food. Grass, pine trees, and flowers are examples of producers. Consumers also play a role in ecosystems. Consumers are living things that are not able to make their own food. Animals that eat plants or other animals are consumers. There are three types of consumers. They are **carnivores**, **herbivores**, and **omnivores**. Decomposers have a role in ecosystems as well. A decomposer is a living thing that eats dead plants or animals and breaks down waste.

What is a Food Web?

In ecosystems, energy flows from one thing to another. A food web shows how energy in an ecosystem passes between producers, consumers, and decomposers. A food web also shows how things in an ecosystem rely on each other to survive. Arrows on a food web show which item provides energy to another. In the food web pictured, energy is passed from the sun, to the plant, to the rabbit, to the owl.



Glossary

carnivores - an animal that only eats other animals
herbivores - an animal that only eats plants
omnivores - an animal that eats plants and other animals

Directions: Use the information in the two passages "Ecosystems Are Excellent" and "Forest Lake Gazette" to answer the following questions.

1. Using the information from "Ecosystems Are Excellent" which of the following choices is NOT a role in ecosystems that is mentioned in the passage?

- a. producer
- b. consumer
- c. pollution
- d. decomposer

2. Which of the following choices BEST describes the main idea of the "Forest Lake Gazette"?

- a. The town of Forest Lake will have a clean up day to remove pollution from their ecosystem, which is the ecosystem Mrs. Lane's class studied about.
- b. An ecosystem is made up of living and nonliving things that interact.
- c. The weather will be sunny on Saturday, but it will rain on Sunday.
- d. The mayor wants the citizens to clean up the pollution he has seen in town.

3. What text feature in "Ecosystems Are Excellent" can help readers find the meaning of unknown words?

- a. title
- b. headings
- c. diagram
- d. glossary

4. Which of the following choices is NOT information that can be found in both passages?

- a. An ecosystem is made of living and nonliving things that interact.
- b. A food web shows how things in an ecosystem rely on each other.
- c. Consumers are not able to make their own food.
- d. Producers are living things that are able to make their own food.

5. According to the diagram in the passage "Ecosystems Are Excellent" what is something that provides energy to the owl?

- a. snake
- b. tree
- c. sun
- d. worm

