



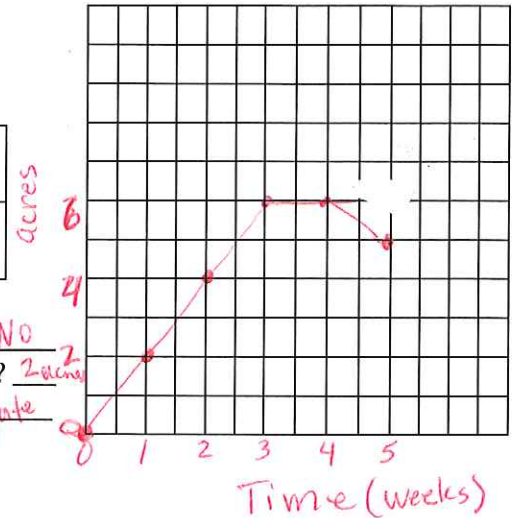
KEY
* Answers may vary

I. Organisms & Their Environment

1. Canada Geese seem to have made a home on the fields behind Rock Hill Elementary School. They are polluting the field with their droppings.

Make a graph of the amount of land (acres) the geese have overtaken. Be sure to label your graph.

Time (weeks)	0 weeks	1 week	2 weeks	3 weeks	4 weeks	5 weeks
Area (Acre)	0 acres	2 acres	4 acres	6 acres	6 acres	5 acres



- a. Did the geese continue to take over for the entire 6 weeks? NO
- b. How many more acres were affected from week 1 to week 2? 2 acres
- c. What might have happened by week 5? *some began to migrate

2. Wild boars, also known as wild pigs, are omnivorous animals that eat nuts, acorns, carrion, roots, small birds, small mammals, eggs, grass, fruit, and mushrooms. Often they push down small trees and shrubs in order to eat the roots. It is easy to tell when boars have been to an area. Look at the photo.

a. List other living things affected by the boar's feeding habits.

* family pets, people, earthworms, grass, moles, shrubs,

b. What could happen if this homeowner does not plant new grass in his yard?

Erosion, since the roots have been eaten and the soil disturbed.



3. Wild boars are also known to attack humans. Use the graph to determine how many.

a. In what year were the most boar attacks reported? 2009

b. What trend with numbers of attacks occurred from 2005 to 2009? increased

c. What trend occurred from 2009 to 2010? decrease

d. How many attacks occurred in: 2005 6 2007 11 2011 12

e. How many more attacks occurred in 2012 than 2011? 1 more attack

Graph: Annual Number of Wild Pig Attacks on Humans in Developed (Suburban & Urban) Areas
Source: University of Nebraska - Lincoln | © The Falcon Post



KEY - continued

II. Weather & Astronomy

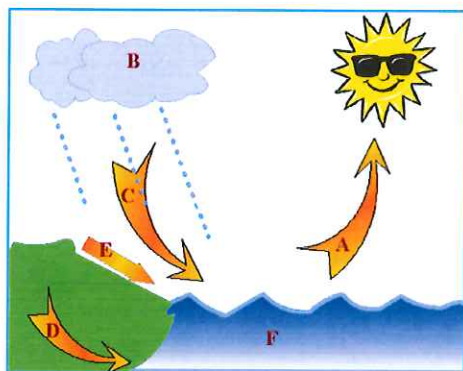


a. The picture shows Earth's rotation, which is when Earth spins on its axis. It takes 24 hours for it to happen once, which is the length of a day.



b. The picture shows Earth's revolution, which is when Earth moves around the sun. It takes 365 1/4 days each time it happens, which is the equal to a year.

c. The reason we experience different seasons is due to both the tilt of the Earth and it's revolution around the sun.



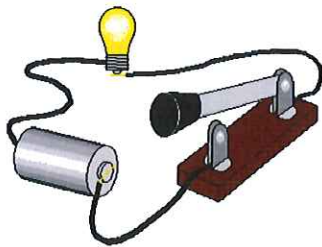
d. How would you label the picture?

- A. Evaporation
- B. Condensation
- C. Precipitation
- D. Groundwater
- E. Runoff
- F. Collection

e. In your own words, explain what is shown in the picture. ✖

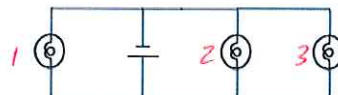
The Water Cycle. Water falls from clouds and soaks into the soil or runs off to make bodies of water. The Sun warms it causing it to evaporate from liquid to gas. When it is cooled, it will condense making new clouds.

III. Electricity, Magnetism & Light



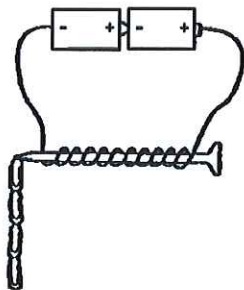
a. In the space here, explain what is wrong with the circuit shown in the picture.

The switch is open so the electrons cannot flow. The bulb should not be lit.



b. Imagine the bulbs are numbered 1, 2, 3, from left to right. Why is it possible for bulb 2 to be removed while bulbs 1 and 3 remain lit?

Electricity follows the pathway of least resistance. With this parallel circuit, they have alternative pathways.



c. Study the picture, read, then fill in the blanks.

The picture shows an electromagnet with 2 batteries and 11 coils attracting 4 paperclips. If one battery is removed, it will most likely attract 2 paperclips. If another battery is added, it will likely attract 6 paperclips. Another way to make this system attract more paperclips would be to add more coils.

d. The picture shows a shadow finger puppet.

Using what you know about light, explain why these shadows are possible.

Fingers/hands are opaque, so they make a shadow b/c light cannot pass through

