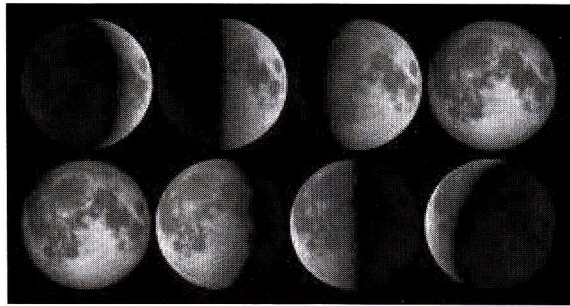


1.

I Read the text and the questions on the opposite page. For each question, choose/circle the correct answer *a*, *b* or *c*.

### Moon Mystery



What are the phases of the moon?

1. On a clear night, go outside and look for the moon. Do the same thing again a week later, and the moon you see will look different. It is the same, familiar rocky sphere that has been circling Earth for millions of years, so why does it always seem to change shape?
2. Sometimes, the moon is a bright disk that illuminates, or lights up, the night sky. Other times, it is just a sliver of white. Sometimes, the moon can be seen during the day. Other times, it is not visible at all. These different amounts of visibility are called the phases of the moon. They occur because the sun, the moon, and Earth are always moving.
3. One thing that almost never changes, however, is that the sun illuminates one side of the moon. Because we live on the surface of Earth, the moon's appearance changes depending on how much of that illumination we can see. For example, a full moon occurs when the moon and the sun are on opposite sides of Earth and we are able to look directly at the lighted side of the moon.
4. A new, or dark, moon occurs when the moon and the sun are on the same side of Earth. In this case, we are looking directly at the unlit side of the moon that is facing away from the sun and is in shadow. The other phases occur as the moon orbits Earth and we see more or less of the illuminated half. A half-moon is when the moon is to the side of Earth, and you can see equal amounts of the lit and unlit halves.
5. A lunar eclipse is the only time the sun's light is prevented from reaching the moon. This occurs when the sun, the moon, and the Earth are in a straight line with Earth in the middle. As the moon travels into the darkness of Earth's shadow, it seems as though all or part of it disappears.
6. A solar eclipse is slightly different. It occurs when the sun, the moon, and Earth are lined up but the moon is in the middle. Although the sun is many times larger than the moon, it is also much, much farther away. This makes the sun and the moon appear to be the same size. When the moon's path goes in front of the sun, it temporarily blocks the sun and causes a solar eclipse. A solar eclipse is much rarer than a lunar eclipse.
7. Although there is still some debate, many scientists believe that the moon was once part of Earth. Millions of years ago, something crashed into Earth and broke off a large section of the planet. Gravity kept this huge chunk from floating away into space, and it became our moon. One strong piece of evidence that supports this theory is that the moon is made of the same materials as Earth.

(text taken from *Spectrum Reading Grade 5*, Frank Schaffer Publications)

1. According to the first paragraph:
  - a) the moon changes every week.
  - b) the shape of the moon changes every week.
  - c) the way we see the moon changes every week.
  
2. According to the second paragraph:
  - a) there are days when we cannot see the moon at all.
  - b) we can always see the moon, either as a bright disk or as a sliver of white.
  - c) the moon is never visible in the daytime.
  
3. The sun
  - a) always illuminates one part of the moon.
  - b) influences how we see the moon.
  - c) and the Earth are on opposite sides of the moon when the moon is full.
  
4. When the moon and the sun are on the same side of the Earth
  - a) we see a full moon.
  - b) the moon is in shadow.
  - c) we see a half-moon.
  
5. A lunar eclipse happens when
  - a) the moon is in the middle, between the Earth and the sun.
  - b) the Earth is in the middle, between the sun and the moon.
  - c) the sun is in the middle, between the Earth and the moon.
  
6. A solar eclipse
  - a) happens as often as a lunar eclipse.
  - b) happens when the sun and the moon cross their paths.
  - c) is caused by the moon passing in front of the sun.
  
7. The text
  - a) explains why the way we see the moon changes over time.
  - b) tells us that the phases of the moon are caused by gravity.
  - c) proves that the moon was once part of the Earth.

points: \_\_\_\_ / 3.5

II Match the words from the text *a-f* (on the left) to the definitions *1-4* (on the right). There are **two extra words** you don't have definitions for. Write the letter of the appropriate word on the line next to the definition:

a) chunk	1. for a limited time only _____
b) temporarily	2. a part of something, especially a large part _____
c) appearance	3. light _____
d) illumination	4. easy to recognize because you've seen it before _____
e) visibility	
f) familiar	

points: \_\_\_\_ / 1

III Now read the text again and find the answers to these questions:

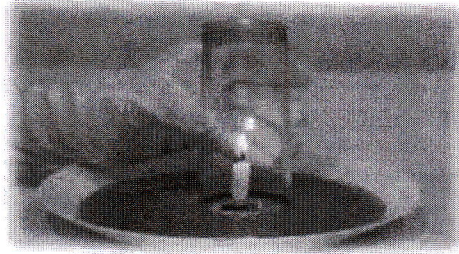
1. Which word in paragraph three means 'the top part or layer of something'? \_\_\_\_\_
2. Which word in paragraph five means 'stopped from happening'? \_\_\_\_\_
3. Which word in paragraph six means 'a route or track between one place and another'? \_\_\_\_\_
4. Which word in paragraph seven means 'proof'? \_\_\_\_\_

points: \_\_\_\_ / 1

Total points: \_\_\_\_ / 5.5

## 2.

Read the text and fill in the blanks 1-6 with the correct expressions a-f. You can use each expression only once.



You were asked to do an experiment with a candle. Your teacher asked you to place the candle in the middle of the pie tin and light it, and then to set the glass over the candle and see what happens.

### What's this all about? (changing air pressure)

One way to change air pressure is to change the number of air molecules in a closed space. More molecules means higher pressure, and fewer molecules means lower pressure. Another way to

(1) \_\_\_\_\_ the molecules. Heated molecules move faster and bump into things harder. Cooler molecules (2) \_\_\_\_\_.

Heating air up tends to increase air pressure; cooling it down tends to decrease air pressure.

When you (3) \_\_\_\_\_ the burning candle, two things happen. First, the candle heats the air in the glass, which increases the air pressure by speeding up the molecules and reduces the air pressure inside the glass.

These two things (4) \_\_\_\_\_ out, so nothing happens as long as the candle is burning. When the candle goes out, no heat will be left to

(5) \_\_\_\_\_ the glass. You will be left with low pressure inside because the flame (6) \_\_\_\_\_ the oxygen molecules.

(adapted from *Summer Bridge Activities Fifth to Sixth Grade*, Rainbow Bridge Publishing)

- a) cancel each other
- b) move more slowly
- c) has used up
- d) set the glass over
- e) increase the air pressure in
- f) change air pressure is to heat

points: \_\_\_\_ / 1.5