Warm-Up

Name _____

## 1 Wait Until 2061

A visitor is returning. We haven't seen this one in ages. In 2061, Halley's Comet will streak past Earth. It is named for Edmund Halley. He deduced that comets seen in 1531, 1607, and 1682 were all one in the same. He predicted its appearance in 1758. But he did not live to see it. The most ancient record of Halley's Comet comes from 1057 BCE. A Chinese book mentions it. Astronomers have noted each appearance since 239 BCE.

A comet begins as a small, icy mass far beyond Pluto in a region called the Oort Cloud. There, billions of chunks of ice water, ice ammonia, ice methane, and dust circle the solar system. Pluto's or Neptune's gravity causes the comet to start falling toward the sun. A trail of solar particles creates a visible tail of glowing gases. The tail can stretch for thirty-five million miles! The comet goes around the sun. Then it slingshots away and races once more toward the outer solar system. Most comets never return to the solar system. However, a few are short-period comets. They return at regular intervals. Halley's Comet appears every seventy-six years. Comet Encke goes by every 3.3 years.

### Check Your Understanding

1. From the context of the passage, what is the meaning of a short-period comet?
   a. It returns at regular intervals.
   b. It is never seen but once.
   c. It is made of solar particles.
   d. It lasts less than a year.

2. Where do comets form?
   a. near the sun
   b. near Jupiter
   c. in the Oort Cloud region
   d. near Earth

3. Which of the following is a topic sentence?
   a. Then it slingshots away and races once more toward the outer solar system.
   b. A comet begins as a small, icy mass far beyond Pluto in a region called the Oort Cloud.
   c. The most ancient record of Halley's Comet comes from 1057 BCE.
   d. Comet Encke goes by every 3.3 years.

4. Which event occurred after Halley's death and was seen as proof that the comet returned every seventy-six years?
   a. The appearance in 1984.
   b. The appearance in 2061.
   c. The appearance in 1057 BCE.
   d. The return of the comet in 1758.

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