

Explore — Analysis Questions

Observe the completed drawings from page 1 while answering Questions I–VI and then answer Questions #1–4 in the **Explain** section that follows. *Hint:* Reread the *Introduction*.

- I. What did you have to do to complete Procedure #5 on page 1? Be specific.

- II. Which answer—*a*, *b*, *c*, or *d*—in the ENGAGE section is most closely related to the way you completed Procedure #5? Explain.

- III. What do the pipe cleaners represent?

- IV. What do the circles of chalk represent?

- V. Assuming the pipe cleaners and circles represent the aforementioned structures, what would happen in “real life” *after* the circle with the pipe cleaners on the left but *before* the circle on the right would contain pipe cleaners?

- VI. What is the process you are trying to understand in this activity? Why is this process important to living organisms?

Explain

Use a textbook and/or the Internet to answer Questions #1–4.

1. Write the name of each of the steps or phases of mitosis.

2. After the name of each phase, write *one or two* major events that occur in that phase.

3. Write the name of the phase that is not part of mitosis but is a critical part of the cell cycle.

4. What important event, essential to the process of mitosis, occurs in the phase listed in #3?