

# 10.1 Cell Growth, Division, and Reproduction

## Limits to Cell Size

For Questions 1–4, write True if the statement is true. If the statement is false, change the underlined word or words to make the statement true.

- \_\_\_\_\_ 1. As a cell's size increases, its amount of DNA also increases.
- \_\_\_\_\_ 2. The amount of activity in a cell is related to its volume.
- \_\_\_\_\_ 3. The smaller the cell, the smaller its ratio of surface area to volume.
- \_\_\_\_\_ 4. The information crisis in a cell is solved by the replication of the DNA before cell division.

5. **VISUAL ANALOGY** In the visual analogy of the growing town, what does the library represent? Identify two characteristics that make it a good choice for this analogy.

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## Cell Division and Reproduction

For Questions 6–8, complete each statement by writing the correct word or words.

6. \_\_\_\_\_ is the formation of new individuals.
7. For single-celled organisms, cell division is a form of \_\_\_\_\_ reproduction.
8. Most multicellular organisms reproduce by \_\_\_\_\_ reproduction.
9. Use the table to compare and contrast asexual and sexual reproduction.

Asexual and Sexual Reproduction	
Similarities	Differences

### Apply the Big idea

10. Vascular tissue helps plants transport water against the force of gravity. Because of this, plants that lack vascular tissue do not grow very tall. How is this situation similar to the information you have learned in this lesson? Explain.

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