



Name: _____ Date: _____ Group: _____

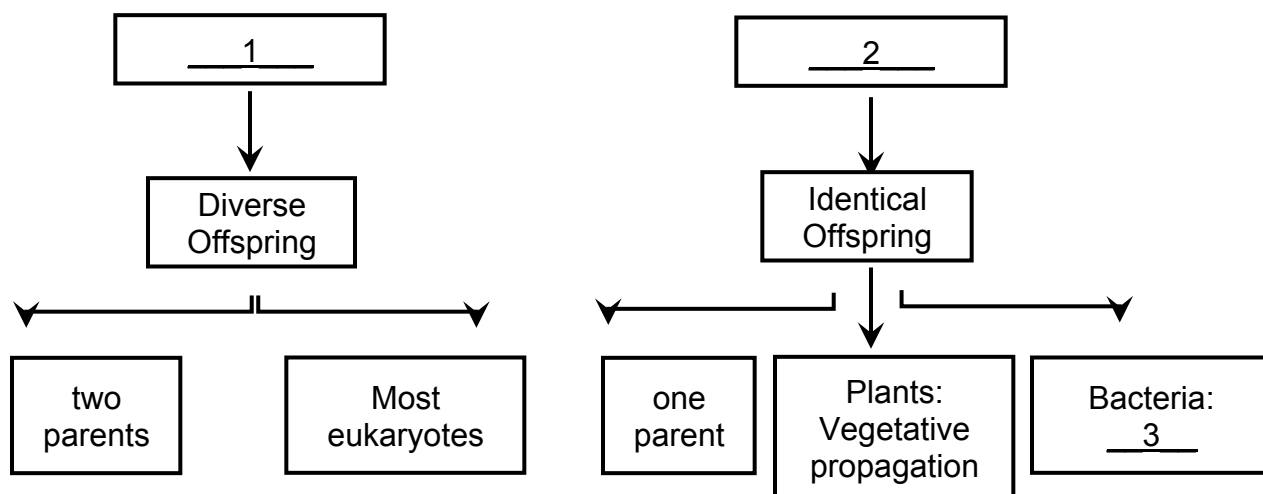
Like Father, Like Mother

- 1 Landon glances across the dinner table and thinks to himself that his father's curly hair looks just like his own. He wishes his hair were straight like his mother's because he thinks he looks better with straight hair. Landon works hard to keep it straighter by combing and using hair gel, but it usually curls right back up. He has his mother's nose, but not her hair, unlike his sister Emily, who is also the result of the combination of the DNA from both of his parents and has straight hair like their mother's. Most eukaryotic organisms, like Landon, are formed through the process of sexual reproduction. Landon realizes that he and Emily are evidence that sexual reproduction, the combination of their two parents, creates diverse offspring.
- 2 Landon's dinner plate is filled with one of his favorite foods—mashed potatoes made from potatoes fresh from his grandmother's garden. He remembers helping her get ready to plant the potatoes in early spring. They cut each potato into several pieces and planted the pieces in a nice straight row in the garden. When these eukaryotic plants came up, he noticed that each plant looked like all the others. These identical offspring with uniform traits are the result of asexual reproduction. Landon's grandmother grew potatoes by cutting the whole potato into smaller pieces, which is a type of asexual reproduction called vegetative propagation.
- 3 After dinner, Landon wanted to go watch television, but his mother insisted that he put the leftover food in the refrigerator. Perhaps she knew that the cool temperature inside the refrigerator would stop the growth of bacteria, which are prokaryotic and can reproduce asexually in as little as 20 minutes. This rapid asexual reproduction, called binary fission, would produce thousands and thousands of identical bacterial cells that could cause Landon's tasty leftover food to spoil before the end of his favorite show.
- 4 Landon finishes up the dishes and puts away the leftovers. As he sets the last dinner glass back into the cupboard, he catches a glimpse of his curly hair in his reflection. He thinks to himself that his mother's nose and his father's hair are actually a good combination that looks pretty good on him.





- 1 Which of these statements best describes Landon and Emily?
- A Both are the product of asexual reproduction.
 - B Emily is a prokaryote, and Landon is a eukaryote.
 - C Landon and Emily are identical.
 - D Landon and Emily are eukaryotic products of sexual reproduction.
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- 2 Which of these explains why Landon has his father's curly hair and his mother's nose?
- A He is prokaryotic.
 - B He is the product of sexual reproduction.
 - C His father is older than his mother.
 - D He was formed by binary fission.
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- 3 Based on the context, vegetative means _____.
- A sexual reproduction
 - B binary fission
 - C growing
 - D organisms



4 Examine the graphic organizer shown. Which phrase is the best label for box 2?

- A Sexual Reproduction
- B Asexual Reproduction
- C Binary Fission
- D Prokaryotic Cells



- 5 What is the best summary of this passage?
- A Organisms reproduce through sexual or asexual reproduction.
 - B Rapid sexual reproduction is binary fission.
 - C All eukaryotic plants look the same.
 - D All things begin through asexual reproduction.