DATE: NAME: CLASS:

CHAPTER 16 HANDOUT	Comparing Life Cycles Exercise	BLM 16.4.7

Answer the questions below in the spaces provided.

Questions

1. Explain how asexual reproduction and sexual reproduction differ.

2. Describe the processes of binary fission and conjugation.

3. A biologist has recently discovered a small population of whiptail lizards (*Cnemidophorus neomexicanus*), which reproduces via parthenogenesis. This population contains mostly females. Define parthenogenesis and provide one reason why this form of reproduction may provide an advantage over sexual reproduction for this small population.

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4. Explain what is meant by the term "alternation of generations?" How does this differ from "alternation in sexual cycles?"

5. List two advantages of asexual reproduction and two advantages of sexual reproduction.

6. Draw a diagram that illustrates the alternation of gametophyte and sporophyte generations in a fern plant.

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7. Circle the correct answer.

a) Binary fission results in genetically distinct organisms. True or False

b) Vegetative reproduction and fragmentation are both examples of asexual reproduction in plants. True or False

c) Parthenogenesis results in the development of an adult from an unfertilized egg. True or False

d) Spores are always diploid and are the product of mitosis. True or False

e) Conjugation is a form of sexual reproduction. True or False

f) The diploid generation of a plant is called a gametophyte. True or False

g) The life cycles of all plants include a sporophyte and a gametophyte generation. True or False

h) Moss reproduces asexually by budding. True or False

i) Some animals reproduce both sexually and asexually, exhibiting alternation in sexual cycles. True or False