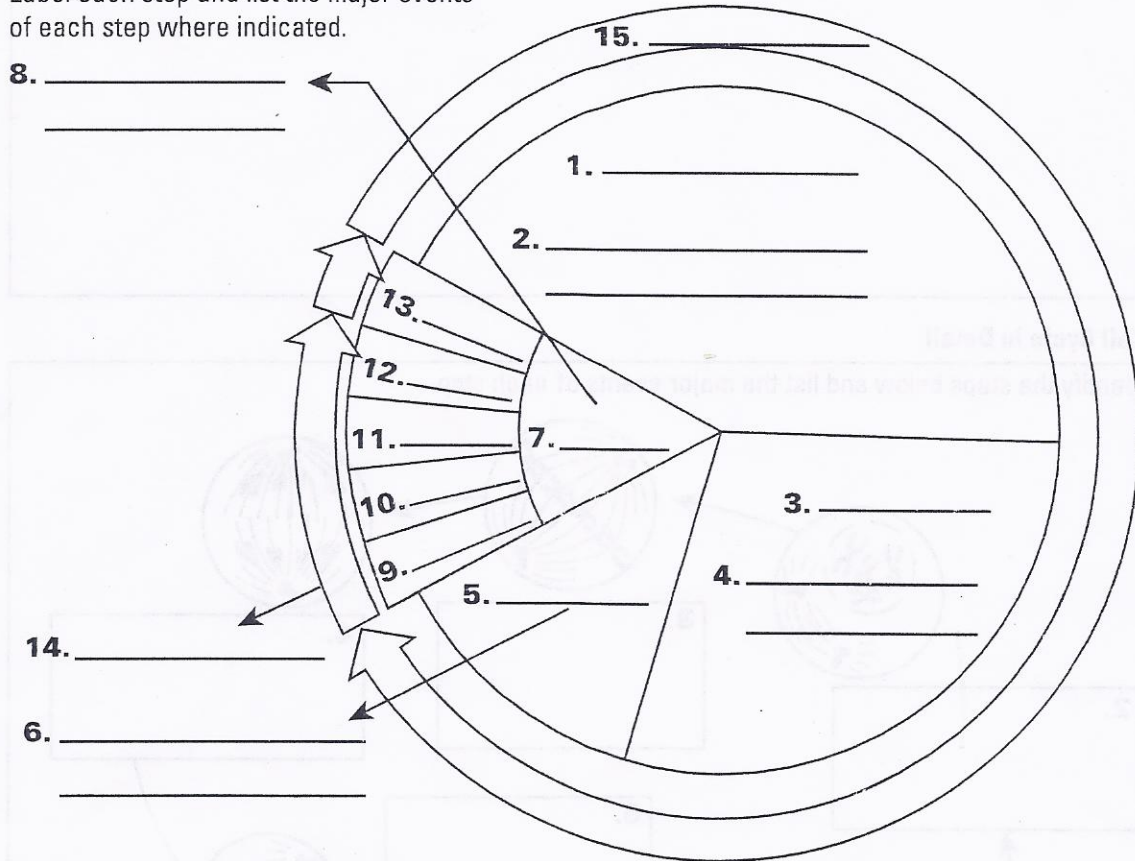


SECTION
5.1

THE CELL CYCLE
Power Notes

Cell Cycle

Label each step and list the major events of each step where indicated.



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Cells divide at different rates.

Cell size is limited.

- _____
- _____
- _____

Circle the cube with the greatest surface area-to-volume ratio.

CHAPTER 5
Cell Growth and Division

SECTION
5.2

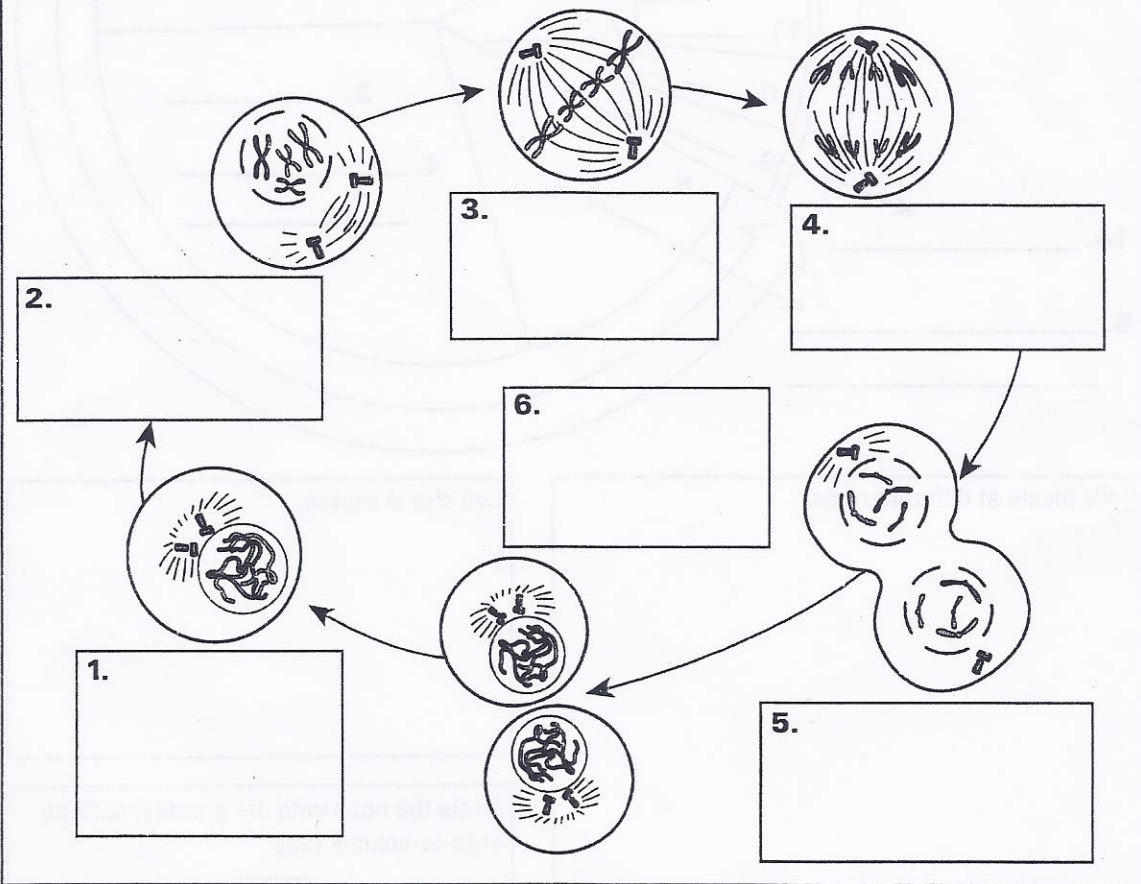
MITOSIS AND CYTOKINESIS
Power Notes

Chromosome structure:

-
-
-
-

Cell Cycle in Detail

Identify the steps below and list the major events of each step.



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CHAPTER 5
Cell Growth and Division

SECTION 5.3

REGULATION OF THE CELL CYCLE
Power Notes

Internal factors:

External factors:

Cell Cycle

Carcinogens:
• Examples:

Cancer cells

may form

may be killed by

Tumors

Apoptosis

Malignant

Benign

Examples of apoptosis in healthy organisms:
•
•

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CHAPTER 5
Cell Growth and Division

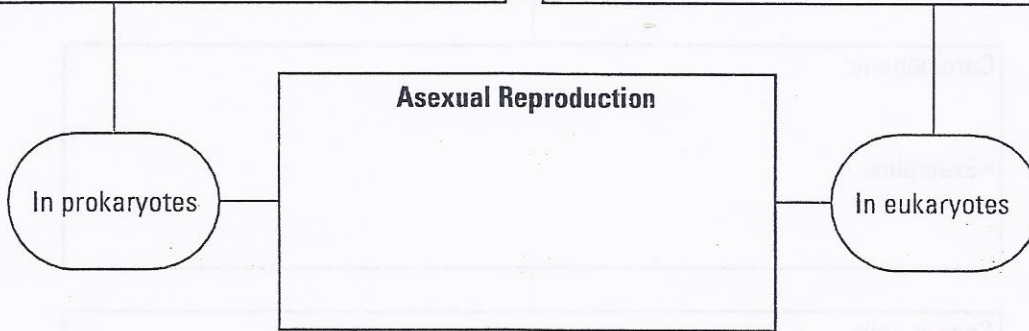
SECTION
5.4

ASEXUAL REPRODUCTION
Power Notes

Binary fission:

Mitosis:

- 1.
- 2.
- 3.

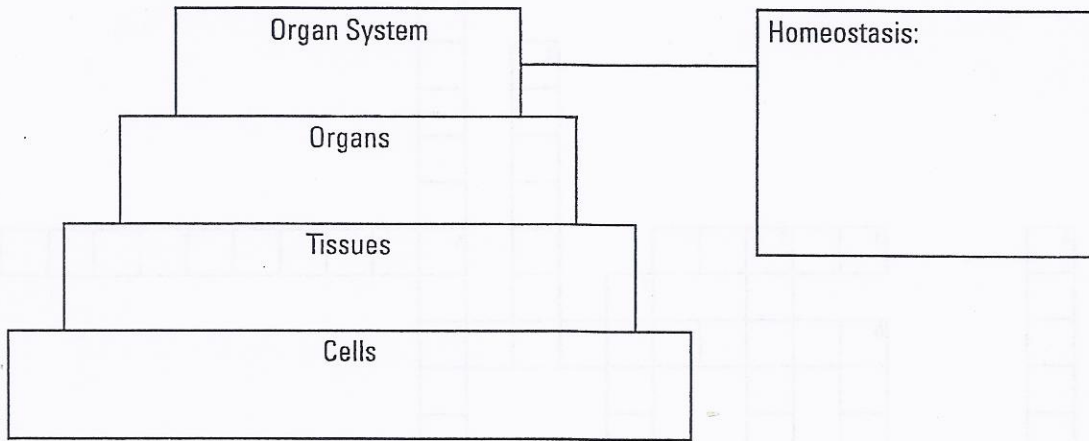


Advantages to species:

Disadvantages to species:

SECTION 5.5

MULTICELLULAR LIFE
Power Notes



Defining characteristics:

- 1.
- 2.
- 3.

Potential:

- 1.
- 2.
- 3.

Stem Cells

Possible uses:

Origin:

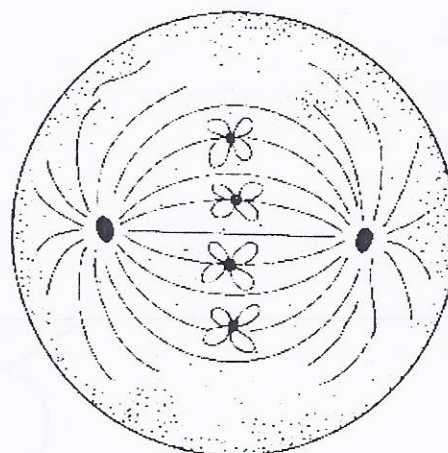
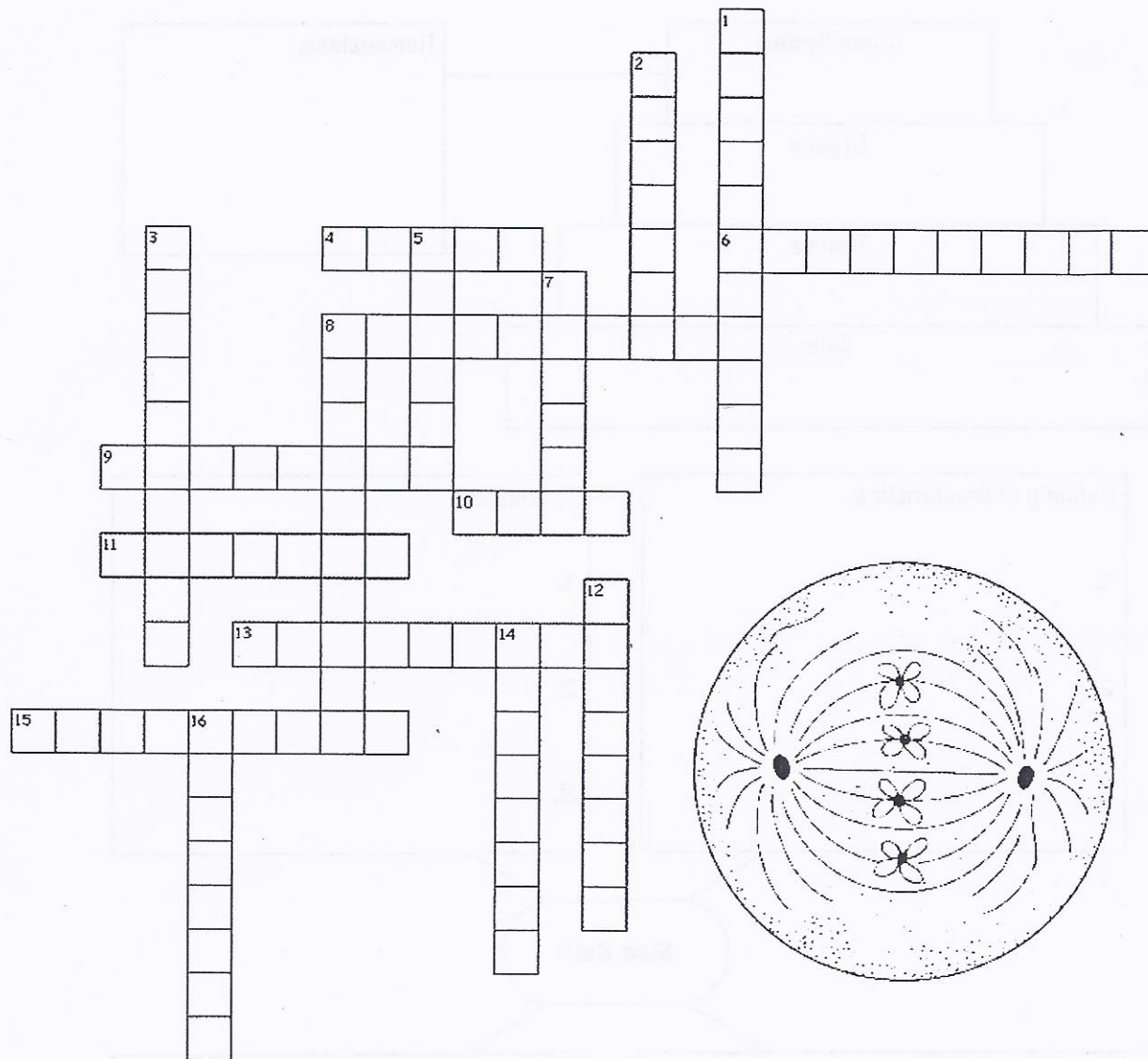
- 1.
- 2.

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CHAPTER 5
Cell Growth and Division

Name: _____

Cell Division



Down

- 1. Division of the cytoplasm
- 2. Structure made of fibers that help to move chromosomes during mitosis
- 3. A chromosome consists of two identical _____
- 5. Disease caused by uncontrolled cell growth
- 7. Cells are limited in size by their surface areas and _____
- 8. Paired structure that helps to organize the spindle
- 12. Cells exchange materials across the cell _____
- 14. The phase where chromatids separate
- 16. The phase where chromosomes first become visible

Across

- 4. Series of events a cell goes through as it grows and divides; the cell _____
- 6. The phase in which DNA copies itself
- 8. Holds sister chromatids together
- 9. When a cell divides, it forms two _____ cells
- 10. Cells that can become any other cell type; _____ cells
- 11. Division of the cell nucleus
- 13. The phase where cytokinesis begins
- 15. The phase where chromosomes line up along the equator