Khaled bin Sultan Living Oceans Foundation

STANDARDS

- **CCSS**: RST.9-10.1, 2, 4, 5, 6, 8, 10; RST.11-12.1, 2, 4, 6
- **NGSS**: HS-LS1-1, HS-LS1-4, HS-LS3-2
- **OLP**: 5.C.44, 5.C.47, 5.C.48, 5.C.53, 5.C.55, 5.C.56

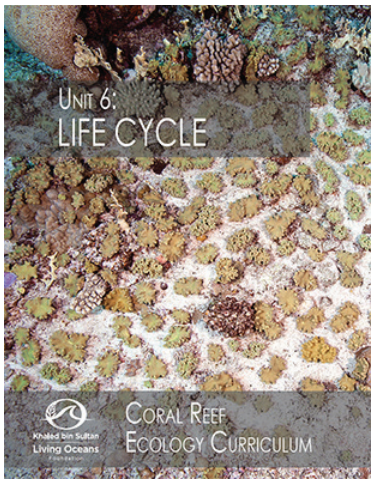
ONLINE CONTENTS

- Life Cycle Quiz

LIFE CYCLE

This lesson is a part of the *Life Cycle* unit, which explains the cell cycle and the life cycle of corals. Below is a summary of what is included in the entire unit.

UNIT CONTENTS



A. Background Information
   - Coral Life Cycle
   - Cell Cycle
   - Mitosis
   - Meiosis
   - Coral Cycles

B. Lessons

Coming Full Circle
- An activity to make a story wheel of the coral life cycle

Dividing the Parts
- A crossword puzzle to match the mitosis cell structures to their function

Label It!
- A worksheet to label the structures of a chromosome and a cell undergoing mitosis

Read it! Coral Recruitment
- A worksheet to accompany the *Coral Recruitment in the Garden of Good and Evil: How Baby Corals Get Started on Coral Reefs* field blog

Name: _____ Date: _____

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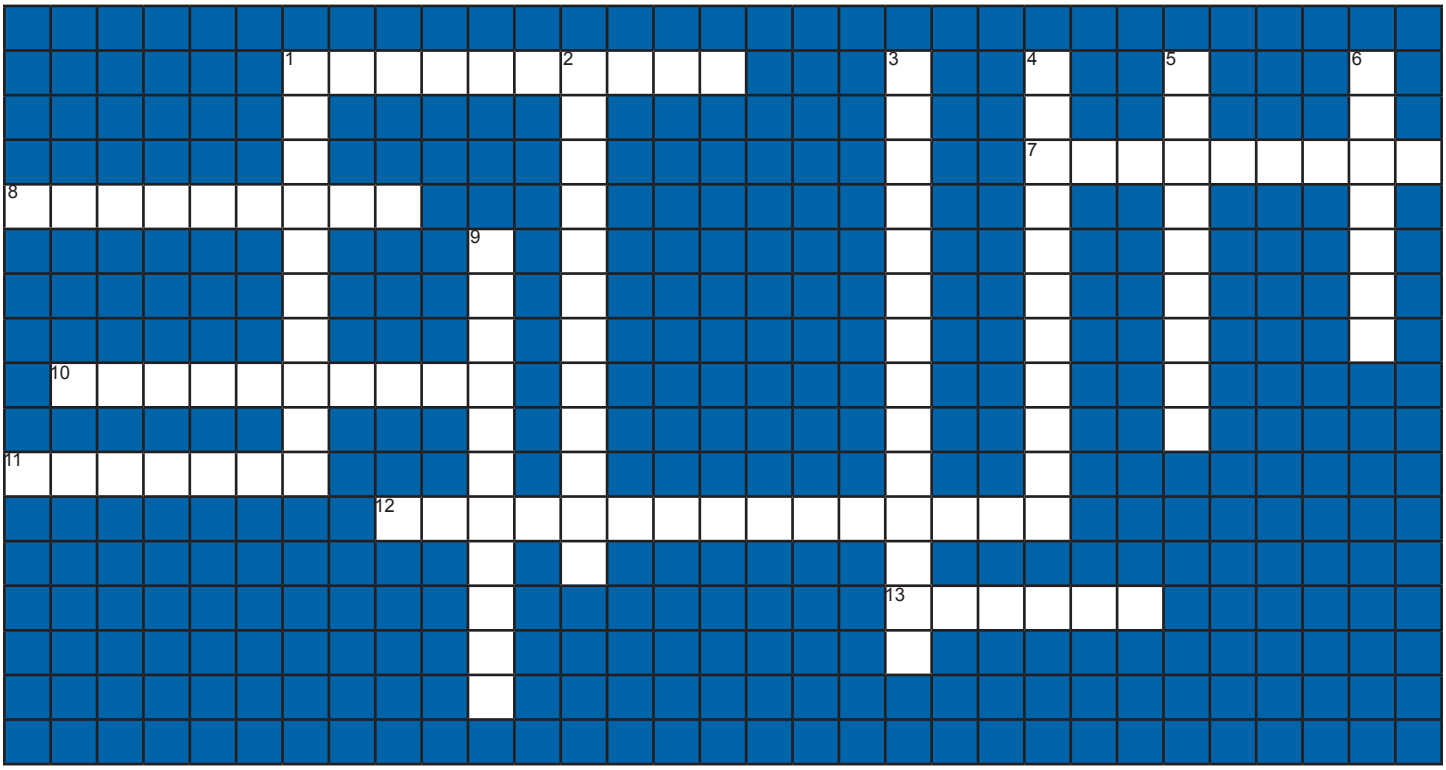
LESSON 2A

Dividing The Parts

INSTRUCTIONS: Fill in the crossword puzzle using the clues below.



ACROSS

1. During cell division, it migrates to opposite poles and aids in pulling apart the chromosomes.
7. When dividing a chromosome longitudinally, each half is called a _____.
8. A cylindrical organelle that consists of microtubules.
10. The area on the chromosome where the kinetochores attach during cell division.
11. A structure that separates chromosomes during cell division. It contains the spindle fibers and centrosomes.
12. A double layered membrane that surrounds the nucleus, separating the nucleus from the cytoplasm.
13. A group of four chromatids that form during meiosis.

DOWN

1. A long strand of molecules called DNA.
2. Clusters of microtubules that help to move chromosomes during cell division.
3. An imaginary vertical plane that divides the cell into two halves.
4. Miniature tubes that help to support the structure of the cell.
5. A process of exchanging chromosome segments (genetic material) during meiosis.
6. The area where crossover takes place and genetic material is exchanged during meiosis.
9. A structure that forms on the centromere of a chromosome that is the point of attachment for microtubules during cell division.