

Topic: Unit 2 Growth & Development of Organisms Test

Summary: Students are assessed on DCI LS1.B.

Goals & Objectives: Students will be able to demonstrate their understanding of the second unit by answering two application questions.

Time Length: 20 minutes

NGSS Standards: HS-LS1-4. Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.

Materials:
pencil or pen

Prerequisite Knowledge: Students have already been taught all three standards.

Accommodations: Students with an IEP can use their notes / binder / textbook to answer the questions.

Evaluation:

Create a model of the cell cycle, with labels and explanations of what is happening in each phase. Create a second model with labels of a stem cell replicating with one cell specializing and the other cell becoming a stem cell. Underline the matching phrases / keywords / drawings in the students' answers.

Name: _____ Row: _____

Date: _____ Period: _____

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Answer each question using drawings, labels with keywords and complete sentences.

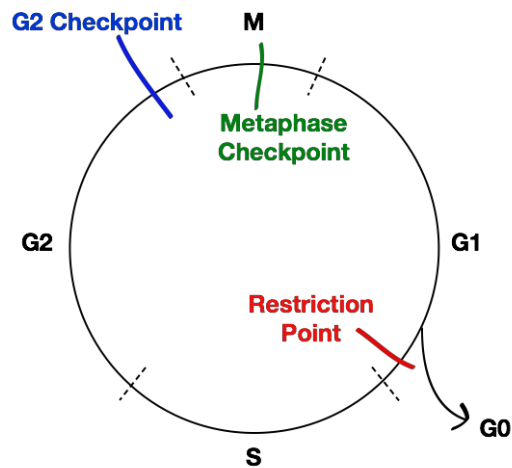
1. Draw a model and explain how plants and animals grow and copy information from the parent cell to the daughter cells.

2. Draw a model of what happens after a stem cell divides and explain what is happening.

Key

Draw a model and explain how plants and animals grow and copy information from the parent cell to the daughter cells.

1. Organisms grow by adding more cells using the cell cycle (cell division).
2. S phase is where DNA is copied (replicated).
3. Visual Model



Draw a model of what happens after a stem cell divides and explain what is happening.

6. After cell division, one cell will express (turn on) certain genes and turn off other genes to make a specialized cell.
7. The process to make a specialized cell is called differentiation.
8. Visual Model

