

#### WS Cell Division Gizmo

Name: Jasmin Brown Date: 12-11-20

## Student Exploration: Cell Division

Vocabulary: cell division, centriole, centromere, chromatid, chromatin, chromosome, cytokinesis, DNA, interphase, mitosis

Prior Knowledge Questions (Do these BEFORE using the Gizmo.)

 Cells reproduce by splitting in half, a process called cell division. What do cells need to do between divisions to make sure that they don't just get smaller and smaller?

They need to grow.

The genetic information of a cell is carried in its **DNA** (short for deoxyribonucleic acid). What do cells need to do between divisions to make sure that a full set of DNA gets passed on to each daughter cell?

The DNA has to be copied so there is a full set of DNA to pass on to each daughter cell.

#### Gizmo Warm-up

On the SIMULATION pane of the Cell Division Gizmo, check that the Cycle Length is set to 12 hours. Click Play ( ), observe until the maximum number of cells is shown, and then click Pause ( ).

- 1. Look at the cells. Do they all look the same? no
- Cells that are in the process of dividing are said to be in mitosis or cytokinesis. Cells that are not dividing are in interphase.

Check the Magnify box and move the cursor over the cells.

- A. Of the 100 cells shown, how many are in the process of dividing? About 5
- B. Select the BAR CHART tab, and turn on Show numerical values. How many cells are in the interphase stage of their life cycle? About 80
- C. Based on these two observations, would you say that a cell spends most of its life

# **Answer Sheet To Gizmo Cell Division**

**Lingsheng Yao** 

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