3D Cell Cycle

Overview: In this activity, the student builds a model of the process of the cell cycle in order to explain how the cell cycle promotes growth and maintenance.

Developed by Dr. Melody Hopkins-Tucker, Citronelle High School, Citronelle, AL

Materials:
• paper plates
• pipe cleaners
• beads
• popsicle sticks
• toothpicks
• construction paper
• tissue paper

Procedure:
1. The student is tasked with building a model describing the steps of the cell cycle in an animal cell.
2. Students will be divided into groups.
3. Each group will be responsible for making a paper plate model of one of the steps of the cell cycle. (Interphase, Prophase, Metaphase, Anaphase, Telophase, Cytokinesis)
4. Each group will have a paper plate and various supplies i.e., pipe cleaners, markers, beads, tissue paper, construction paper, yarn.
5. After constructing models, students will present their models to the class and explain the following:
   a. Describe what occurs during the step of the cell cycle they were assigned
   b. Explain how the step is important for growth and maintenance of an organism
   c. Explain what would happen to the cell if there is an interference in the step, such as spindle fibers didn’t form, chromosomes do not become visible, etc.
6. Then, each group’s cell stages will be strung together to make a cell mobile to hang in the room.