

CELLebration!

by Tiarra Knox

Students will be designing...

This design challenge will give students the opportunity to learn more about the structure and processes of the cell. In addition, students will come to see the analogous relationship between cell structure and their own communities. After learning about the cell, understanding analogies, and interviewing their classmates about their personal communities, students will create a model of a cell system that uses the structural components of an environment of their choice in order to define and classify the functions of a healthy cell.

Through engaging in this challenge, students will learn...

- To identify the parts of a cell (NGSS 3-LS1-1)
- To describe organisms as having unique/diverse life cycles with similar internal structures (NGSS 3-LS1-1)
- To recognize the interconnectedness of all life, drawing parallels with concrete and abstract exercises (NGSS 3-LS1-1)

Lesson 1

Students will identify the parts, purpose, and complexities of cell through a scavenger hunt-style lesson. Their hunt will end with the reveal of a YouTube video that makes analogous an animal cell and a Minecraft city. (45 minutes)

Lesson 2

Students will investigate analogies in cell structures and healthy functioning communities. Using the parts of a cell as a guide, the students will interview each other and decide which cellular components fit best with their class and home environments (or the environment of their choice). (60 minutes)

Lesson 3

Students will create cellular representations their “community” using the data they’ve generated from their interviews as inspiration. They will create sketches with pencil and

paper, and after receiving feedback from their teacher and peers, students can choose to redesign or move on to 3 dimensional craft materials. (60 minutes)