Call Me By My Organelle

By Jason Lapointe

Description:

In this single-class activity, students use cards to match cells with their organelles and functions. Students will better understand the internal organization of a cell, how organelles affect cell function, and be able to illustrate and explain different cell types. See a full description here.

Out of Class (Instructor) | **Out of Class (Students)** | **In Class (Instructor)** | **In Class (Students)**

Prepare Activity

Prepare to distribute the following materials to students:

1. The review handout that introduces the activity
2. In-class assessment handout
3. Bags of cards

Introduce Activity

- Assign new groups at least three days before the in-class tasks begin
- Distribute the first page of the review handout, "Assignment: Call Me By My Organelle"

Note: The handout lists the learning objectives, topics for students to review, and an introduction to the activity.

Prepare for Class

- Review the information provided in the review handout
- Review chapters and lecture notes related to the internal organization of the cell, specifically the organelles making up the endomembrane system, mitochondria, and cytoskeleton

Match Organelles with Names and Functions

Complete Part B:

- Collect the green cards with the names of organelles from the bag and match the 5 major organelles with their corresponding green card
- Collect the red cards with organelle functions and match them with the correct organelle

Review Organelles

- Pause to review organelles and their functions
- Distribute the second page of the review handout and the assessment handout

Identify Cell Types and Organelles

Complete Part C and D:

- Identify each cell type in the cards given, according to those listed in the table in Part D (on the second page)
- Considering their generalized functions, listed in the second column, predict the types of organelles and how predominant they are relative to the other cells

Review Cell Types and Initiate Assessment

- Pause the activity to review the cell types, their functions and organelles
- Initiate the final section of questions, which will be graded

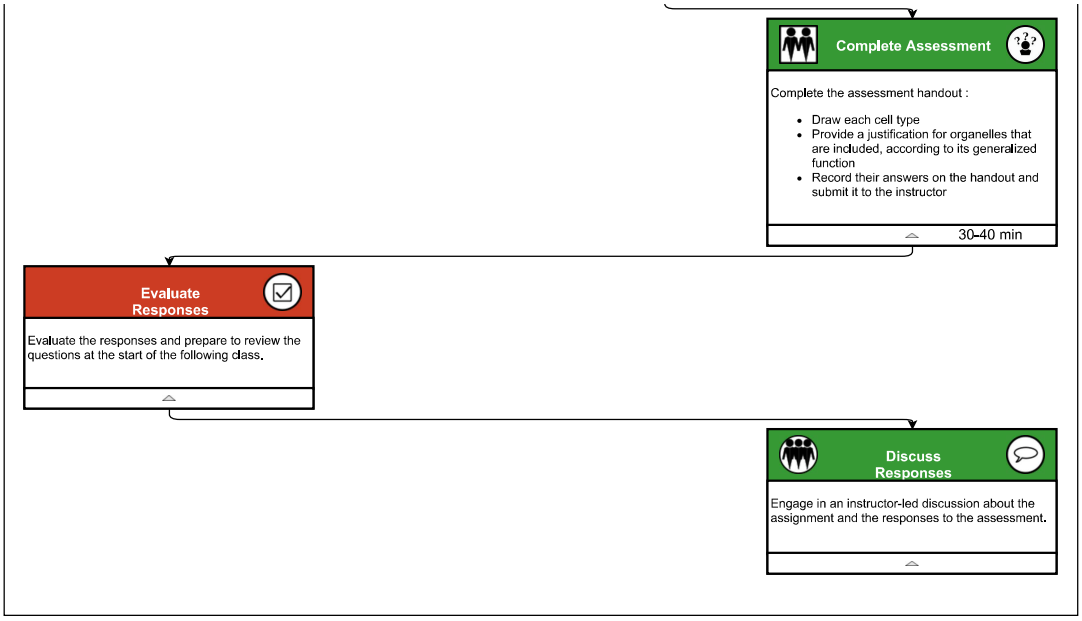
Legend

Context Icons:

- Individual Work
- Work in Groups
- Whole Class

Task Icons:

- Discuss
- Problem Solve
- Analyze
- Read
- Instructor Resource Curati
- Instructor Orchestration
- Instructor Evaluation


Complete Assessment
Complete the assessment handout :
Draw each cell type
Provide a justification for organelles that are included, according to its generalized function
Record their answers on the handout and submit it to the instructor
30-40 min
Evaluate Responses
Evaluate the responses and prepare to review the questions at the start of the following class.
Discuss Responses
Engage in an instructor-led discussion about the assignment and the responses to the assessment.