## 2013-2014 Henrico21 Lesson

**Pinteresting Cells** 

Target Grade/Subject: 7th grade Life Science

TIPc Focus: Creativity & Innovation, Critical Thinking & Problem Solving

TimeFrame: Lesson <180 minutes

## Summary:

Have you ever wanted to be a Professional Pinner? Someone who gets paid to find and pin items to a Pinterest Board for a company or business? Today is your chance!

You are applying for the position of Professional Pinner for Nature.com. Part of your application process is to create a board for them on cells. This board must help people understand how a cell's organelles help it function. Since this is a Pinterest "board," you have to select a theme to which all your pinned images will relate.

You will be selecting images that can represent each organelle without actually being that organelle. You have to include the name of the organelle, what it does and how the image represents the organelle.

# **Essential questions:**

- What are the basic structures found in a typical animal cell?
- What is the function of each cellular structure?
- How can other things convey the same function as an organelle using a different context?

# **Lesson Development:**

#### Prior to lesson

- Students previously learned about cell structures and functions.
- Students were distributed a <u>Pinterest Assignment Sheet</u> using the <u>Doctopus</u> script in a Google spreadsheet. (The google doc student artifacts below do not match the linked Pinterest Assignment Sheet. It was modified after implementation. The redesigned sheet includes a graphic organizer/table to assist the students with brainstorming.)
- The <u>rubric</u> was attached to the student pages using the <u>Goobric</u> script.

### Process

1. <u>Pre-Assessment</u> was administered on the 10 cell organelles and experience with

- Pinterest . (Results are here.)
- 2. The class was shown a collection of boards on Pinterest.com. **Teacher** asked if students could explain what Pinterest did, looking for **Student** answers related to: themed boards, similar pins, interests of person, shared with other people etc.
- 3. **Students** brainstormed their own themes or things they like (shoes, weddings, vacations, food anything). Their ideas were written on the board.
- 4. **Teacher** presented the task to students (They are applying for the position of Professional Pinner). The task sheet was projected on the board and reviewed with the students. The <u>rubric</u> was reviewed with students. A paper copy of the rubric was placed in a page protector to keep a class set. A <u>sample Pinterest board</u> was projected and students used the paper copy while they evaluated the sample Pinterest board using the rubric.
- 5. **Students** discussed with an elbow partner how the themes they brainstormed might be related to the 10 cell organelles and individuals decided on the theme they would use.
- 6. **Students** created or accessed their Pinterest accounts
  - Students with accounts accessed Pinterest and created a new board.
  - Students without accounts created a Pinterest account and created a board. The ITRT was available to assist students who needed help. Students used their Google accounts to login to Pinterest.
  - Students created their project board.
- 7. **Students** accessed their <u>student page</u> which was previously distributed via Doctopus in their Google Drive.
  - Teacher:
    - point out the area for pasting the board link,
    - review the reflection questions they will complete when they are finished and
    - remind students that they can use the student page for brainstorming and ideas if needed.
- 8. Students created their individual board and pasted the link on their student page. Students used their brainstorming notes to find and pin images that would represent the organelle based on the selected theme. Students were able to discuss with their elbow partner if needed to talk out their ideas. Teacher walked around the classroom to assist as needed. Teacher asked probing questions to help students find relationships between the organelles and an object from the theme each selected. Teacher encouraged students to consult their elbow partner first.
- 9. Once completed **students** accessed their classmates' boards to view the themes and representative images. **Students** added comments to boards and images that were good representations of the organelles based on the board theme.
- 10. **Students** completed the reflection questions on the final <u>Google survey form</u>.
- 11. The **teacher** used Goobric to grade the Pinterest boards so that the results from the rubric would paste on the student page.

## **Student Artifacts:**

## Pinterest Boards (live while students haven't deleted them)

- 1. Soccer Pinterest Board
- 2. Shop till you Drop Pinterest Board
- 3. Baka Cells Pinterest Board
- 4. "Dive" into my Cell Project! Pinterest Board
- 5. Football Pinterest Board
- 6. Living Cell The Forest Pinterest Board
- 7. Living Cells Project Cars Pinterest Board
- 8. Living Cells Weddings Pinterest Board
- 9. Living Cell Cook Pinterest Board
- 10. Sundae Cells Pinterest Board
- 11. the human body a living cell Pinterest Board
- 12. Living Cells Rockets Pinterest Board
- 13. Cell-anet Earth Pinterest Board
- 14. Laptop Pinterest Board
- 15. The Cell XBox Pinterest Board

### Google Doc student sheets

- 1. Google Doc
- 2. Google Doc
- 3. Google Doc
- 4. Google Doc
- 5. Google Doc
- 6. Google Doc
- 7. Google Doc
- 8. Google Doc
- 9. Google Doc
- 10. Google Doc
- 11. Google Doc

Student Reflections from the Survey

## **TIP Chart Assessment:**

Categories:

Research and Information Fluency: not a focus of this lesson

Communication and Collaboration: not a focus of this lesson

**Critical Thinking and Problem Solving**: Target - Students applied higher order thinking skills to this open-ended task. Students related their own personal interest to the various organelles found in cells. Students had to apply critical and abstract thinking to determine how an aspect related to their theme could represent an organelle in a cell.

Students were required to evaluate their choices and justify how each image related to the organelle it was intended to represent. Students reflected on how they chose the images for their board and on how their understanding of the purpose/role of the cell organelle was improved after completing their board.

**Creativity and Innovation**: Target - Students created science related Pinterest boards that had personal meaning because of the student's opportunity to select a topic of interest to them. These boards show originality and thoughtful, meaningful work. Students synthesized thier own knowledge to generate a new way to relate science content to their own interests. Students demonstrated strategic risks in their selection of topic/interest to use as the theme for their board.