

The Body VR

THE BODY VR

OBJECTIVE

Students will experience a simulation showing some basic body processes of the human bloodstream. This includes the roles of red blood cells, white blood cells, and platelets.

MATERIALS

- Oculus Rift
- Oculus controller/Touch
- Copies of the “Information Collection” or corresponding Google Doc
- Google Slide link to “Four Corners” questions:
<https://docs.google.com/presentation/d/1yjop72DpfKy7GANYAHhEtlwLCYNhO-j2DN1DnT4iIHw/edit?usp=sharing>
- Quizlet link:
https://quizlet.com/_48b895
- Crossword puzzles (optional)

SYNOPSIS

The Body VR is a VR experience with a small amount of interaction. The user is taken on a journey aboard a vessel through the blood stream and into a cell. The graphics are visually stimulating and the information is given by a narrator. There are seven sections to this experience that lasts a little less than 12 minutes.

This activity requires communication between the student in the headset and their partner as they gather information. The information can either be entered into a Google Doc or the accompanying paper form.

The culminating activity is called “Four Corners”. It is a multiple choice review activity that engages students by having them move to a corner of the room to declare their answer. The questions are on a Google Slides in the “Materials” section of this page.

TIMELINE

This activity is designed to be completed in 3-45 minute sessions.

OPTIONAL REINFORCEMENT ACTIVITIES

We will also provide the following materials:

- Two different crossword puzzles that cover the biology terms covered in the experience
- Quizlet for review



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TIMELINE SUGGESTED SEQUENCE

Days 1-2

- Before Day 1
 - Either make copies of the “Information Collection Sheet” or share the Google Doc for it with the students.
 - Pair students. Grouping them with someone they will work with is helpful.
 - Note - Do not share the Quizlet until the VR experience is complete, as it would provide many of the answers.
- Introduction to the activity is given by the instructor
 - Cover the main objectives.
 - Briefly discuss the content to be covered.
 - Emphasize the need for communication between the person in the headset and the person outside the headset.
 - Inform students that each student will complete the entire experience at least once. If they miss some information, they can go back and redo sections.
- STEM VR team works with Biology students as they experience The Body VR app for the remainder of Day 1 and as much of Day 2 as needed.
- Provide access to the Quizlet through Google Classroom for them to study the night of Day 2.

Day 3

- Setup 4 areas in the classroom. Identify them as “A”, “B”, “C”, and “D”. These will be designated areas for multiple choice answers.
- Use the Google Slides for this activity. Project the questions on the board. Students must decide which answer they think is correct and go to the designated area. After every slide is an answer slide. This is a fun review activity. If you would like to keep score for a reward system, that is an option.
- Crossword puzzles are optional.
- Quizlet is optional



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TIMELINE

SUGGESTED SEQUENCE

STANDARDS

Biology (9-12)

- Cells
 - Cytology
 - Associate the different cell organelles with their particular functions and their relevance to the continuation of life.
 - Demonstrate that the characteristics of life are regulated by cellular processes.
 - Homeostasis and Plasma Membrane
 - Discuss how the components of the selectively permeable cell membrane determine in part what cells can transport.
 - Identify and differentiate between the processes of active and passive cellular transport and their importance to maintaining life through both endocytosis and exocytosis.

