

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
- Chromebook/Paper to complete “Free Verse Poem” activity.
- Crossword puzzles (optional)
- Quizlet link:
https://quizlet.com/_48b895

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 requires each student to construct a free-verse poem using ten terms selected from a word bank. The terms are all covered during the VR experience.

TIMELINE

This activity is designed to take 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
- A Quizlet with the biology terms that can be shared to assist students with studying if the instructor chooses to administer a quiz.



The Body VR

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.
 - Make copies of “Free Verse Poem” activity sheet.
 - 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 that will 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.
 - Briefly introduce “Free Verse Poem” activity they will each be completing after the VR experience.
- 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.

Day 3

- Students will use the information gained during days 1-2 and documented in the “Information Collection” sheet to construct a free-verse poem. The poem should consist of at least 10 vocabulary terms chosen from the word bank.
- The poem can either be done on the given sheet or in a Google Doc. Teacher choice.
- Students need to complete an “end-of-activity” survey. A link will be shared with the instructor to be posted on Google Classroom.

Day 4

- Post/Share student work. Hold a short discussion about the experience, reinforcing vocab and concepts covered.
- Crossword puzzles are optional.
- Quizlet is optional
- Quiz is optional as an additional assessment to the poem.



The Body VR

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.

