

Unit 2: A Journey Through the Immune System



LESSON 2:

Introduction to different types of white blood cells, or leukocytes

INSTRUCTIONAL OBJECTIVES

Students will know several different types of white blood cells, grasp what antigens and antibodies are, and know how the different white blood cells identify and attack the appropriate invader.

MATERIALS

- Students' own HBD case file folders
- Students' Immune System Self Portrait
- For Battle with the Bugs game: print names of different types of white blood cells in different shapes and sizes representing neutrophils, eosinophils, basophils, lymphocytes (with antibody—may use a post-it to remove and stick to antigen) and macrophages
- For Battle with the Bugs game: print names of viruses, bacteria, parasites, allergens, mosquito bites (with an antibody marking for tagging with a B-cell lymphocyte antibody)
- Downloadable HBD Code and Immune Mystery Story
- Glue sticks
- Optional: Avery Labels #5164

OVERVIEW OF CONTENT

- Introduction to different types of white blood cells, or leukocytes
- Discuss important components of immune system, specifically white blood cells
- Play Battle with the Bugs game
- Work on Immune System Self-Portrait
- Review, Q&A, conclusion

INSTRUCTIONS

- 1) **Introduce** how, in children, white blood cells are made in the spleen, then as children grow white blood cells are primarily made in the bone marrow—which is located inside the bone—and the thymus.
- 2) **Introduce the different types of white blood cells:**
 - **Neutrophils:** these scout for bacteria and fungi.
 - **Eosinophils:** these look out for parasites and also play a role for people who have allergies.
 - **Basophils:** these release a chemical called histamine and create inflammation. For example, when you get a mosquito bite and the area becomes itchy and red, your basophils are working!