

The goal of the Blood Cell Activity is to be an interactive, hands-on activity, using materials children can manipulate and explore. This activity supports their learning and understanding about blood, blood cells, and how leukemia, or blast, cells impact how the blood cells function.

In addition, this activity has opportunities for repetition and for children to recall information shared, which are both developmentally appropriate strategies that aid in a child's learning experience.

The Blood Cell Activity be done for general learning purposes, for children impacted by leukemia, and/or for children who know someone who is impacted by leukemia.

Definitions

Cells

Cells are things that make up your body. They are so small you cannot see them without a microscope. Every part of your body is made up of cells, both outside and inside. Your body also makes and replaces cells all the time. There are a lot of different types of cells and they all have unique jobs that work together to keep your body strong and healthy.

4 Parts to The Blood

Plasma

Plasma is the liquid part of your blood that helps the red blood cells, white blood cells, and platelet cells travel throughout your body.

Red Blood Cells

Red Blood Cells are a type of cell that are found in your blood. Red Blood Cells carry nutrients, vitamins, and oxygen to your entire body. They also give you energy to run, jump and play.

White Blood Cells

White Blood Cells are a type of cells that are found in your blood. White Blood Cells fight off germs and help to keep the body healthy.

Platelets

Platelets are a type of cell that are found in your blood and helps your body heal. When your body gets hurt, platelets join together to form a seal or scab to stop bleeding.

Materials



2 clear containers with lids
(small mason jar or Tupperware)



Plasma: vegetable oil or water with
red food coloring



Red Blood Cell: Red Beads
(bags of Pony beads can be found on
Amazon or in a craft store or any
white bead)



White Blood Cell: White Beads
(bags of Pony beads can be found on
Amazon or in a craft store or any
white bead)



Platelet Cell: Tri Beads
(bags of Tri beads can be found on
Amazon or in a craft store)



Blast Cell: Geometric Bead
(Bicone beads or a geometric bead
can be found on Amazon or in a craft
store or any purple bead)

Instructions

Healthy Blood

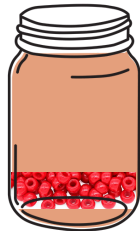


step 1

Add the oil/water and food coloring to the first container.
This is the **PLASMA**.

*Only 1-2 drops of red food coloring so it is not too dark

*Talk about the job of the plasma in the blood

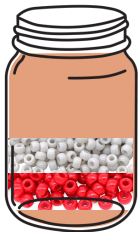


step 2

Add the red beads, these are the **Red Blood Cells**.

*Add a small layer taking up around 1/4 of the jar.

*Talk about the job of the red blood cells in the blood.



step 3

Add the white beads, these are the **White Blood Cells**.

*Add a small layer taking up around 1/4 of the jar.

*Talk about the job of the white blood cells in the blood.



step 4

Add the tri beads, these are the **Platelet Cells**.

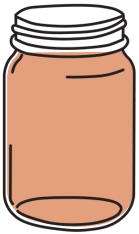
*Add a small layer taking up around 1/4 of the jar.

*Talk about the job of the platelets in the blood.

step 5

Shake the container and talk about how there is room for cells to move around. This is how cells travel through the blood to get to different parts of the body to do their jobs.

Blood with Leukemia



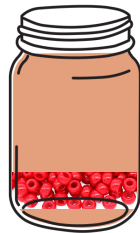
step 1

Add the oil/water and food coloring to the second container.

This is the **PLASMA**.

*Only 1-2 drops of red food coloring so it is not too dark

*Talk about the job of the plasma in the blood

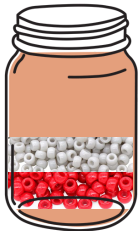


step 2

Add the red beads, these are the **Red Blood Cells**.

*Add a small layer taking up around 1/4 of the jar.

*Talk about the job of the red blood cells in the blood.



step 3

Add the white beads, these are the **White Blood Cells**.

*Add a small layer taking up around 1/4 of the jar.

*Talk about the job of the white blood cells in the blood.



step 4

Add the tri beads, these are the **Platelet Cells**.

*Add a small layer taking up around 1/4 of the jar.

*Talk about the job of the platelets in the blood.



step 5

Add the geometric beads, these are the **Blast Cells**.

*Fill up the rest of the jar.

step 6

Shake the container and talk about how the blast cells take up space and there is **NOT** room for cells to move around because the blast cells are blocking them.

Point out how the cells being so squished together make it hard for the blood cells to travel around to the different parts of the body to do their jobs.