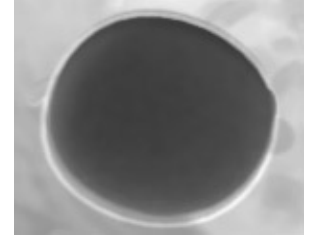


What's in Blood?

Name _____

Background: Have you ever had vegetable soup for lunch? There are many different things in vegetable soup. The liquid part, sometimes called broth, is thin and watery. Vegetable soup also includes different kinds of solid vegetables, such as carrots, potatoes, and peas. Your blood is kind of like vegetable soup. For example, your blood is not the same throughout. The blood contains a liquid part, as well as solids.



There are four main components of blood: plasma, red blood cells, white blood cells, and platelets. The liquid part of blood is called plasma. About 90% of plasma is made up of water. Plasma carries particles that come from the breakdown of food as well as other important things the body needs. Floating in the plasma are the three other components of blood. Red blood cells, the most abundant cells in blood, supply the body with oxygen. White blood cells are the body's disease fighters. They are bigger than red blood cells but there are fewer of them. There is only about one white blood cell for every 500 to 1,000 red blood cells. Drifting in the plasma are small platelets. Platelets are fragments, or pieces, of cells that play an important role in clotting blood when you have a cut or injury. In this activity, you will create a blood-like mixture using some simple ingredients.

Materials: Water, red beans, large white lima beans, crushed beans, 1000 ml. container, spoon or glass stirring rod.

Directions:

1. Obtain a 1000 ml. container. Fill it with about 600 ml. water. Add a couple drops of juice or a few crumbs of food. Stir.
2. Count out about 50 red beans. Pour these into the container. Stir.
3. Add one large white lima bean. Stir.
4. Next, add a few pinches of crushed beans. Stir.

Questions:

1. What is plasma? What represents plasma in your blood mixture?
2. What represents red and white blood cells in the blood mixture?
3. Why are there so many more red beans than white lima beans?
4. What do the crushed beans represent?
5. What is the role of platelets?