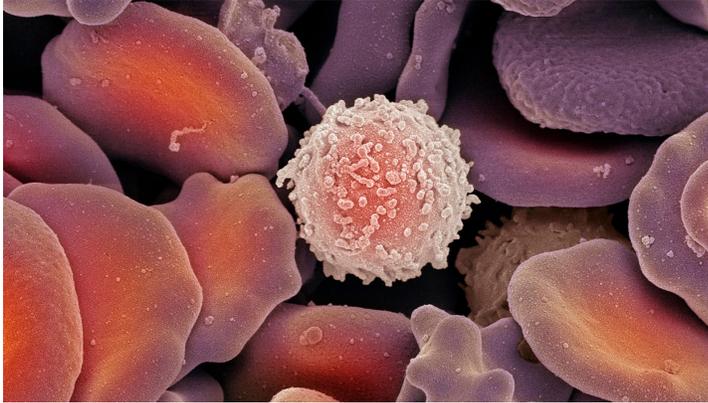




## Viruses and Blood Composition (Hands on Activity!)

Preschool-2nd grade

*How does our body respond to a virus?*



With this hands-on activity you will explain to young children the common question: *why do we get sick?*

Show children a [video](#) or talk to them about the differences between bacteria and viruses and how they have positive and negative effects on our health.

### **Blood Composition Soup** activity!

Gather your materials: a big bowl (or container of some sort), and any other material that could represent the 4 components of blood (plasma, white blood cells, red blood cells, and platelets.)

Read the description of the components of blood as you add them to your Blood Composition Soup. Let your kids mix the materials and simultaneously ask them questions to check for understanding as you add the components of blood.

1. Plasma (add water with red food coloring): Blood plasma is made up of 90% water and also contains various nutrients, electrolytes, gases, proteins, glucose and hormones.
2. Red Blood Cells (add pasta colored with red marker to represent oxygenated RBC): Red blood cells have the important job of carrying oxygen around the body. They also contain a protein called hemoglobin. Hemoglobin contains iron which combines with oxygen to give hemoglobin and our blood, a red color. Red blood cells develop in bone marrow and circulate in the body for around 120 days.
3. Platelets (add rice): Platelets help blood clot in order to limit bleeding when your skin is cut. Blood clots can occasionally have negative effects, if they form in blood vessels going to the brain they can cause a stroke while clotting in a blood vessel going to the heart can lead to a heart attack.
4. White Blood Cells (add cotton balls): White blood cells are an important part of the body's immune system. They defend against certain bacteria, viruses, cancer cells, infectious diseases and other unwanted materials.

Encourage discussion and curious minds as they have a sensory experience playing with the blood composition soup! [Look up](#) more child appropriate facts about blood composition and viruses to further the exploration and answer the question: *Why do we get sick?*

Hopefully gain a better understanding on how the immune system handles viruses in our bodies. Extend this exploration based on children's interests and questions!