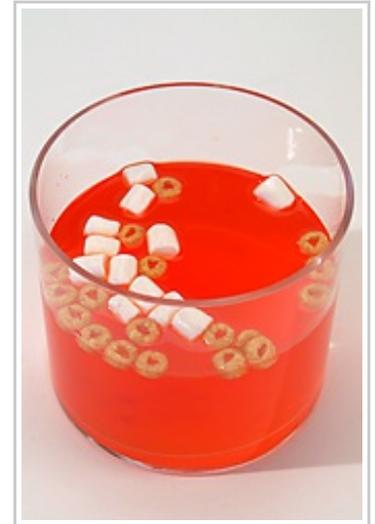


# Explore Blood Science!

When our children fall and injure themselves or get a cut, being the inquisitive little explorers that they are, they often become curious about the blood they see. They may ask many questions such as, where does it come from? Why do we have it? Is it harmful or helpful? Why is it red? This activity uses many items that are familiar to your child to allow him to create a model of blood and all its parts. He will learn about blood's different parts, why we need blood and what it does for us. Have fun learning about one of the most important parts of the body!



## What You Need:

- A quart of water dyed yellow with food coloring
- 1 eight-ounce glass
- Measuring cup
- Salt
- A few Cheerios
- Red food coloring
- Spoon
- Miniature marshmallows
- A short tube or wide straw
- A funnel that will fit the tube or straw
- A basin or large shallow bowl

## What You Do:

1. Begin by brainstorming what he already knows about blood. (It is found in people and animal bodies, it makes them live, when you get hurt or cut you bleed, etc.). If he is not already aware, explain that blood carries food and air (oxygen) to every part of the body to help each part do its job. Blood also helps the body stay healthy by fighting germs. Explain that blood has many parts that we can't see with our eyes, but can be seen with a powerful microscope. Blood is a very important part of our bodies and keeps us alive. Today he is going to learn what blood would look like if he were able to see it under that powerful microscope.
2. First, give him a handful of Cheerios and about 6 mini marshmallows. Explain that he will be using these things as two very important parts of blood: red blood cells and white blood cells.
3. Use the measuring cup to measure  $\frac{1}{2}$  cup of the yellow water into the glass. Tell him this liquid looks like the yellowish part of real blood called plasma, in which all of the other blood parts float.
4. Next, sprinkle a few shakes of salt into the yellow liquid and explain to him that the plasma part of the blood contains salt in it as well other chemicals.
5. Now, help him to add a few Cheerios and 2-3 drops of red food coloring into the quart of "plasma" and stir it in the bowl until it is dark red. Talk with him about how the Cheerios are like the doughnut-shaped, red blood cells in his own blood. You might want to point out that red blood cells are indented in the center but do not have real holes in them. Explain also that these red blood cells are a very important part of our blood and that they carry food and air (oxygen) to different parts of the body.
6. The next part to add to the blood is the white blood cells or marshmallows. Explain to him that the marshmallows look like his white blood cells in his body. These white blood cells are also a very important part of our blood because they help to fight off germs and harmful chemicals that invade our bodies and could make us sick.
7. The final step in this blood making activity is to use the funnel and the tube or straw. Use the

measuring cup or the glass to funnel some of the red water (making sure not to get any Cheerios or marshmallows) through the tube or straw. This is similar to the way that our blood travels through tubes called veins and arteries throughout our bodies reaching all of its different parts. You can also explain to him that veins carry "used oxygen-poor blood" from throughout our bodies back to our heart. The heart then pumps the blood into the lungs, where it picks up fresh oxygen. The oxygen-rich blood is then carried back out to the rest of the body by the arteries. Which means our blood is constantly being recycled!

Note: Using a simple model or photo of our bodies showing the parts discussed would be a helpful visual aid if one is available.

The next time he falls and scrapes his knee or cuts his finger, don't be surprised if he begins to talk about all that he knows about blood!

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