



# Bits of BLOOD!

CLASS: 4<sup>th</sup> – 6<sup>th</sup>

25 mins

Biology



## Learning Objectives - WALT (We are learning to...)

1. Understand what is blood and what jobs does it do
2. Become familiar with the different parts of blood and make models of them

Curriculum links  
Living Things and Human Life

## Teaching Methodologies

- **Talk and Discussion** - listening, questioning
- **Collaborative/Cooperative Learning** - group work
- **Active Learning** – Through observation and participation
- **Skills through Content:** observing, predicting, describing, recording,

Recording Predicting  
Communicating  
**Observing**  
Analysing Questioning  
Investigating and Experimenting

## Introduction

So what is blood? Blood is like your internal delivery system. It's primary role is to take oxygen that you've inhaled through your lungs and with the help of the heart, bring it all over your body.

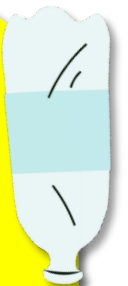
Adults have about 5 litres of blood whereas children have about 3. Blood has 4 main parts that we want to talk about. Red blood cells, white blood cells, platelets and plasma.

**Red Blood Cells.** In a single drop of blood there are about 5,000,000 red blood cells. So the same amount of people in Ireland roughly. Red blood cells carry oxygen around the body. They are the reason that blood is red because there are more red cells than any of the other types of blood cell. Blood is always red but it a different shade of red depending on whether it is carrying oxygen or not. They are shaped like bowl with a really thick rim.

**White Blood Cells.** There are about 12,000 white blood cells in a single drop of blood. Their job is to be part of our immune system and help fight off infections. They are the biggest blood cell but also the fewest. There are a few different types of white cell but they all help fight infection. They come in different shapes and some look like furry golf balls.

**Platelets.** Platelets are not actually cells but parts of cells. There are about 200,000 in a drop of blood and their job is to stick together against one another when there is a break in a blood vessel like a cut. They help the blood clotting process and help form scabs so that your skin can heal after its been hurt. They have long stretchy almost limbs and are small.

**Plasma** is the yellowy clear liquid that all of the blood cells float in and makes up about half of the volume of the blood that you have! (You can make a model of the blood using mala!)



## Activity – Making Fake Blood!

This activity is relatively simple to do but it can get a little messy so wear an apron or old clothes

Get your ingredients ready from the list on the right. The amounts used vary depending on how much fake blood you want to make but the ratios i.e. the relative measurements of each part should be the same no matter how much you're making. The good news is that you can always add more ingredients as you experiment to get your fake blood exactly how you want it. This recipe should make enough to use on your face (about 8ml).



### Process:

Get one teaspoon of cornflour (other flour should work too) and drop it into the bowl.

Then add half a teaspoon of red food colouring

Next add one full tablespoon of syrup. I use maple syrup and that worked fine. Often you'll see recipes with corn syrup but that is not readily available in Irish shops.

Next add a couple of drops of blue food colouring to darken your blood

Finally grab the whisk and stir like crazy making sure to add a maniacal laugh or two.



Play around with the mixture until you are happy with the colour and consistency of the fake blood. Great thing about this is that you can eat it! Bad thing is that it will stain. Great thing – it'll scare anyone who sees it!



Be careful with the mixture as the food colouring can stain hands and also skin. It's not dangerous but can take a while to wash off!