

Why Is Blood Red?

LIFE SCIENCES, HEALTH

Get curious

Talk

Begin the class with a talk on what blood is and what it looks like.

Ask the students: What is blood? Why do we have it in our bodies, and what do we need it for? What kind of consistency does it have? What color is it? How do we know what it looks like? Have you ever had your blood taken?

Get going

Observing

Talk about what blood consists of, look at a model of blood (prepared by you earlier) and a model of its only liquid component – plasma.

Ask the students: what do you think blood consists of? Which of its features can we see with the naked eye?

Video/ Slide show

Watch a film about red blood cells and look at an earlier prepared model of an erythrocyte. Discuss the functions performed by this blood component.

Show the students a model of a red blood cell so that everyone can see it from close up. Ask them: what shape is this blood cell? Is it perfectly flat? Why do you think the blood cell is dumbbell shaped?

After watching the video, ask the students: What is the purpose of the red blood cells? Does blood contain a lot of these cells or just a few? Do you already know why blood is red?

Movement game

The students pretend to be red blood cells and take part in a game to show them how these cells function

Video/ Slide show

Show the students the next model – this time of white blood cells. Watch a video showing how a white blood cell chases bacteria.

Ask the students: What are white blood cells responsible for? How do they operate? How many of them do you think there are in our blood?

Movement game

The students take part in a game of scouts and commandos, thanks to which learn and consolidate their knowledge about the functions of white blood cells.

Talk

The students look at a model of blood platelets and watch a short video explaining how blood platelets help wounds to heal.

First, ask the students: What happens when you cut yourself and blood pours from the wound? How long does it "leak out"? Why do wounds eventually heal?

Show the students a model of blood platelets made earlier and ask them the following question: why do you think they have the shape they do? What is the purpose of the small "handles" and "hooks"?

After the film, ask the students: What role do platelets play? How long do they live? What might happen if we didn't have them in our blood? What occurs in a wound as a result of the action of blood platelets?

Summary

To sum up, watch a short video about the components of blood.

You can ask the students: Do you think the composition of blood is always the same? What does it depend on? You can sum up one more time: Why is blood red?

Get practicing

Brainstorming

The students think about why blood is tested and what kind of information can be obtained based on the number of white and red blood cells in a person's blood.

What may happen when someone has too many/not enough white or red blood cells? Note down your ideas and talk about them in the next lesson.
