



# Super Heroes Save Lives!

Health and Social Sciences Classroom Activities from:



[www.nzblood.co.nz](http://www.nzblood.co.nz)

## TEACHER BACKGROUND

New Zealand Blood Service will be celebrating World Blood Donor Day on 14 June. Young Donors are an important part of the Blood Service. As the need for blood is increasing in all parts of the world, young people (including those not old enough to give blood) can make an important contribution by recruiting new donors and saying thank you to present donors of blood.

## WHAT DO WE KNOW ABOUT BLOOD?

- Pose the above question and challenge groups to write a list of all the facts about blood that they presently know, **eg**
  - *do they know the reason(s) why we have blood, how much blood we have, and how does it move around or body?*
- Introduce the term 'cardiovascular system'. Do any students know what this is? Does looking up the words 'cardiac' and 'vascular' help?

<http://yucky.discovery.com/flash/body/pg000131.html>

Print out the information on this page for the class as a shared reading activity or use online group research. Through discussion, ensure students can answer the following questions:

- *what parts make up the cardiovascular system?*
- *what does this system deliver to the body and what does it remove from the body?*
- *what happens when your heart contracts and relaxes?*
- *how does oxygen get into the blood and where does it go?*
- *can they identify the parts of the blood and their purposes?*
- *what 'factoids' do they find surprising? why?*

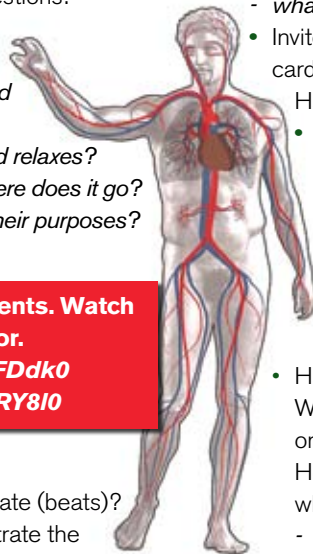
**Cardiovascular videos suitable for students. Watch online or use multi-media/data projector.**

[www.youtube.com/watch?v=D3ZDJgFDdk0](http://www.youtube.com/watch?v=D3ZDJgFDdk0)

[www.youtube.com/watch?v=UztBWnRY8I0](http://www.youtube.com/watch?v=UztBWnRY8I0)

## HEALTH FOR OUR HEART

- What do we mean when we talk about heart rate (beats)? What do students think is happening? To illustrate the pump-like action of the heart, have them open and close their fist just slightly faster than once per second over a minute. If the average heart rate is 70-80 beats (pumps) per minute at rest, can students calculate how many times it will beat: per day, per week, per month, per year etc.? Show students how to take their pulse on their wrists. What is their current heart rate when seated? What happens to their heart rate after exercise? Can they say why this happens?
- Introduce the idea that if our heart has to beat so many times during our lifetime then it is very important to keep it healthy. Have groups conduct research at *Kids Health*:  
[www.cyh.com/SubDefault.aspx?p=255](http://www.cyh.com/SubDefault.aspx?p=255)



> **Select Your Body** > scroll down and select **Your Heart**.

- Have them report back on the actions they should take to keep their heart healthy. By using the *Fitness and Your Food* sections, have each student come up with an appropriate eating and exercise personal plan for heart health.

## BLOOD – WE CAN'T LIVE WITHOUT IT

[www.cyh.com/SubDefault.aspx?p=255](http://www.cyh.com/SubDefault.aspx?p=255) > from the **topics menu select Topics A-Z** > select **Blood – we can't live without it**. Print out and distribute to the class. Discuss:

- *how blood keeps our bodies going*
- *the components of the blood and the job each component plays in keeping our body healthy.*
  - *what we can do to keep our blood healthy.*
- Invite a health professional to talk to the class about the cardiovascular system and how to keep it healthy. Have groups pre-prepare questions to ask.
  - Display all findings in visual and written form on a class 'cardiovascular' wall chart.

## WHAT IS A BLOOD TRANSFUSION?

- Introduce the idea that from time to time, people need extra blood because they have lost more than the body can make in a short time – that is they need a blood transfusion.
  - Have any students heard of a blood transfusion? What is it? Who would need it? Has any class member or person in their family ever had a blood transfusion? How did it help them. Challenge students to list situations where a blood transfusion would be needed, **eg**
    - *loss of blood from a motor accident or deep cut*
    - *during an operation in hospital*
    - *if people have a disease of the blood and need to renew it with healthy blood.*
- As a shared reading exercise read and discuss the **'Blood Types** and *Blood Transfusions* section of the *Blood – we can't live without it* (previously printed out). Ensure students:
  - *understand and can identify the four main blood types*
  - *understand the Rhesus factor*
  - *know why it must be matched with the patient's own blood before they receive a transfusion*
  - *know who can take and receive blood from whom*
  - *understand the concept of a universal donor and receiver*

# World Blood Donor Day



[www.nzblood.co.nz](http://www.nzblood.co.nz)

## WHAT PEOPLE THINK ABOUT DONATING BLOOD

- Do the students know that a person who donates blood is known as a blood donor? Have students survey family members to find out what they know about donating blood. What questions will they ask? **eg**
  - *have they ever needed a blood transfusion?*
  - *how important do they think donating blood is?*
  - *have they ever donated blood?*
  - *what happens to the blood that is donated?*
  - *who can donate blood and do they intend to? Why/Why not?*
- Have students report back to the class and collate survey results in graphic form. What conclusions can they reach from the survey results? Pay particular attention to the answers to question 2 and question 3. Discuss their relationship.

## FINDING OUT THE FACTS

- Introduce students to the concept that every time a blood donor donates blood, they are saving someone's life. Have students conduct online research to find out why it is so important: [www.nzblood.co.nz](http://www.nzblood.co.nz) > click on 'Donating' in the menu bar > click on 'Why I should donate blood'. Discuss these points:
  - *the only place that the gift of blood can come from*
  - *not only does it benefit recipients but how it benefits the givers*
  - *the percentage of people in New Zealand who donate blood*
  - *discover who needs the blood that is donated*
  - *why it is necessary to have regular donations of blood*
  - *the number of people who receive blood each year and how many donations are needed each week*
  - *the possible number of lives saved by each donation*
- From the 'Donating' menu, have students check out the 'Am I eligible' section and the 'Donation process'. Emphasise that giving blood is a nonthreatening straight-forward process.
- Print out the posters (Resources and links) to stimulate class discussion. Are there any facts that they find surprising, **eg**
  - *who receives the blood, % of blood used in your local area, weekly donations needed, small percentage of donors, ...*

## BLOOD DONORS SAVED MY LIFE

- Print out Geoffrey's Story from the 'Story Board' menu and use for shared reading. Focus student's attention on Geoffrey's comment 'Blood donors saved my life – if it wasn't for them, I wouldn't be alive.'
- Introduce the idea that blood donors are rather like super-heroes – they save lives. Have students discuss how people must feel by knowing that their blood has saved lives!
- Focus on Geoffrey's next statement: 'I want to make people more aware of my story so they know how important it is to donate blood.' Remind students that only 4-5% of New Zealanders donate blood. Why would people like Geoffrey want to make people aware of the importance of the gift of blood?
- If possible, invite a blood donor to talk to the class about the reasons he/she gives blood, the process of giving blood and how they feel about giving blood.

## WE NEED MORE SUPERHEROES!

- Did students know that they were one of the reasons the 'Slip, Slop, Slap and Cover' and the 'Make it Click' seatbelt campaigns were so successful because they helped get these important messages out to parents and families? Now they know about the importance of giving blood, their challenge is to brainstorm ways they can encourage 'eligible' people to become blood donors.

## CELEBRATING WORLD BLOOD DONOR DAY

- Suggest students use their ideas by running a 'Super Hero' day to celebrate World Blood Donor Day. Start by having students design colourful posters to say a 'huge thank you' to the super heroes who presently donate blood. Contact your nearest Donor Centre and ask to display the posters. Contact details at: [www.nzblood.co.nz](http://www.nzblood.co.nz) > **Where to Donate**
  - *all students dress as super heroes and design their own mask and costumes on a 'blood donors save lives' theme.*
  - *design, paint and display colourful posters that encourage people to donate blood*
  - *invite health professionals and representatives from your nearest blood centre to talk about the physical process of giving blood, how much is needed, what it is used for and the importance and benefits of being a blood donor*
  - *have students guide parents through the stories on the 'Story Board' section of [www.nzblood.co.nz](http://www.nzblood.co.nz)*
  - *invite local blood donors (including high school students) to share with the class the reasons why they donate blood.*
  - *use multi-media/data camera projector to play the video of the blood donation process found on Facebook at: [www.facebook.com/video/video.php?v=255524930576](https://www.facebook.com/video/video.php?v=255524930576)*
  - *prepare and display wall charts of all the information students have found about blood and keeping our heart and blood healthy. Encourage student personal presentations.*

## FURTHER DIRECTIONS

- Plan and carry out a 'Blood Super hero' march and/or display at a local supermarket or shopping mall. Design and distribute brochures encouraging people to donate blood.
- Run a **super heroes give blood** school-wide slogan competition.
- Invite a nutritionist and/or representatives from your Regional Sports Trust to talk about the role that healthy food and exercise plays in keeping our heart and blood healthy.

