



Teacher Notes: Science of Blood

Description

Discover the different blood types and their importance. Carry out tests on blood to determine what happens when different blood types are mixed. Select a compatible blood type for a person requiring a transfusion. Apply understandings about the genetics of blood types to work out the possible blood types of a child given the parents' blood types.

Key Learning Objectives

- Students explain that different people have different blood types.
- Students identify different blood types using blood type testing.
- Students describe the importance of knowing a person's blood type when receiving blood products through a transfusion.
- Students explain how a person's particular blood type is genetically based.
- Students identify ways that science is used responsibly in the community.

Educational Value

- Introduces different blood types
- Reinforces the concept of donating blood
- Illustrates the importance of knowing a person's blood type when receiving blood products
- Illustrates the use of antibody and antigen tests to identify a blood type.
- Illustrates how to work out the possible blood type of a child given the parents' blood types

Year Level

7 - 10

Topics

- Blood types
- Blood type testing
- Genetics of blood types

Learning Area

Science, Health and Physical Education, Civics and Citizenship, English, ICT

Strand

- Science/Living things
- Health and Physical Education/ Health knowledge and promotion
- Civics and Citizenship/ Citizenship in a democracy
- ICT/ Inquiring with ICT
- English/ Reading, viewing and interpreting information and argument texts



Australian Red Cross **BLOOD SERVICE**

Concept

- Science/Living things/Complex organisms depend on interacting body systems to meet their needs
- Health and Physical Education/ Promote the health of individuals and communities
- Civics and Citizenship/ Define, exercise and evaluate rights and responsibilities associated with being a young adult including the concept of working together for the common good
- ICT/ Develop new understandings through the use of ICT
- English/ Draw conclusions about the main idea presented in different formats

Skill

- Analysis
- Application
- Comprehension
- Interpretation
- Problem solving
- Knowledge

Student Activity

- Analysis
- Comprehension activity
- Interpreting data in tables
- Carrying out tests
- Interaction with digital media

Learning Design

- Personalised learning
- Inquiry-based learning
- Experiential learning
- Independent learning
- Visual learning

Keywords

Blood types, Antigens, Antibodies, Blood, Blood type testing, Coagulation, Genotypes, Allele

Resources

The Learning Federation digital learning objects:

- L1463 Forensic science: blood