366802

ABO & Rh Blood Typing Lab Activity

Aligned With All Published National Standards

ward's science

IMGN 250 8003

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* The Dimension I practices listed below are called out as **bold** words throughout the activity.

DIMENSION 1 Science and Engineering Practices

X	Asking questions (for science) and defining problems (for engineering)		Use mathematics and computational thinking
X	Developing and using models	X	Constructing explanations (for science) and designing solutions (for engineering)
X	Planning and carrying out investigations	X	Engaging in argument from evidence
X	Analyzing and interpreting data	X	Obtaining, evaluating, and communicating information

DIMENSION 2 Cross Cutting Concepts

X	Patterns		Energy and matter: Flows, cycles, and conservation
	Cause and effect: Mechanism and explanation	X	Structure and function
	Scale, proportion, and quantity		Stability and change
X	Systems and system models		

DIMENSION 3 Core Concepts

Discipline	Core Idea Focus
Life Science	LS1: From Molecules to Organisms: Structures and Processes
	LS3: Heredity: Inheritance and Variations of Traits

x Indicates standards covered in activity

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Middle School Standards Covered	High School Standards Covered
MS.LS1-2: Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function.	HS.LS1-2: Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.
	HS-LS3-1: Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.

(continued on next page)

standards/learning objectives

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Content Standards (K-12)			
X	Systems, order, and organization	X	Evolution and equilibrium
X	Evidence, models, and explanation	X	Form and Function
	Constancy, change, and measurement		

Life Science Standards Middle School		Life Science Standards High School	
X	Structure and Function in Living System	X	The Cell
X	Reproduction and Heredity	X	Molecular Basis of Heredity

X Indicates standards covered in activity

benchmarks for science literacy (AAAS, © 1993)

1. The Nature of Science	1B: Scientific Inquiry
5. The Living Environment	5A: Diversity of Life
	5B: Heredity
	5C: Cells
6. The Human Organism	6C: Basic Functions
11. Common Themes	11A: Systems

activity objectives:

- Define agglutinogen and agglutinin.
- Perform an actual blood typing procedure.
- Observe the antigen/antibody reaction in blood.
- Determine the ABO and Rh blood type of your own blood.
- Analyze class data to determine if it is representative of the human population.

time requirement:

- 30 minutes