

366804

Simulated Blood Typing “Whodunit” Lab Activity

Aligned with All Published National Standards



table of contents

overview and materials list	2
standards alignment	3
learning objectives	4
time requirement	4
safety precautions	5
vocabulary	6
background	7
pre-lab questions	10
pre-lab preparation	12
procedure	13
results and analysis	16
assessment	17
notes	21



Ward's in-house scientists are always on call to assist you with your questions. Our expert can provide personal solutions and product advice for your curriculum.

Email sciencehelp@vwr.com
or call 800-962-2660 to get started.

standards alignment

framework for K-12 science education © 2012

* 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
	X	Cause and effect: Mechanism and explanation		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 Properties		
		LS3: Heredity: Inheritance and Variation of Traits		

X Indicates standards covered in activity

next generation science standards © 2013

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

national science education standards © 1996

Content Standards (K-12)			
	Systems, order, and organization		Evolution and equilibrium
×	Evidence, models, and explanation		Form and Function
×	Constancy, change, and measurement		
Life Science Standards Middle School		Life Science Standards High School	
×	Structure and Function in Living Systems	×	The Cell

× Indicates standards covered in activity

benchmarks for science literacy (AAAS, © 1993)

1. The Nature of Science	1A: The Scientific World View
	1B: Scientific Inquiry
5. The Living Environment	5A: Diversity of Life
6. The Human Organism	6A: Human Identity
11. Common Themes	11B: Models

activity objectives:

- Assume the role of a forensics lab technician
- Examine suspected blood evidence found at a crime scene
- Confirm that the evidence is blood opposed to any other substance
- Perform the ABO/Rh procedure to determine the blood type
- Relate the evidence to four possible suspects

time requirement:

This activity will take approximately 30-45 minutes to complete.