

366812

Testing Familial Relationships Using Simulated Blood Lab Activity

Aligned with All Published National Standards



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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 Properties	
NGSS Standards ©2013	Middle School Standards Covered		High School Standards Covered	
	MS.LS1-2		HS.LS1-2	
			HS.LS3-2	
		HS.LS3-3		

national science education standards © 1996

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 Systems	X	The Cell
X	Reproduction and Heredity	X	Molecular Basis of Heredity

X Indicates standards covered in activity

learning objectives

benchmarks for science literacy (AAAS, © 1993)

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

activity objectives:

- Perform the ABO blood typing procedure.
- Determine the ABO blood types of two sets of parents and two children.
- Examine the genetic relationships possible between parents and children.
- Match the “mixed up” children with their proper parents.

time requirement:

30 minutes