

Science Sleuth	K-4	K-4	K-4	K-4	K-4	K-4	K-4	5-8	5-8	5-8	5-8	5-8	5-8	5-8
Activities	A	B	C	D	E	F	G	A	B	C	D	E	F	G
Session 1: Matter Mysteries														
Mystery Observations	X	X			X			X	X					
Mysterious Green Goo		X							X					
The Water Challenge		X							X					
Air Lift		X		X					X		X			
Marble Models		X							X					
Session 2: Crystal Quest														
Crystal Garden Preparation				X										
Sleuthing for Crystal Forms	X	X		X										
Crystal Snowflakes		X		X					X					
Crystal Kit		X		X					X					
Session 3: The Paper Process														
Paper Preparation		X		X	X	X			X					
Making Recycled Paper		X				X			X			X	X	
Session 4: Sleuthing for Simple Machines														
What is a Simple Machine?		X			X				X					
Invent a Rube Goldberg Device	X	X			X			X	X			X		
Searching for Simple Machines		X			X				X			X	X	X
Session 5: Noisy Explorations														
Noticing Noises		X							X					
Investigating Vibrations	X	X						X	X					
Communicating by “Phone”	X	X			X			X	X			X		
Making Music							X							X
Putting It Together					X							X		
Session 6: ChromaMystery														
Fingerprinting							X						X	X
Ink Sleuthing	X	X			X			X				X		
Missing Cookie Mystery						X								
Chromapies					X							X		

¹National Research Council. (1996). *National Science Education Standards*. Washington, DC: National Academy Press

A. Science as Inquiry

As a result of activities in grades K-4, all students should develop

- Abilities necessary to do scientific inquiry
- Understanding about scientific inquiry

B. Physical Science

As a result of the activities in grades K-4, all students should develop an understanding of

- Properties of objects and materials
- Position and motion of objects
- Light, heat, electricity, and magnetism

C. Life Science

As a result of activities in grades K-4, all students should develop understanding of

- The characteristics of organisms
- Life cycles of organisms
- Organisms and environments

D. Earth and Space Science

As a result of their activities in grades K-4, all students should develop an understanding of

- Properties of earth materials
- Objects in the sky
- Changes in earth and sky

E. Science and Technology

As a result of activities in grades K-4, all students should develop

- Abilities of technological design
- Understanding about science and technology
- Abilities to distinguish between natural objects and objects made by humans

F. Science in Personal and Social Perspectives

As a result of activities in grades K-4, all students should develop understanding of

- Personal health
- Characteristics and changes in populations
- Types of resources
- Changes in environments
- Science and technology in local challenges

G. History and Nature of Science

As a result of activities in grades K-4, all students should develop understanding of

- Science as a human endeavor

A. Science as Inquiry

As a result of activities in grades 5-8, all students should develop

- Abilities necessary to do scientific inquiry
- Understanding about scientific inquiry

B. Physical Science

As a result of their activities in grades 5-8, all students should develop an understanding of

- Properties and changes of properties in matter
- Motions and forces
- Transfer of energy

C. Life Science

As a result of their activities in grades 5-8, all students should develop understanding of

- Structure and function in living systems
- Reproduction and heredity
- Regulation and behavior
- Populations and ecosystems
- Diversity and adaptations of organisms

D. Earth and Space Science

As a result of their activities in grades 5-8, all students should develop an understanding of

- Structure of the earth system
- Earth's history
- Earth in the solar system

E. Science and Technology

As a result of activities in grades 5-8, all students should develop

- Abilities of technological design
- Understandings about science and technology

F. Science in Personal and Social Perspectives

As a result of activities in grades 5-8, all students should develop understanding of

- Personal health
- Populations, resources, and environments
- Natural hazards
- Risks and benefits
- Science and technology in society

G. History and Nature of Science

As a result of activities in grades 5-8, all students should develop understanding of

- Science as a human endeavor
- Nature of science
- History of science