

Name: \_\_\_\_\_ Date: \_\_\_\_\_

# The Scientific Method—Purpose

## Chapter 1

Scientists are problem solvers. They ask many questions about what they see going on in their world. They conduct scientific investigations to find the answers to these questions. Most investigations follow a general pattern.

### Choosing a Topic for Investigation

A good topic is one that can be tested with an experiment. It is important that the topic is not too general.

**Example:** Too General  
meal worms

Good Topic  
food meal worms eat



### Stating the Purpose

Scientists explain exactly what they want to learn from their investigation in the purpose. The purpose is written as a question, often called the “Big Question.” The purpose of an investigation includes three components. (1) It is clearly written. (2) It usually starts with the verb “does.” (3) It can be answered by measuring something.

**Example:** Topic  
plant growth rates  
fireflies’ flash rates  
paper airplanes’ design

Purpose (What do you want to learn about the topic?)  
Does fertilizer affect the growth rate of a plant?  
Does temperature affect the flash rate of fireflies?  
Does the design of a paper airplane affect its hang time?

### Test Yourself

- I. Decide which topics are good ideas and which are too general for scientific investigation. Record your answers below.

Topic	Too General /Good
1. best brand of batteries	
2. volcanoes around the world	
3. water conservation	
4. materials used as insulators	

- II. Practice writing a purpose for each topic. Record your answers below. Remember to start the purpose with the word “Does.”

Topic	Purpose
1. temperature and bread mold	
2. texture of paper towels	
3. colored light and plant growth	
4. light and the activity of meal worms	
5. rust and the strength of magnets	