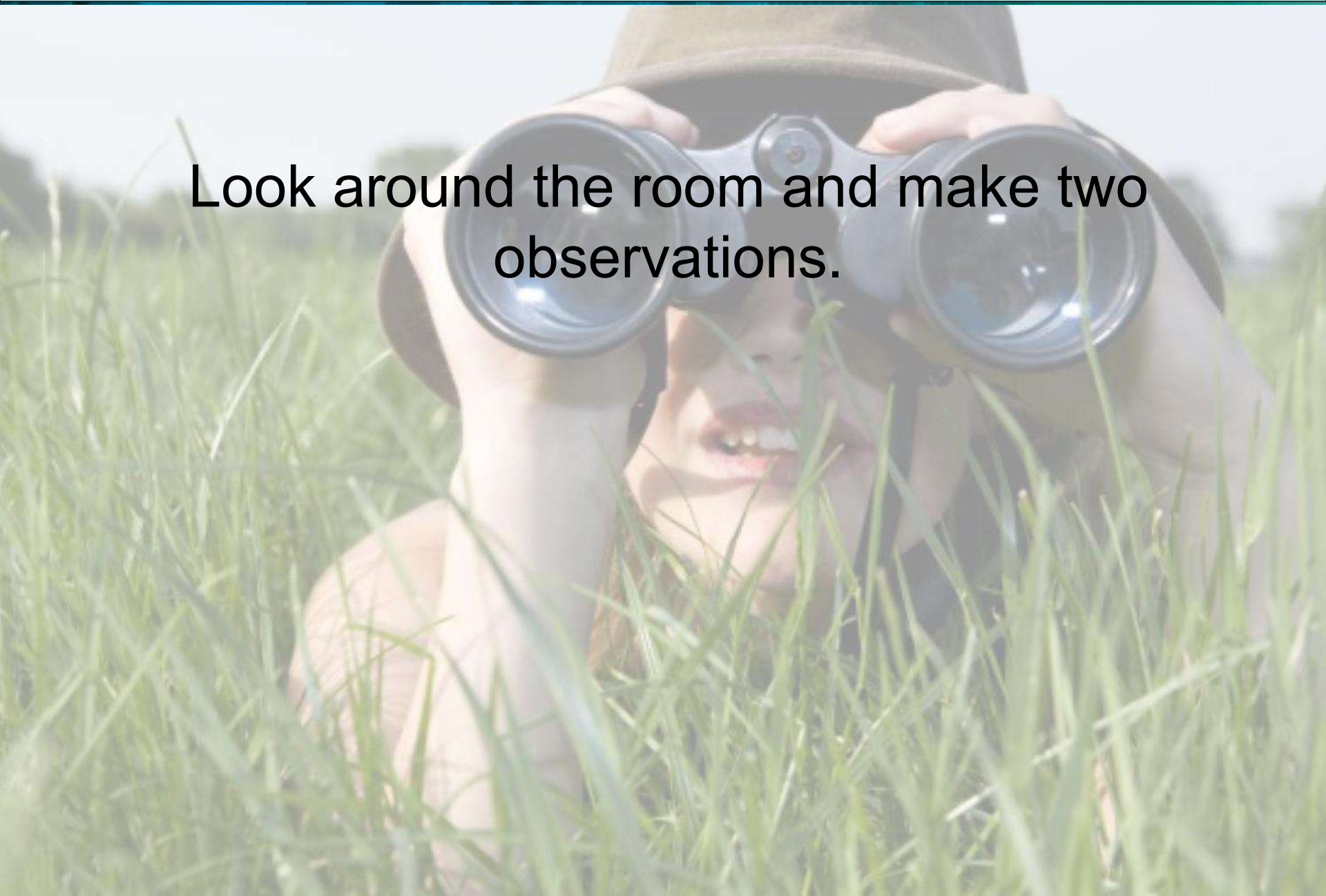
Bell work



Look around the room and make two observations.

1.3 Scientific Thinking and Processes

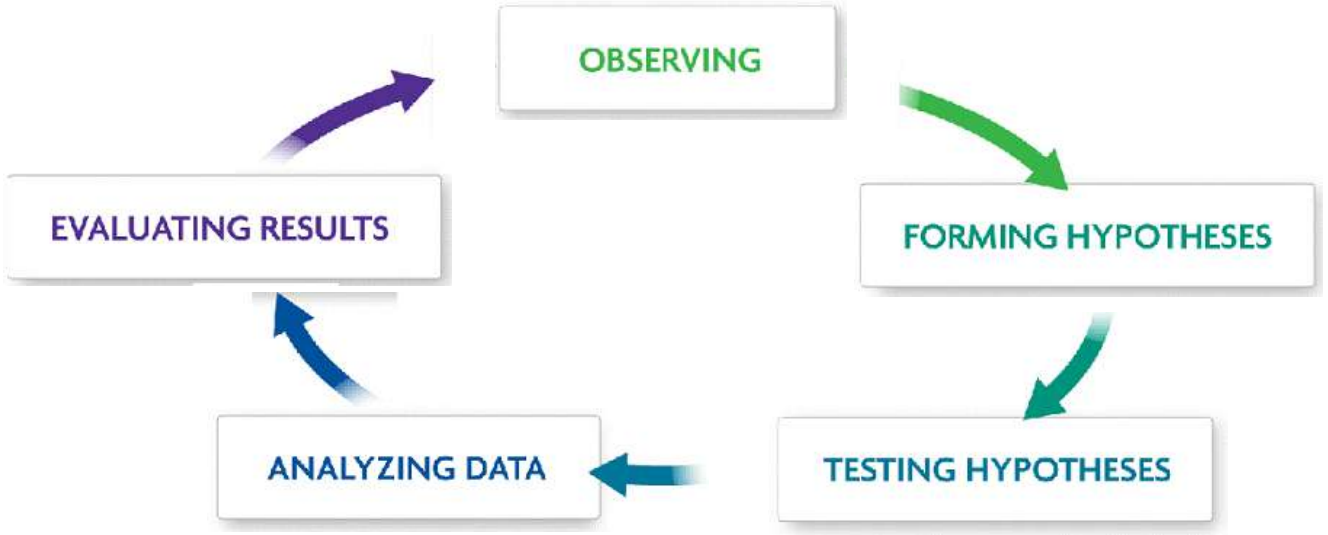
KEY CONCEPT

Science is a way of thinking, questioning, and gathering evidence.

1.3 Scientific Thinking and Processes

Scientific Process:

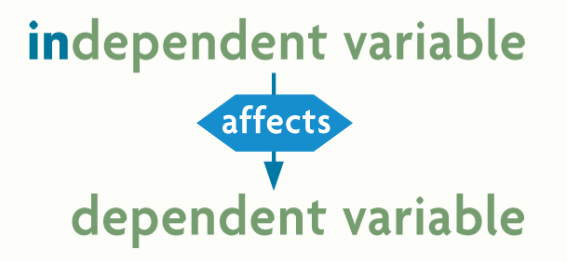
1. Scientists make observations.
2. Scientists record observations as data.
3. Scientists form a hypothesis – an educated guess to explain data
4. Scientists test their hypotheses in an experiment to see if they were right



1.3 Scientific Thinking and Processes

- Parts of an experiment:
  - Independent variables are changed by the scientist
  - Dependent variables are measured by the scientist
  - Constants are conditions the scientist keeps the same.

  - Data are recorded observations.



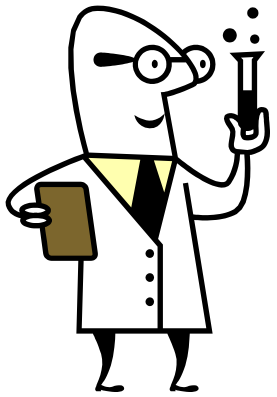
1.3 Scientific Thinking and Processes

A theory explains all current observations.

- A theory is supported by a wide range of scientific evidence.
- Theories can change based on new evidence.

Examples of scientific theories:

- Theory of Gravity
- Theory of Evolution
- Cell Theory



Closing

To test the affect of sunlight on plant growth, Mr. Spalding placed one tomato plant in a sunny spot and another tomato plant in the dark. He gave each plant the same soil and amount of water. After one week, he measured the height of each plant.

For the experiment above, identify the:

1. Constants
2. Independent variable
3. Dependent variable