Science Skills -8
Identifying Variables

Whatever can change or vary in an experiment is called a variable. When a scientist designs an investigation one of the first tasks is to identify the variables in question. **Variables** are factors or conditions that can change in an event or system.

Directions: Identify the factors that could be changed in the experiments below.

1. After studying about recycling, members of Juan's 8th period class investigated the effect of various recycled products on plant growth. Juan's lab group compared the effect of different aged grass compost on bean plants.

What could be changed?

A. _____

B. _____

2. In chemistry class, Alonso determined the effectiveness of various metals in releasing hydrogen gas from hydrochloric acid. Several weeks later, Alonso read that a utilities company was burying lead next to iron pipes to prevent rusting. Alonso thought that less rusting would occur with the more active metals.

What could be changed?

A. _____

B. _____

3. Yesinia read that certain perfume ingredients, called esters, would agitate bees. Because perfume formulas are secret, she decided to determine whether the unknown Ester X was present in four different perfumes by observing the bees' behavior.

What could be changed?

A. _____

B. _____

4. Sarah observed that different kinds and amounts of fossils were present in a cliff behind her house. She wondered if changes in fossil content occurred from the top to the bottom of the cliff.

What could be changed?

A. _____

B. _____

5. Juanita read that *Aloe Vera* promoted healing of burned tissue. She decided to investigate the effect of varying amounts of *Aloe Vera* on the regeneration of a flatworm called a planaria.

What could be changed?

A. _____

B. _____

6. After observing the bayou by his house collapsing during a flood, Pablo wanted to find out if the steepness of slope had any effect on the amount of erosion.

What could be changed?

A. _____

B. _____

7. Julia really disliked having unpopped kernels of popcorn in her bag of microwave popcorn. She wondered which brand of popcorn had fewer unpopped kernels?

What could be changed?

A. _____

B. _____