Variables

The variables are the factors involved in an experiment or investigation. Variables are specific and measurable, such as, height, weight, mass, volume, distance etc.

Variable	Are these variables suitable for a scientific investigation? If not, why not? If yes, what measuring equipment is needed?
1. length of someone's index finger	YES/NO
2. whether or not someone can roll their tongue	YES/NO
3. thoughts	YES/NO
4. room temperature	YES/NO
5. rainfall	YES/NO
6. self-confidence	YES/NO
7. types and number of insects found in an area	YES/NO
8. wind speed	YES/NO
9. how soft an animal's fur feels	YES/NO
10. strength of an earth tremor	YES/NO

There are three kinds of variables: independent, dependent and controlled

The independent variable is what you change (the cause of a change).
The dependent variable is what you observe (the effect of the change).
The controlled variable is what you keep the same.

Example:
Aim: To observe how long a plant it takes for a plant to die without water
independent variable - amount of water per day
dependent variable - how long it takes for the plant to go brown and shrivel
controlled variables - type of plant, amount of soil, container, hours of sunshine per day

What are the variables for these investigation?

1. Aim: To measure the effect of height of ball drop on height of ball bounce

independent variable _____
_____
dependent variable _____
_____
controlled variables _____
_____
_____

2. Aim: To find out if a teaspoon of rose fertiliser doubles the growth rate of a rose bush

independent variable _____
_____
dependent variable _____
_____
controlled variables _____
_____
_____