

Name: _____

Date: _____

7th Grade Life Science

The table below shows the plans for an experiment in which bees will be observed visiting flowers.

Group	Type of Bee	Time of Day	Type of Plant	Flower Color
1	Honeybee	9:00 am - 10:00 am	Portland Rose	Red
2	Honeybee	9:00 am - 10:00 am	Portland Rose	Yellow
3	Honeybee	9:00 am - 10:00 am	Portland Rose	White
4	Honeybee	9:00 am - 10:00 am	Portland Rose	Pink

- Which factor is the Independent Variable in this experiment?
 - the type of bee
 - the time of day
 - the type of plant
 - the color of the flowers
- Which of the following is the best reason why the Portland rose plant is included in all the groups to be studied?
 - The type of plant is a control variable; any type of flowering plant could be used if all plants were of the same type.
 - The experiment will test whether bees prefer the Portland rose over other flowers
 - An experiment should always have more than one variable.
 - The Portland rose is a very common plant.
- Which of the following ideas could be tested with this experiment?
 - Honeybees prefer to visit rose plants
 - Honeybees prefer to visit red flowers
 - Honeybees prefer to visit flowers in the morning
 - Honeybees prefer to visit Portland rose flowers between 9 and 10 am.
- In a controlled experiment,
 - a control group is compared with one or more experimental groups.
 - there are at least two variables
 - all factors (variables) should be different
 - a variable is not needed