

INQUIRY PRACTICE PROBLEMS

Do the following for each testable question:

- Underline the independent variable (manipulated variable / cause).
- Circle the dependent variable (responding variable / effect).
- For each testable question, write a prediction in the proper (if... then...) format.
- Identify important controls (things that shouldn't change) if you were to conduct the investigation.

1. What effect does the amount of sunlight have on the growth of Kentucky bluegrass?

Your hypothesis / prediction:

If _____ is related to _____
(independent variable) (dependent variable)

then _____
(explain how a change in the independent [manipulated] variable will affect the dependent [responding] variable)

Controls:

2. What effect does the amount of sunlight have number of earthworms found in soil?

Your hypothesis / prediction:

If _____ is related to _____
(independent variable) (dependent variable)

then _____
(explain how a change in the independent [manipulated] variable will affect the dependent [responding] variable)

Controls:

3. How does the depth at which you plant daffodil bulbs affect how fast they grow?

Your hypothesis / prediction:

Controls:

4. Does the amount of water held by different types of soil affect the rate at which those soils erode?

Your hypothesis / prediction:

Controls:

5. Determine if the amount of water runoff from an area impacts the water quality of the pond or stream that it enters.

Your hypothesis / prediction:

Controls:

6. What effect does the rate at which temperature changes have on the probability of precipitation (rain, snow, sleet, etc.)

Your hypothesis / prediction:

Controls:

7. How does the altitude (height of the sun in the sky) affect the season we experience here on Earth.

Your hypothesis / prediction:

Controls:

8. Does the amount of water that a plant receives affect the growth of that plant?

Your hypothesis / prediction:

Controls:

9. What effect does the amount of clay in a sample of soil have on the ability of that soil to absorb water?

Your hypothesis / prediction:

Controls:

10. Determine the effect of text-messaging on the incidence (how often something occurs) of RSI (repetitive stress injury)?

Your hypothesis / prediction:

Controls:
