

Inquiry Science: Plant Investigation

Name _____

Date _____

Brainstorming

What do plants need to survive?

What is the best way to care for plants so they survive?

List all the things that you could measure about how a plant grows.

List all the things that you could change or vary about how seeds are planted, or how plants are cared for.

Choosing Variables

Control Seeds: Describe how you will plant and care for your seeds so they have everything they need to grow into healthy plants.

Manipulated (changed) Variable: Choose ONE thing you will change about how you will plant or care for your seeds.

Test Seeds: This is the plant (or plants) that you will grow with only ONE thing changed. Describe how you will plant and care for your seeds so that only one thing is changed.

Choosing Variables

(Continued)

Responding (measured) Variable: What will you measure so you can tell what effect the manipulated variable has on the way plants grow?

Controlled (kept the same) Variables: List everything that will be the same about your control seeds and your test seeds.

Asking a Question

The Question you are asking:

When I change _____,
(Manipulated Variable)

what will I measure to tell how the seeds/plants responded?

(Responding Variable)

Designing the Investigation

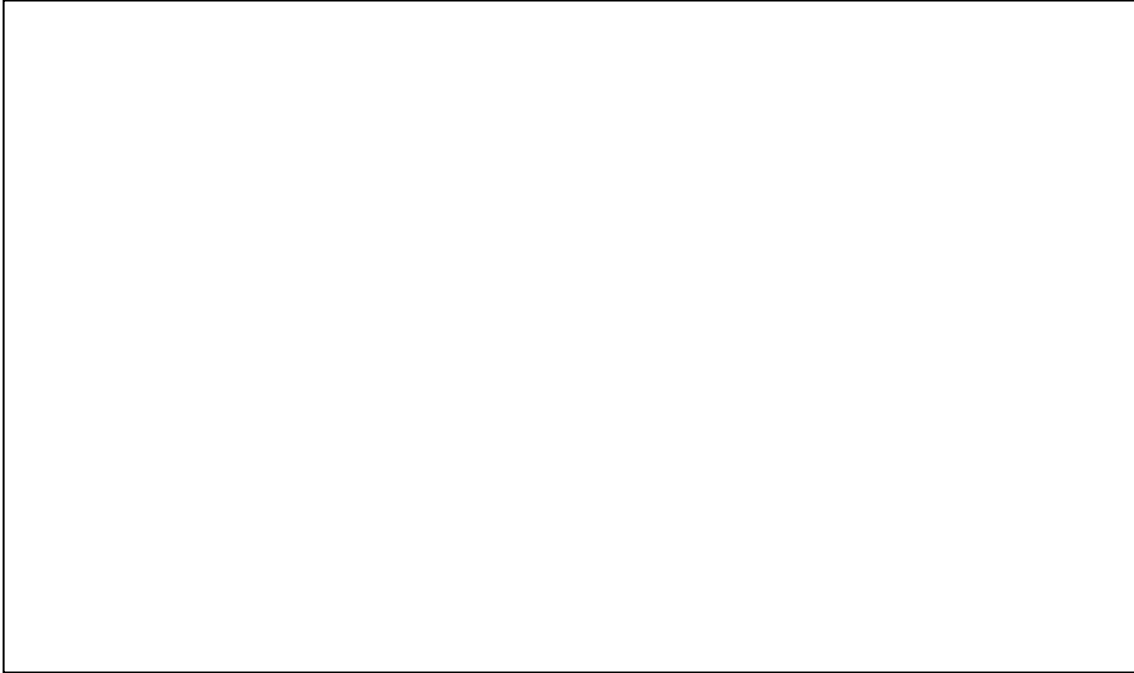
Prediction: (What do you THINK will happen?)

Materials: (What will you need to do this investigation?)

Procedure: (How are you going to do it? Be as detailed as possible)

Setting Up the Investigation

Draw a picture of your control seeds/plants:



Draw a picture of your test seeds/plants:

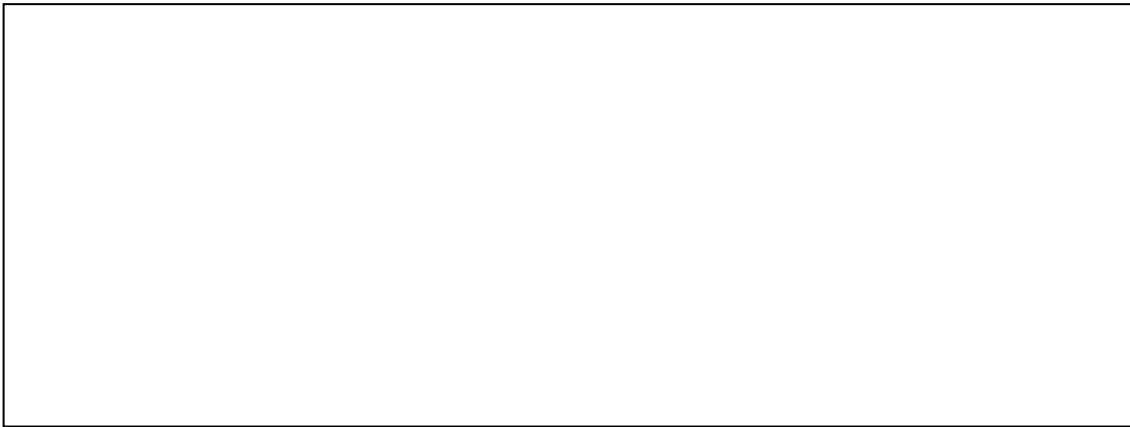


Results

What you changed _____
(Manipulated Variable)

What you measured _____
(Responding Variable)

Draw a picture of the control seeds/plants at the end of your investigation:



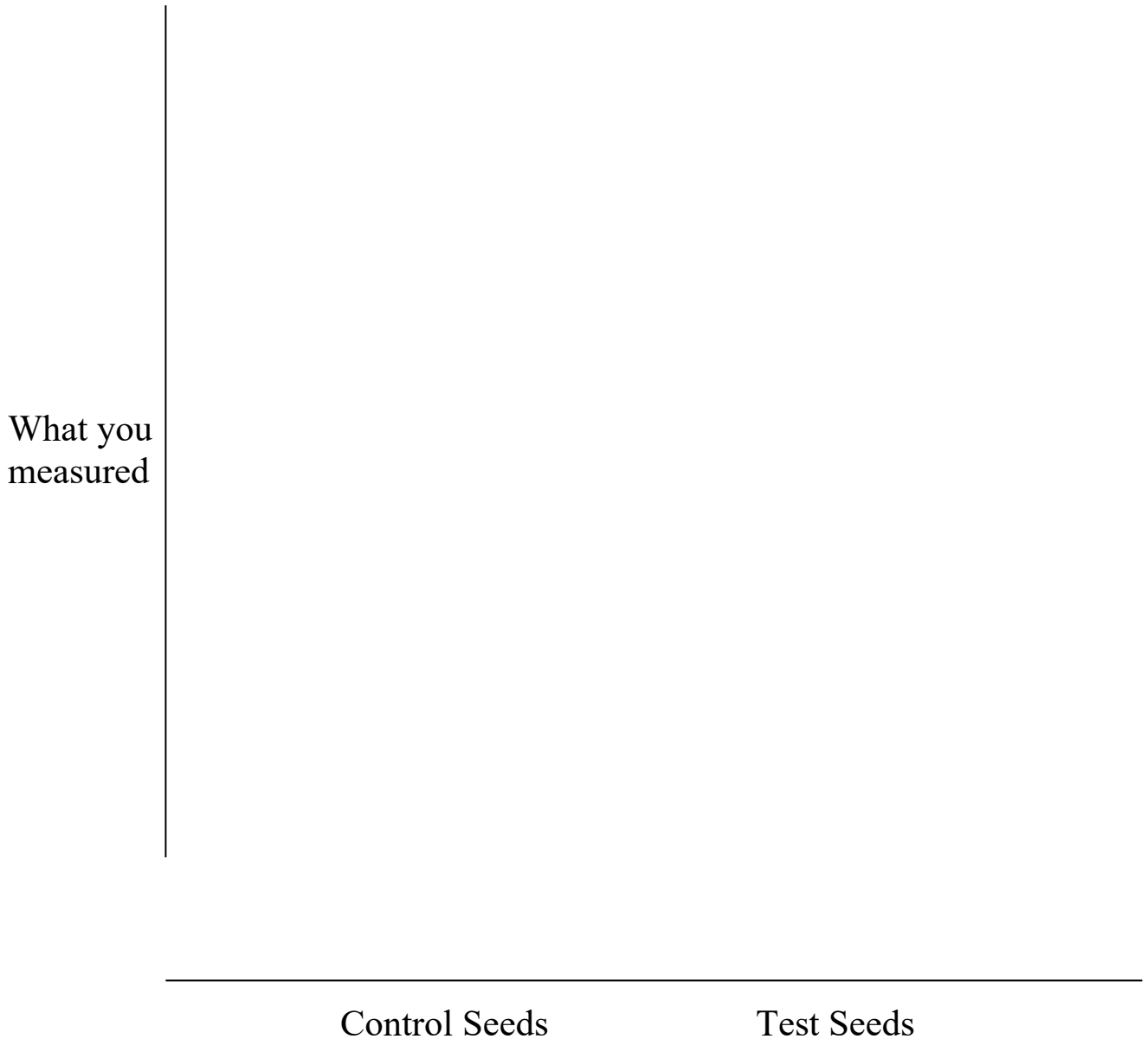
Draw a picture of the test seeds/plants at the end of your investigation:



Results

Write a sentence summarizing the difference between the test and the control seeds.

Graph of your results. Please label.



Write a sentence explaining your graph.

Finding Patterns in Results

When you changed _____
(Manipulated Variable)

How did your test seeds/ plants respond? _____
(Responding Variable)

Where there any problems or surprises with your investigation?
Explain.

Can you explain your results?

Do you have any further questions that would be good
investigations?

Vocabulary

Control seeds: Seeds you grow with everything they need to be healthy.

Test seeds: Seeds you grow with ONE thing changed.

Manipulated variable: The ONE thing you changed.

Controlled variables: All the conditions you kept the SAME in both bags.

Responding variable: The response of the seeds/plants. The thing you measured.