





MATERIALS PAGE

You will only have access to the following materials.

- 1) For each bolded words and underline if it is a control and circle if it is a changing variable
Ex Control: Bottle Size, Ex Changing Variable: Plant Type
- 2) For variables that are controls, choose 1 value.
- 3) For the variable that is the changing variable, choose 4 values and write the trial letter (A, B, C, D) next to each value. Ex: Plant 1 1 A

Bottle Size: You may only have 4 bottles. Put the number of bottles you would like next to each bottle size. All numbers should add up to four.

| <i>Bottle Sizes</i> | <i>Number of Bottles</i> |
|---------------------|--------------------------|
| Small | |
| Medium (Max 1) | |
| Large (Max 1) | |
| XLarge (Max 1) | |

Plant Type: Put the number of plants you would like next to each plant type.

Check here if no plants will be in your bottles

| <i>Aquatic Plants</i> | <i>Number of Plants</i> | <i>Non-Aquatic Plants</i> | <i>Number of Plants</i> |
|---|-------------------------|---------------------------|-------------------------|
| Plant 1 (original) | | Tree Leaf 1 | |
| Plant 2 | | Tree Leaf 2 | |
| Plant 3 | | Flower 1 (Max 1) | |
| Plant 4 (Max 1) <small>*You may only select if you are receiving the other 3 plants*</small> | | Flower 2 (Max 1) | |

Light Amount: Mark the boxes of the light amount(s) you will use.

- | | | |
|---|----------------------------------|---|
| <input type="checkbox"/> Level 5 (Full Light) | <input type="checkbox"/> Level 4 | <input type="checkbox"/> Level 3 |
| <input type="checkbox"/> Level 2 | <input type="checkbox"/> Level 1 | <input type="checkbox"/> Level 0 (No Light) |

Animal Type: You may have up to 4 animals.

Check here if no animals will be in your bottles

| <i>Animal Types</i> | <i>Number of Animals</i> |
|---------------------|--------------------------|
| Snail | |
| Fish | |
| Shrimp | |
| Frog | |

Aquatic Plants



Aquatic Plant ___ Aquatic Plant ___ Aquatic Plant ___ Aquatic Plant ___

Non Aquatic Plants



4 Tree Leaf 1

Tree Leaf 2

Flower 1 (colors vary)

Flower 2

QUESTION

If we change the ball temperature what will happen to the height the ball bounces?

EXPERIMENTAL SET-UP

| Changing Variable: | Trial A | Trial B | Trial C | Trial D |
|---------------------------|---------|---------|---------|---------|
| Ball Temperature: | 30 °C | 40 °C | 50 °C | 60 °C |

Controls (variables you will hold constant):

| | |
|------------------------|----------------------------|
| Ball Material / Rubber | Ball Circumference / 88 cm |
| Release Height / 3 m | Ground Type / Cement |
| Ball Mass / 623 g | Ball Release / Drop |

NOTES ON PRESENTATIONS

What variables affect the color of the solution?

Subgroup 1

| | | | | |
|------------------------|--|--|--|--|
| Changing Variable: | | | | |
| Color of the Solution: | | | | |

Summary: _____

Subgroup 2

| | | | | |
|------------------------|--|--|--|--|
| Changing Variable: | | | | |
| Color of the Solution: | | | | |

Summary: _____

Subgroup 3

| | | | | |
|------------------------|--|--|--|--|
| Changing Variable: | | | | |
| Color of the Solution: | | | | |

Summary: _____

Subgroup 4

| | | | | |
|------------------------|--|--|--|--|
| Changing Variable: | | | | |
| Color of the Solution: | | | | |

Summary: _____

Subgroup 5

| | | | | |
|------------------------|--|--|--|--|
| Changing Variable: | | | | |
| Color of the Solution: | | | | |

Summary: _____

Subgroup 6

| | | | | |
|------------------------|--|--|--|--|
| Changing Variable: | | | | |
| Color of the Solution: | | | | |

Summary: _____
