

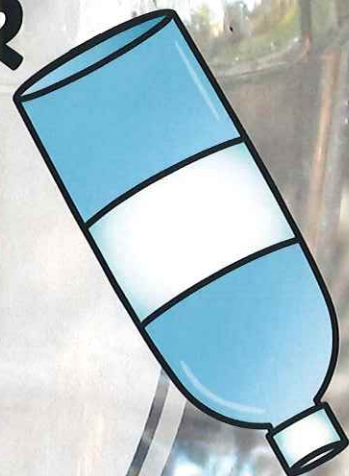


END OF THE YEAR

STEM

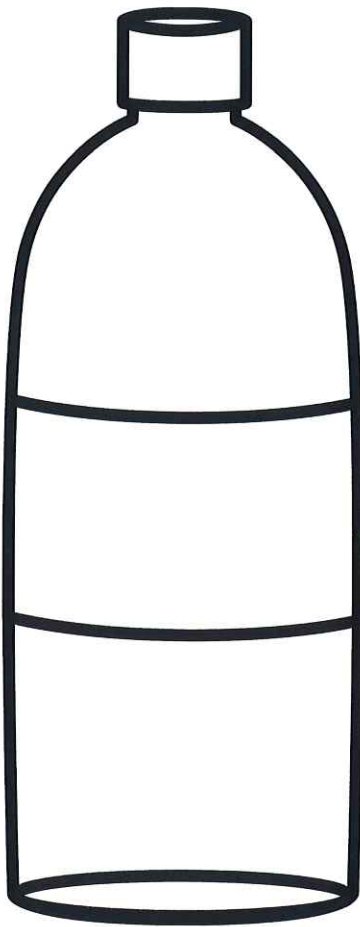
WATER
BOTTLE FLIP

Carly and Adam

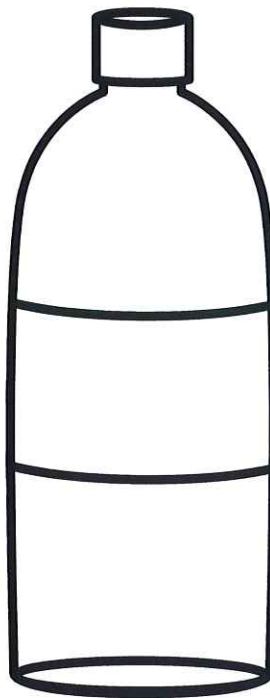


Dear Students,

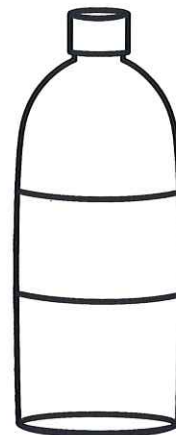
Your water bottle flipping challenge is to test three different sizes of water bottles to see which one lands vertically the most times after being flipped in the air. Before testing you will make a prediction about which water bottle is the most effective for water bottle flipping (small, medium, or large). You will then test each water bottle by flipping it in the air at least 20 times and recording how it lands.



Large



Medium



Small

Water Bottle Flipping: Investigation Questions

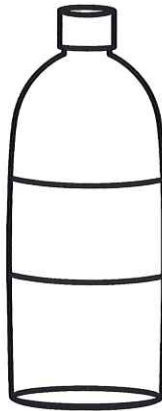
Choose one of the following questions to investigate or create your own question.

- What size bottle is the best for bottle flipping (small, medium, or large)?
- What style of bottle is best for flipping (curved in the middle or straight sides)?
- What water level is best for water bottle flipping?

- _____

Name: _____

MY PREDICTION



Large

Medium

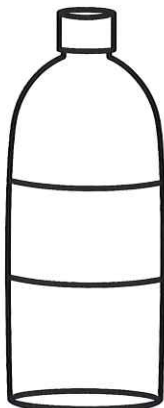
Small

The water bottle that will land vertical the most times is _____.

I think this because _____

Name: _____

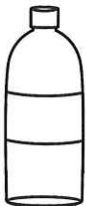
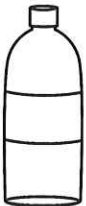
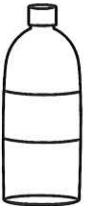
MY RECORDING SHEET



Large

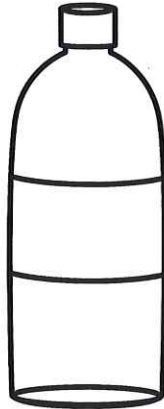
Medium

Small

Bottle	Vertical Landing	Horizontal Landing
 Large		
 Medium		
 Small		

Name: _____

MY RESULTS



Large

Medium

Small

The water bottle that landed vertical the most times was _____.

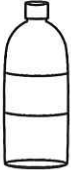
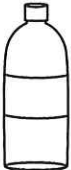
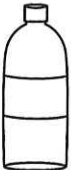
My prediction was right wrong.

Name: _____

Investigation Question: What size bottle is the best for bottle flipping (small, medium, or large)?

My Prediction: _____

My Data:

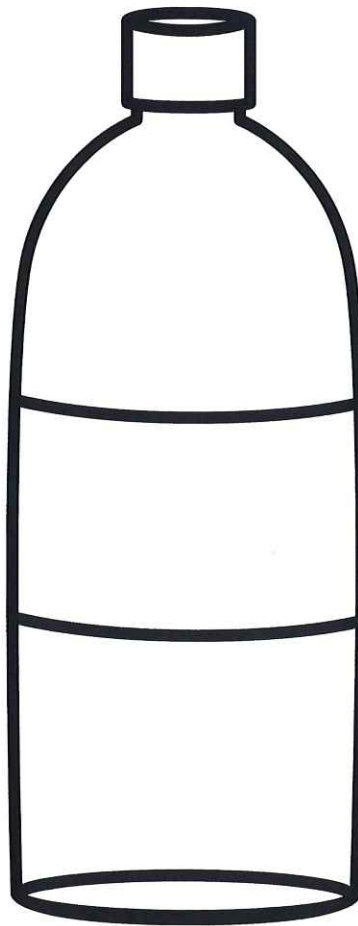
Bottle	Vertical Landing	Horizontal Landing
 Large		
 Medium		
 Small		

My Results: _____

Dear Students,

Your water bottle flipping challenge is to test two different styles of water bottles to see which one lands vertically the most times after being flipped in the air. Before testing you will make a prediction about which water bottle is the most effective for water bottle flipping (curved sides or straight). You will then test each water bottle by flipping it in the air at least 20 times and recording how it lands.

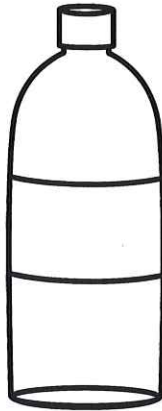
**Curved
Sides**



**Straight
Sides**

Name: _____

MY PREDICTION



Curved

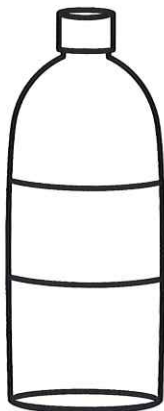
Straight

The water bottle that will land vertical the most times is _____.

I think this because _____

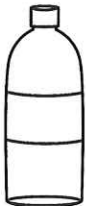
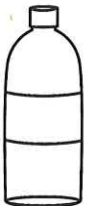
Name: _____

MY RECORDING SHEET



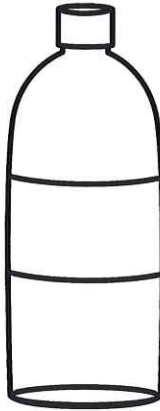
Curved

Straight

Bottle	Vertical Landing	Horizontal Landing
 Curved		
 Straight		

Name: _____

MY RESULTS



Curved

Straight

The water bottle that landed vertical the most times was _____.

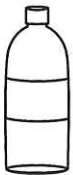
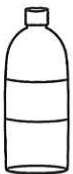
My prediction was right wrong.

Name: _____

Investigation Question: What style of bottle is best for flipping (curved in the middle or straight sides)?

My Prediction: _____

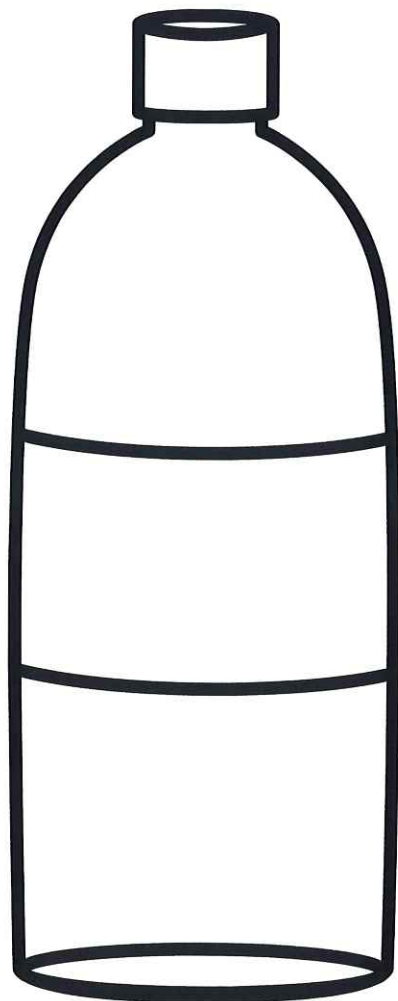
My Data:

Bottle	Vertical Landing	Horizontal Landing
 Curved		
 Straight		

My Results: _____

Dear Students,

Your water bottle flipping challenge is to test four different levels of water to see which one lands vertically the most times after being flipped in the air. First you will test your water bottle full of water. Then you will test it again at $\frac{2}{3}$ full, $\frac{1}{2}$ full, and $\frac{1}{3}$ full. Before testing you will make a prediction about which water level is the most effective for water bottle flipping. You will then test each water level by flipping the bottle in the air at least 20 times and recording how it lands.



Full

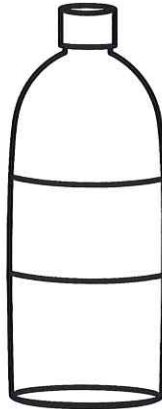
$\frac{2}{3}$ Full

$\frac{1}{2}$ Full

$\frac{1}{3}$ Full

Name: _____

MY PREDICTION



Full

$\frac{2}{3}$ Full

$\frac{1}{2}$ Full

$\frac{1}{3}$ Full

The water bottle that will land vertical the most times is _____.

I think this because _____

Name: _____

MY RECORDING SHEET

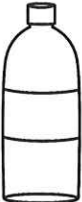
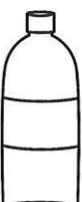
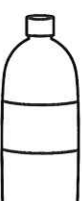


Full

2/3 Full

1/2 Full

1/3 Full

Bottle	Vertical Landing	Horizontal Landing
 Full		
 2/3 Full		
 1/2 Full		
 1/3 Full		

Name: _____

MY RESULTS



Full

$\frac{2}{3}$ Full

$\frac{1}{2}$ Full

$\frac{1}{3}$ Full

The water bottle that landed vertical the most times was _____.

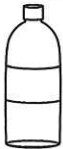
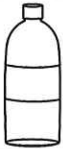
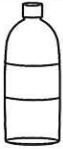
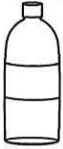
My prediction was right wrong.

Name: _____

Investigation Question: What water level is best for water bottle flipping?

My Prediction: _____

My Data:

Bottle	Vertical Landing	Horizontal Landing
 Full		
 2/3 Full		
 1/2 Full		
 1/3 Full		

My Results: _____

