pendulum investigation

Materials	What they do
string paper clip	make a pendulum
pennies	add weight to pendulum
pencil	hold pendulum off of table
meter stick	measure distance
timer	measure time
tape	hold pencil/pendulum

things to change	things to measure
the length of the string	how many seconds the pendulum swings
the type of string	how many swings the pendulum makes
height the pendulum drops from	Had to combine due to time required:
the weight of the pendulum (number of pennies)	how many swings the pendulum makes in 30 seconds
force put into pendulum	

pendulum investigation

Name sample/height Class_____

Question: How does changing the height the pendulum drops from

affect how many swings the pendulum make in 30 seconds?

Variables:

Independent Variable (changed): height the pendulum drops from

Dependent Variable (measured): how many swings the pendulum make in 30 seconds

Constants (keep the same):

the type of string

force put into pendulum

the length of the string

the weight of the pendulum

Hypothesis: If I drop the pendulum from higher (72 cm)

then the pendulum will make more swings in 30 seconds.

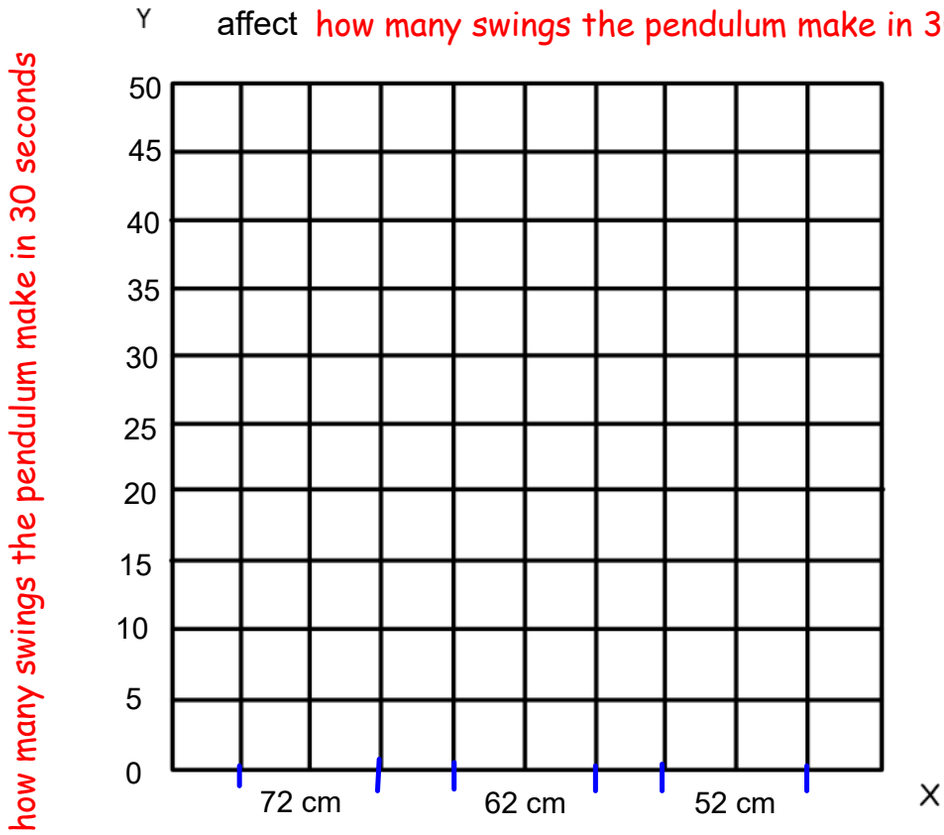
Data Table: how many swings the pendulum make in 30 seconds

height the pendulum drops from	trial 1	trial 2	trial 3	total	average
72 cm					
62 cm					
52 cm					

How does changing the height the pendulum drops from

Construct a bar graph using your data:

affect how many swings the pendulum make in 30 seconds



the height the pendulum drops from

Conclusion: Use your data to answer your experimental question.

My results show that using the _____

pendulum investigation

Name sample/weight Class_____

Question: How does changing the weight of the pendulum

affect how many swings the pendulum make in 30 seconds?

Variables:

Independent Variable (changed): the weight of the pendulum

Dependent Variable (measured): how many swings the pendulum make in 30 seconds

Constants (keep the same):

the type of string

force put into pendulum

the length of the string

height the pendulum drops from

Hypothesis: If the weight of the pendulum is more (3 pennies)

then the pendulum will make more swings in 30 seconds.

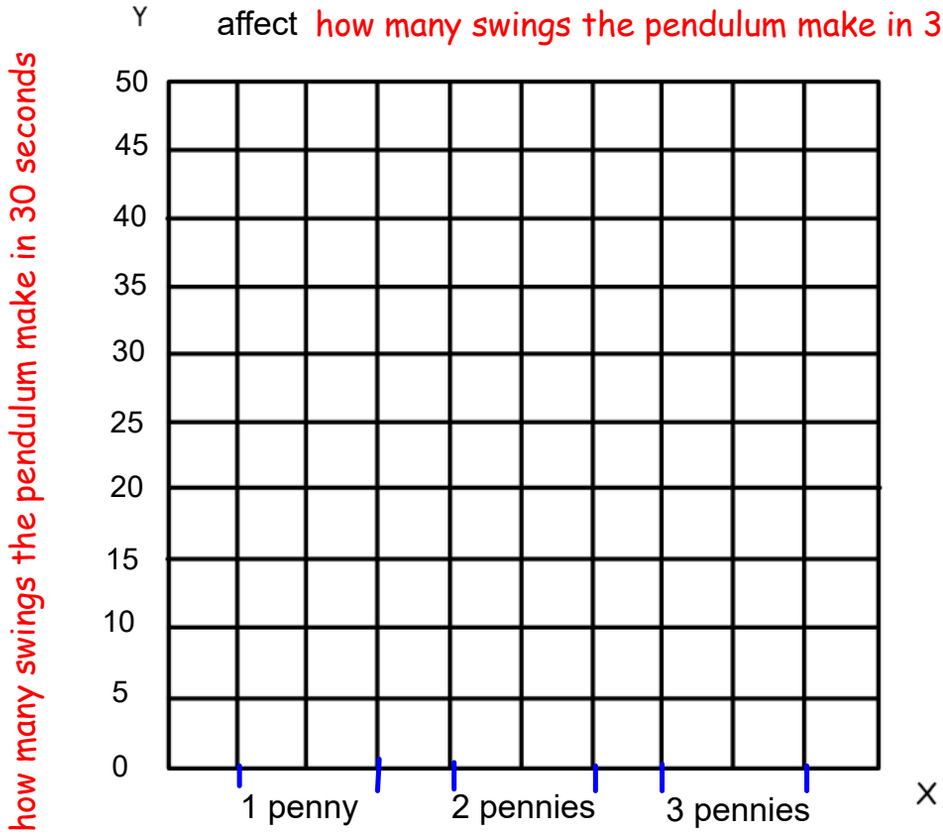
Data Table:

the weight of the pendulum	how many swings the pendulum make in 30 seconds				
	trial 1	trial 2	trial 3	total	average
1 penny					
2 pennies					
3 pennies					

How does changing the weight of the pendulum

Construct a bar graph using your data:

affect how many swings the pendulum make in 30 seconds



the weight of the pendulum

Conclusion: Use your data to answer your experimental question.

My results show that changing the weight of the pendulum

pendulum investigation

Name sample: length Class_____

Question: How does changing the length of the string

affect how many swings the pendulum make in 30 seconds ?

Variables:

Independent Variable (changed): the length of the string

Dependent Variable (measured): how many swings the pendulum make in 30 seconds

Constants (keep the same):

the type of string

force put into pendulum

weight of the pendulum

height the pendulum drops from

Hypothesis: If I use the 60 cm string

then the pendulum will make more swings in 30 seconds.

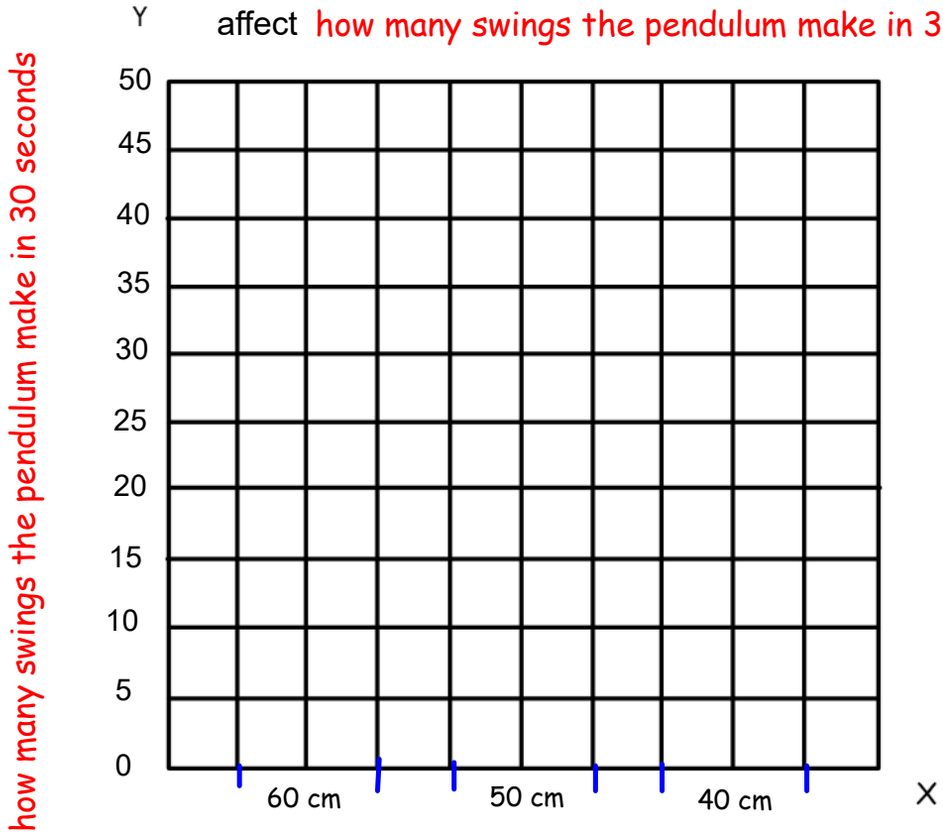
Data Table:

the length of the string	how many swings the pendulum make in 30 seconds				
	trial 1	trial 2	trial 3	total	average
60 cm					
50 cm					
40 cm					

How does changing the length of the string

Construct a bar graph using your data:

affect how many swings the pendulum make in 30 seconds



the length of the string

Conclusion: Use your data to answer your experimental question.

My results show that using the _____

cause the pendulum to swing more swings in 30 seconds.

60 cm = _____ swings

50 cm = _____ swings

40 cm = _____ swings