

Marbles In Motion



Linear Motion is when a marble is moving forward in a straight line.

List three things in your town that move in a straight line:

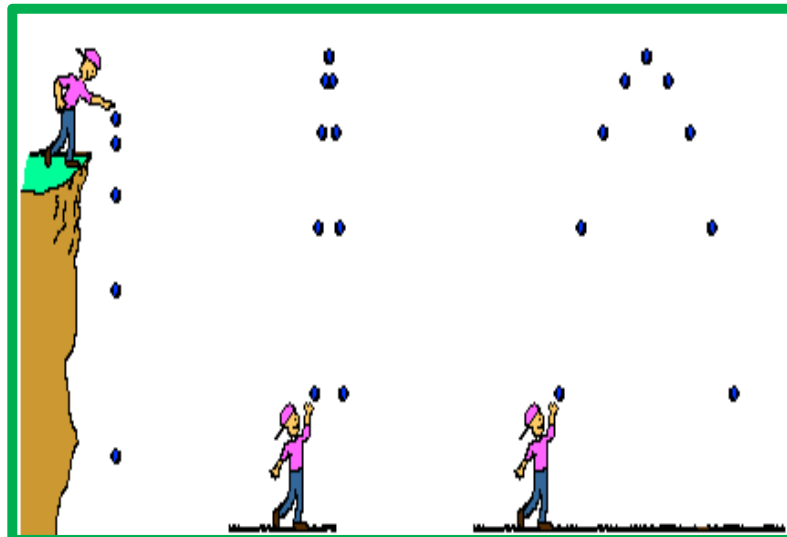
1. _____
2. _____
3. _____



Circular Motion is when a marble is moving in a curved path.

List three things in your house that move in a circle:

1. _____
2. _____
3. _____



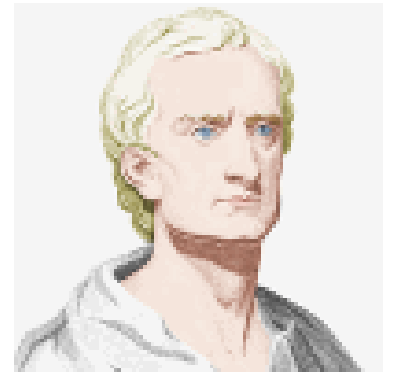
Vertical Motion is when a marble is moving downward.

List three things in Kansas City that move down:

1. _____
2. _____
3. _____

Isaac Newton The Man

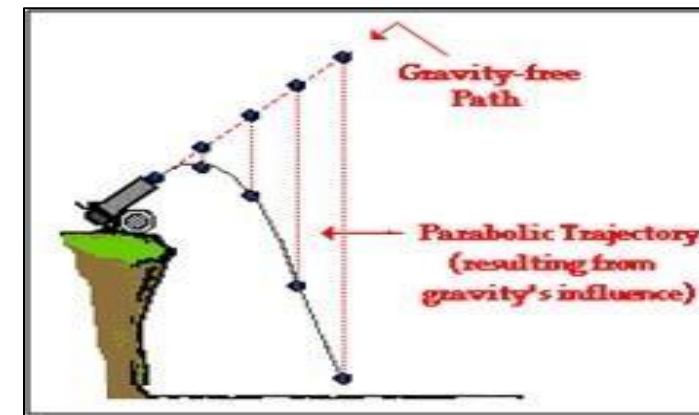
Isaac Newton was born in England on Christmas Day 1642. He is one of the greatest scientists and inventor who ever lived. Isaac changed the way sciences and math are studied today. He invented a telescope that astronomers still use today. He is best known for figuring out how Gravity works. So, what made *Isaac* so smart?



#1. Isaac made models that worked.

As a child Isaac would watch how things worked and build his own model. He made a machine that would grind corn powered by wind. He made a clock that was powered by water. He made a kite that would carry a lit candle but it scared everyone in town when he flew it over his village. Everyone thought it was something from outer space. Making models helped him test his ideas to see if they worked.

#2. Issacs recorded the results of his tests to prove his ideas.



For many years people doubted Isaac's new ideas, but he stayed with it, testing his ideas, measuring the results, and writing down what happened. In college Isaac started out cleaned the blackboards and carried older student's books.

But when the class found out what he was thinking he became the head of the class. Isaac would prove his new ideas were right by taking measurements and keeping records.

#3. Issacs kept 1000's of pages of notes and drawing.

Isaac would think about a problem for weeks, months, even years. He would make sketches of his ideas and write down his thoughts to help him figure out new ideas.

Isaac's notebooks contain over 4,000 pages of notes and drawings. They would fill at least 130 books.

A book he wrote titled, "Principia" contains many of his ideas from his notebooks. It has been called the greatest science and math book ever written.

