

Scientific method stick

I. Introduction

The problem that the scientific method stick was made to give is to solve how it works. This problem needs to be solved because the school system has drilled in a way of thinking that does not let students think. Only giving the students the answers and not allowing them to think, to find the answers. By doing this the school system is doing the exact opposite of what it should be doing, they are giving us a disadvantage for the rest of our life. The scientific method stick fixes this problem by making students think and make models of what they think makes the stick work, without opening it. Instead models were made as they used logic and wits to figure it out. The first thing that was done to do this is to find out what happened when the strings were individually pulled slowly.

II. Related Research

The scientific method is a series of step taken to answer question one has about the world. The scientific method have usually 6 parts: 1.State the problem 2.Observe and do background research 3. State a hypothesis 4.Test your hypothesis with an experiment 5. Analyze your data 6. Draw a conclusion.

A model is an idea that describe the natural world. Models can only approximate the truth, there is no perfect model because there is never a 100 percent way of knowing something is true or not.

A theory is an idea, in which is made with no testing or data collecting. Theories are like model in that both cannot be absolutely right. And the purpose of science is to create theories and models and test them to find the approximate answer.

III. Hypothesis

The first hypothesis is there is 4 strings separately, and each of the strings has a magnet on the end. And then there is a main magnet which the strings magnet sticks on to. Therefore one string from the outside is pulled it affects the other 3 strings, because they are connected.

The second hypothesis is instead of having 4 separate strings, there is only 2 strings and they are interlocked with each other, and in the middle of both strings are magnets that connect them together.

The last hypothesis is there are 2 strings, 2 washer with a hole in the middle attached to the strings. Then a lego-like way of connecting things is attached to the washer, that connects the strings together.

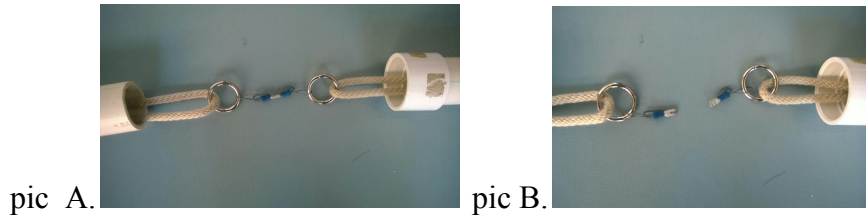
VI. Materials

Item	Quantity	Function
PVC pipe	2	To cover the inner workings of the scientific method stick
rope	2	To pull on and experiment with
wires	2	to connect the electric connectors to the washers
washers	2	to connect the rope to the wire
PVC caps	1	to keep the ends of the pvc pipe closed
electric connectors	1	to hold the two ropes together
magnet	1	to find the washers
12 inch ruler	1	to measure the ropes

V. Procedure

1. observe the tube
2. label the each string
3. come up with an hypothesis
4. pull one strings until all the other strings is inside of the tube
5. pull the string that is on the other edge of the tube
6. Get a magnet and place it on the tube and find if the magnet react
7. pull the first string, that is before pull
8. come up with another hypothesis
9. use the magnet find the place where it sticks on to 10. pull two strings at the same time slowly
11. use two magnet on opposite end of the tube to find if it sticks
12. put all the strings back into the tube, to see if the magnet connects back together
13. turn the magnet to the opposite side and see if it connects or doesn't connect
14. come up with a final hypothesis
15. open up the tube
16. record findings

VI. Results



the electric connectors connected

The electric connectors disconnected

After opening the scientific method stick there will be either what looks like picture A Picture B. It is the rope going through the washer and then a wire connects the electric connectors on each side.

VII. Data Analysis

Using the pictures A and B it can be seen that the results support our hypothesis. In the last hypothesis it reads “Then a lego-like way of connecting things is attached to the washer, that connects the strings together.” While not exactly correct (a electrical connector and not a lego like object) it is still similar and the function is the same (to hold the internal workings together).

VIII. Conclusion

The purpose of the scientific method stick is too find out how it works. The last hypothesis is there are 2 strings, 2 washer with a hole in the middle attached to the strings. Then a lego-like way of connecting things is attached to the washer, that connects the strings together. The results do support the last hypothesis. The evidence that proves this is that it states “Then a lego-like way of connecting things is attached to the washer, that connects the strings together.”. The Scientific method stick relates to the big picture because if we give this experiment to kids at a younger age and then give them more like this getting progressively more difficult than the young minds will be ready for the world that lies ahead of them. The only improvement that i would add is to remove the washer all you need is the wires to connect the rope to the electrical connectors. In the future scientific method sticks should be handed out to more children with their results given back to see just how the school system is affecting their minds at different levels of it and to see why that is.

IX. Bibliography

<https://sciencebob.com/what-are-the-steps-to-the-scientific-method/>

http://www.sciencebuddies.org/science-fair-projects/project_scientific_method.shtml

<http://www.livescience.com/32390-what-is-a-theory.html>