Make a pendulum

A pendulum is simply a weight (called the bob) at the free end of a string or rod so it can swing from a pivot (where it is attached).
In the past pendulums were used in clocks to accurately measure time and has been exhaustively studied by scientists. Today we use electric, electronic or atomic tools to measure time.
For us a pendulum is a lot of fun!
Here is a simple way to make a pendulum that children can enjoy.

What you need:

- A bottle cap (eg Coke or Chubby or Solo or water bottle)
- A bottle that fits the cap (I recommend a few different ones for variety)
- A skewer or ice pick
- Some strong light string (light nylon can do, long enough to get the pendulum at child height)
- A beam or bar or hook where you can hang the pendulum
- A stove or lighter
- A small piece of foil or plastic
- Water or gravel or rice or sand (to weigh the bottle)

What to do:

1. Heat the skewer or tip if the ice pick on a stove or with a candle or lighter
2. Use the hot Skewer of ice pick to punch two holes in the bottle cap (through which string will be looped)
3. Tie one end of string through these holes so that the string is knotted on top the bottle cap
4. Fold the aluminium foil (or plastic) a few times and trim it to fit inside the bottle cap (this will be used to prevent water leaking out when the bottle is attached). You may trim after you have attached the bottle.
5. Attach the other end of the string to the beam or hook or bar or tree trunk. This is where the pendulum will hang
6. Attach any bottle of choice to the bottle cap after putting some water or gravel or rice into the bottle to give it some weight

Comments

Safety:
Teach your child that the bottle swings back and they should be prepared to catch it or block it or move out of the way, Or they should stand back when they propel it forward

Let children play with if it as they fell inclined. You can change the bottle, add coloured water, change the length of the string.
You may put up two different ones at the same time.
Later we may use these for science experiments.