

## 4.6 Project: Make a Balancing Toy

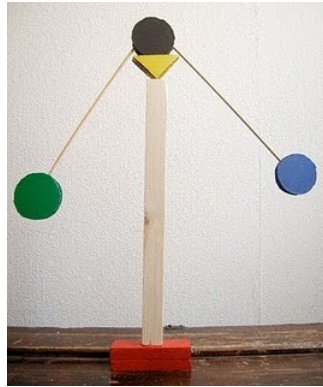
### Aim

To make a toy or model that balances.

It can either:

#### 1. Stay on a point for at least 10 seconds before falling over

Examples:



Or

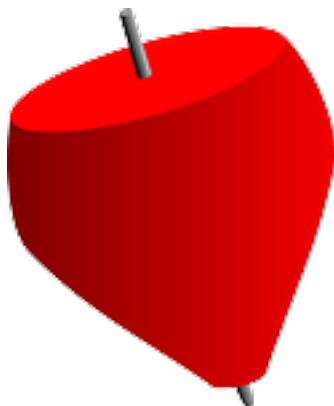
#### 2. Stay vertical and then right itself after being pushed.

Examples:



or

#### 3. Spin for at least 10 seconds and stay vertical:



## **Equipment**

Construction materials (Lego or other appropriate strong building material e.g. cardboard, ply or balsa wood, dowel, tooth picks, skewers, rubber thong or other plastic building material)

## **Method**

1. Decide the type of balance toy you want e.g. balancing toy, rocking toy, spinning top.
2. Decide on materials of the toy and how it will balance based on your investigations.
3. Explain to your teacher your ideas (you can draw, speak or show)
4. Once you have teacher's approval, construct your toy!
5. Test it to see if it works well by moving it and time how long it stays up.
6. Redesign if it crashes down too quickly.
7. Final test – keep it vertical for at least 10 seconds

## **Results**

Did it work well?

What did you change?

What other things would you like to try?