



# MAKE A BUTTERFLY BALANCER

## WHAT YOU WILL NEED

1. A piece of paper (tracing paper if you have it)
2. Thin cardboard (you could use inside of a cereal box)
3. Coloured paper
4. Scissors
5. Glue
6. Pencil
7. Colouring in pencils or paint or even glittery stickers or glitter
8. Tape
9. 2 pennies
10. Small lump of clay or blue tack would work
11. A small stick or a pencil



## STEP 1

To make a perfectly symmetrical butterfly (which is necessary for this craft), trace half a butterfly on a folded piece of paper, then cut it out. For the younger ones, you may need to trace and cut it out as it needs to be symmetrical to work!



## STEP 2

Trace the butterfly shape onto the card. If you are using coloured paper trace it again so you have two butterfly shapes and then stick this onto the cardboard being careful to match up the edges.

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### STEP 3

Here's the fun part, start decorating. You can use stickers and glitter (see our other beautiful butterfly examples) to make our butterfly sparkle but you can use paints or just some crayons to make pretty patterns.



### NOW FOR THE SCIENCE



### STEP 4

First see how your butterfly balances by testing it on a pencil or stick from the garden. You should find the balance is at the centre of your butterfly.

### STEP 5

Now turn your butterfly over and tape two pennies to the back top of the butterfly.



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### STEP 6

Using some clay or a blob of blue tack now try balancing your butterfly again!



### STEP 7

You will see that your butterfly will only flutter on your stick if you balance it at the top!

### WHAT WE HAVE LEARNT

We have learnt that the weight of the pennies has shifted centre of balance for your butterfly. Before you added the pennies, the butterfly could only balance on the pencil if you positioned it central to the pencil. However, when you added the two pennies it shifted gravity with the butterfly now only balancing on the pencil when you position the pencil between the two pennies. Here are some more examples of pretty butterfly balancers...

