Paper Spring Animals

Stem Activities

Cut paper animals really bounce and jump!? It's not magic - it's science! In this DIY activity, we'll create springs using paper folding techniques to make small versions of our paper animals! Afterwards, learn how elastic potential energy converts to kinetic energy and explore the mysteries of elasticity!

Materials Needed

Card paper
Coloured paper
Double-sided tape
Glue sticks
Fine liner
Pencil
Scissors
Ruler

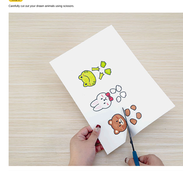
Step-by-step tutorial

Step 1

Using marker pens, draw your favourite animal's head, arms and legs on the card paper.

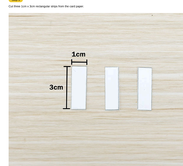
Step 2

Carefully cut out your drawn animals using scissors.



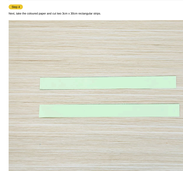
Step 3

Cut three 1cm x 3cm rectangular strips from the card paper.



Step 4

Next, take the coloured paper and cut two 3cm x 30cm rectangular strips.

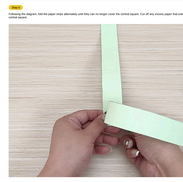


Step 5

Align one end of the rectangular strips vertically and stick them together.

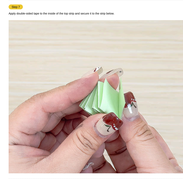
Step 6

Following the diagram, fold the paper strips alternately and they can no longer cover the central square. Cut off any excess paper that extends beyond the central square.



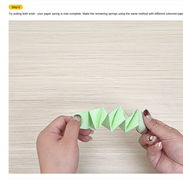
Step 7

Apply double-sided tape to the inside of the top strip and secure it to the strip below.



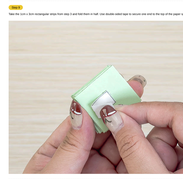
Step 8

To crafting both ends - your paper spring is now complete. Make the remaining springs using the same method with different coloured paper.



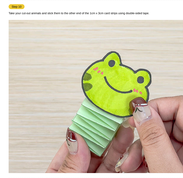
Step 9

Take the 1cm x 3cm rectangular strips from step 3 and fold them in half. Use double-sided tape to secure one end to the top of the paper spring.



Step 10

Take your cut-out animals and stick them to the other end of the 1cm x 3cm card strips using double-sided tape.

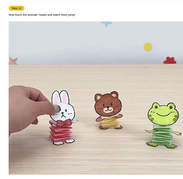


Step 11

Attach the animal's limbs to the paper springs, and your paper spring animals are complete.

Step 12

Now touch the animals' heads and watch them jump!



The Science Behind It:

Paper springs can jump because they store elastic potential energy. When you compress the paper spring, force causes it to deform and store energy. Once released, this energy quickly converts to kinetic energy, making the animals bounce. This works on the same principle as springs or bouncy balls, demonstrating how objects can store and release energy!