Imperial College London

THE GREAT **EXHIBITION ROAD** FESTIVAL

POLYMER CHRISTMAS PAPER CHAINS

In this activity you are going to make chemistry-inspired paper chains. Your paper chains can be used as decorations to make somewhere look a bit more festive!

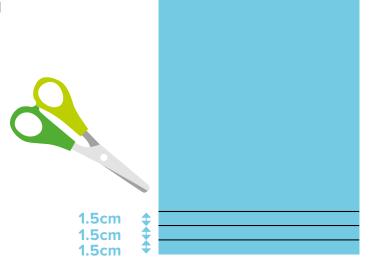


→ STEP 1

Take one sheet of card and using a pencil and ruler draw a line 1.5 cm up from the bottom, now draw another line 1.5 cm above that. You should have two strips that are 1.5 cm wide.



Use your scissors to carefully cut along the lines to give you strips like this.



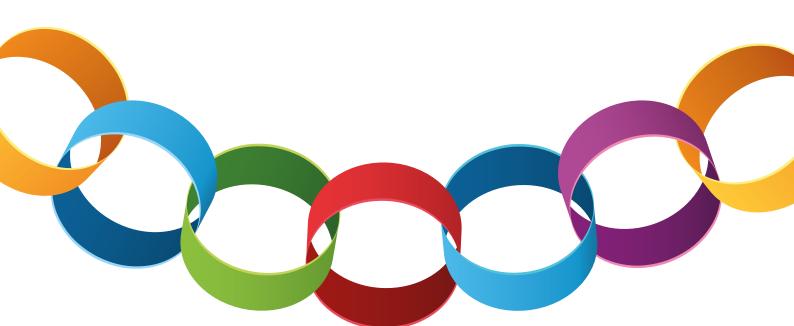
→ STEP 3

Take one strip and make it into a loop. Use your glue to stick the ends together.

→ STEP 4

Now you've made a loop, you can join lots of loops together to make a long chain. See how long a chain you can make and use it as a decoration!





So how is this related to chemistry?

Well it's not only paper that comes in chains. Did you know that many molecules are in long chains, which we call **polymers.** Polymers are very long molecules made up of lots of smaller molecules just like your paper chain. Scientists study polymers and can even create brand new polymers to make new materials! Some polymers can be made of thousands of linked up smaller molecules! How long can you make your chain?