



What are clouds?

Overview

What are clouds? How do they form? In this activity you'll learn the answers to these questions and find out how to identify clouds. You'll then get the opportunity to make your own cloud spotting binoculars, and watch the clouds go by, by going outside or looking out of your window.



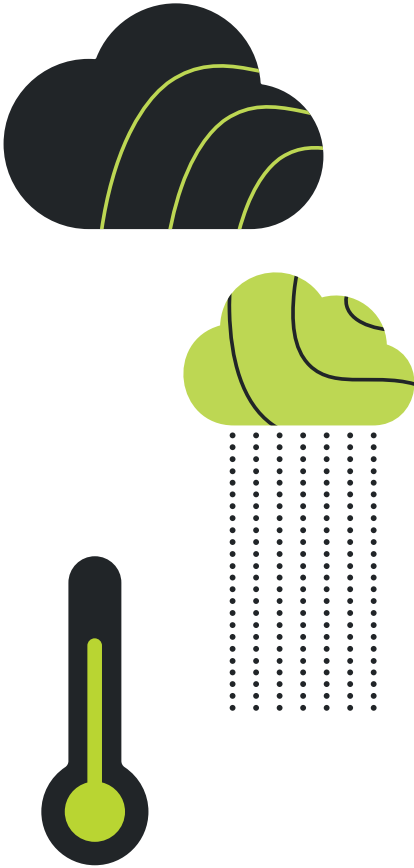
Time required

60 minutes



Materials required

- Toilet roll tubes x 2
- Assorted craft material.
- Cotton wool or tissue paper
- Sellotape
- Cloud spotting guide (You can find it [here](#))
- Internet



Activity Steps

01 What are clouds?

Clouds are one of nature's most consistently visible wonders and can also tell us a lot about what is going on up in the atmosphere. So, what are clouds? Clouds are made up of lots of tiny water droplets or ice particles floating in the sky at different heights.

As the sun heats water, it turns into an invisible gas called water vapour, this is called evaporation. The higher up you get in the sky, the cooler the temperature, so as water vapour rises it cools. Eventually it becomes cool enough to turn back into water and a cloud forms, which we can see in the sky. Clouds are warmer than the surrounding air, meaning that they float because warm air is lighter than cool air. This is because when water vapour cools into water droplets a small amount of heat is released. Watch the [video](#) to explain this a little further.

Tip

Why not try to make a cloud at home? You can find the link [here](#) on our make a cloud experiment.

02 Research and cloudy pictures (cotton wool, paper, glue, internet)

Watch the cloud spotting guide video that can be found [here](#) and using the cloud identifying sheet which can be downloaded [here](#). start to think about what clouds you may want to make.

- Gather some spare paper (blue if you can) and cotton wool.
- Start by tearing the cotton wool into smaller bits so that you have plenty to use.
- Using the cloud identifying sheet can you pick some different cloud types that you wish to make? What shapes and forms do the different cloud makes?
- Create the clouds by tearing the cotton wool into different shapes and gluing them down on your sheet of paper.
- Label the clouds with their names at the bottom of the picture.

Tip

Have a look online, can you discover any other cloud types that were not mentioned in the video? Try and use the cotton wool to make and label then new ones you find. If you'd like to research more information on clouds, you can look [here](#).



03 Create your own pair of cloud binoculars to go cloud spotting

- Gather two empty toilet roll holders.
- Using tape, put the two toilet roll holders together and tape them around the middle.
- If you wish, you can also add an extra piece of small card over the top of the two cylinders to keep them more securely together.
- You should now have a binocular shape that you can see through.
- Using a selection of materials decorate your binoculars, be creative!

Tip

You could add some string to each end of the binoculars so you can have them round your neck, poised to get ready to explore the sky!

04 Cloud spotting

Let's put your knowledge to the test by going into your garden or looking out of your window with your cloud binoculars.

Using the cloud identifying sheet can you spot the different cloud types in the sky? Make a list of all the different types that you can see. Are there any unusual shapes that the clouds are making that are not on your cloud identifying sheet?

We'd love to see what you find so tweet us with your cloud pictures and cloud spotting discoveries @metofficelearn If you discover anything unusual, let's see if we can identify it together!