

Script for leaders

Follow along with the video session for
‘Condensation station’.



Explain what you’re doing today, give everyone a bit of background information, and make sure they have what they need. You could say something like:

Today we’re going to develop skills by learning about different cloud types and how they affect air activities. As we’re not spending as much time outside right now, we’re going to bring the clouds indoors.

Before we get started, we’ll need some cotton wool, a clean, empty plastic bottle, matches, and some warm water. We’re going to take the label off the bottle so we can see inside.

Tell everyone how clouds form. You could say something like:

Clouds form when water vapour in the air cools down and condenses, turning back into liquid water. Water droplets form more easily if they’ve got something to stick to like dust or smoke.

Explain the three types of cloud and what they look like so people can add them to their sky-scape. You could say something like:

There are three main types of cloud so we’ll start by adding them all to our skyscape – you can make it on a table or the floor, wherever works.

To make our cirrus cloud we’re going to tease our cotton wool apart so it’s all wispy. To make a cumulus cloud we’re going to bunch up our cotton wool into, well, a cloud shape; and to make our stratus cloud we’re going to spread out our cotton wool so it’s like a blanket.

There are also words to describe how high clouds are in the sky. Alto describes mid-level clouds, so that one’s an altostratus cloud and cirro is for high-level clouds, so that one’s a cirrocumulus cloud.

And one more new word – cumulonimbus clouds are a big pile of clouds that bring rain. That’s one we’re all familiar with.

Talk though how to prepare the plastic bottle to make the cloud by coating the inside with warm water. You could say something like:

So now we’ve got our sky-scape full of different types of clouds it’s time to add our own. We’ll need the bottle, warm water, and matches.

We’re going to pour a few centimetres of warm water into the bottle and then put the lid on tight and shake it so the inside’s coated with water.

Tell everyone to carefully light a match, let it burn, blow it out, drop it into the bottle and put the lid again. Make sure everyone knows that it’s important to be careful – it’s OK if it takes them a few tries to get it right. You could say something like:

Once that’s done, carefully light a match – let it burn most of the way down, then blow it out, drop it into the bottle, and put the lid on nice and tight. It’s OK if it takes you a while to get the hang of it, just try, try again.

Ask everyone to squeeze their bottle hard to make a cloud. Explain how planes cope with the clouds. You could say something like:

The good news is that planes cope pretty well with clouds. Most of the time, pilots use autopilot or digital maps when visibility’s reduced. They may navigate around big clouds (especially the cumulonimbus clouds) because they can cause turbulence so avoiding them makes the flight smoother for the passengers.