



Weather heroes



Introduction

Overview

This lesson introduces an exciting range of careers in weather and climate and those influenced by the weather. It helps pupils understand how their knowledge of Science, Technology, Engineering and Maths (STEM), alongside a range of wider transferable skills, are key to securing these roles.



Time required

70 minutes for all activities (or less if individual tasks are selected)



Materials required

- Weather heroes film
- Weather heroes slides
- Case study template (available on page 7)
- Weather heroes case studies (available on pages 8 – 10)
- Pens and paper

Learning objectives

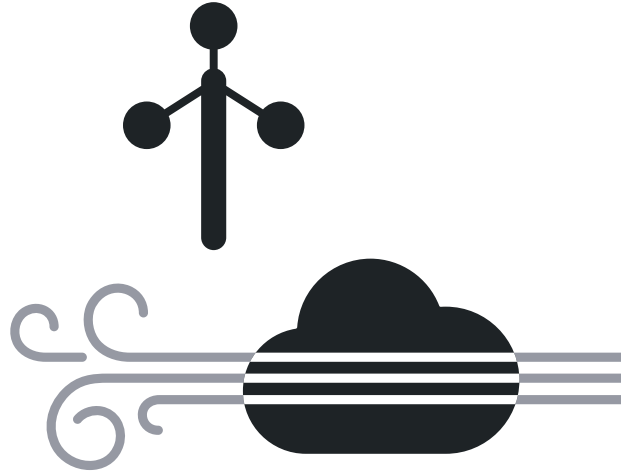
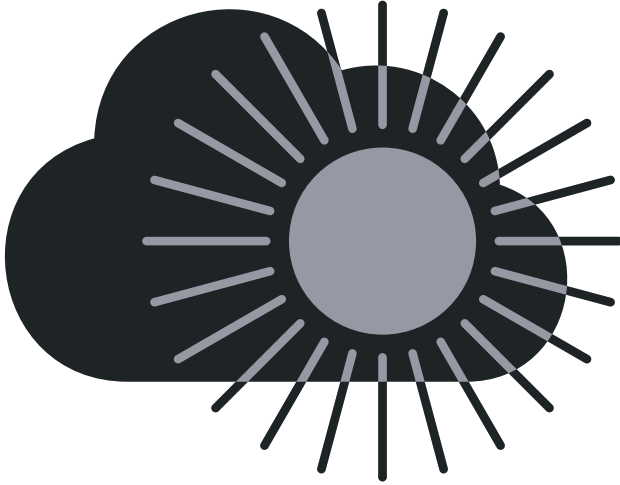
This lesson will enable pupils to:

- Identify a range of different careers that involve the weather
- Develop understanding of the skills needed for careers in weather
- Reflect on the skills, strengths and qualities they can begin to develop in order to work towards their own career goals

Curriculum links

- **English literacy and language** – written and verbal communication
- **Geography/Social studies/The World Around Us** – people, place and the natural environment
- **PSHE and Citizenship/PSE/Health and Wellbeing/PDMU** – careers, citizenship and the community

Activity steps



01

To kick off the lesson, play the weather heroes film. Explain that you're going to conduct a short comprehension activity afterwards and so the class will need to listen carefully.

Once pupils have watched the film, ask them to hide any notes. Ask the following questions in a hands-up quiz format:

- What jobs were mentioned in the film? E.g. presenter, communications expert, archivist, technologist
- What does each role involve? (Make sure pupils understand what each role means)
- Which skills are needed to do each job? E.g. Science, technology, engineering, mathematics, social sciences, arts

Tip: If you have time beforehand, you may also wish to create a **Kahoot** quiz using these questions, to add more fun and interactivity to the session.

Record answers on a flipchart or get pupils to create a mind-map of their answers to look at later.

Explain that to work in roles influenced by weather, there are a lot of skills that help people do their jobs. Conclude by explaining that some skills may be more important than others depending on the role, but there will also be instances where different jobs will need some of the same skills too.



10 minutes



Slides 2 – 3



Weather heroes film

Activity steps

02

Divide your class into pairs or threes.

Ask pupils to tell each other what their dream jobs are and why: what would they do? Where would it be in the world? What skills would they need? What would they wear? Would they work inside or outside?

Bring attention back to the front and ask pupils to share their dream jobs and explain what skills they have or need to be good at it. Compare their answers: did anyone have similar roles, or different roles needing similar skills? Why might this be? Steer the discussion to a conclusion that having the right mix of skills is crucial for achieving their goals.

03

Explain that they're now going to look at the skills and abilities needed in a range of different careers.

Read off the following careers which are also illustrated on the slides:

Sailor; farmer; lorry driver; pilot; meteorologist (weather forecaster); construction worker (builder); head teacher; tennis club manager; hospital administrator; gardener; beach lifeguard and architect

Ask pupils to put their hand up if they think the weather is important to a person doing this job.

Reveal that the answer is that weather is important for all of these jobs!

Assign each group or pairing a different job from this list. For each, read out the accompanying case study (found on pages 8 – 10) which outlines the main roles and responsibilities of a person's career. Depending on the ability of the group, you may wish to hand out the case studies as print-outs, or get the group to listen carefully before moving on, as a further comprehension activity.



10 minutes



Groupwork



20 minutes



Groupwork



Slides 4 – 6



Case study template



Case studies

Activity steps

Explain to the class that using the information given and the case study template (found on page 7), they will need to create a skills profile for the person in their case study.

Give the class some guidance on the kinds of information they will need to record on their job profile to present at the end of the lesson:

- The top skills and strengths they need to have
- The subjects they need to be good at
- The types of personality traits they would need to have
- Who they help/who benefits from their work
- The problems they might have to solve
- How weather influences this job

They can also consider what skills they already learn at school which might help the person do their job (writing, reading, listening, measuring and evaluating).

Tip: To adapt this activity for more advanced groups, ask pupils to imagine that they're applying to work on the same team as the person in their case study. Individually, they will need to identify their own strengths and reflect on the 'gaps' or areas they need to work on. They can then either present this to the class (as per step 3) and/or record their ideas as a poster, mind map or action plan.

04

Invite each group to present their ideas to the class. Encourage them to listen actively and take notes on the skills they list, one thing they liked, one thing they would suggest.



20 minutes



Groupwork



Slides 7

Activity steps

After each group has presented, ask the others to share feedback and thoughts using prompt questions such as:

- Did anyone have similar skills and qualities for their profile? Why do you think you had similar answers?
- Who is helped and why is it important to support them?
- Where do you gain these skills and are these skills you could use for other careers?
- How might these skills be transferable to different types of careers?

05

Bring the lesson to a close by asking the class to explain what they have learned and what skills they have used, linking this back to the lesson's main objectives.

Ask pupils to reflect on their own skills and where their strengths might help them do a similar job to the case studies in the future. If time allows, invite the class to write down one or two 'career goals' which could include a skill they want to learn or even something they would like to achieve by a certain age. They may want to return to the dream jobs discussed in Step 2 (have these changed? How would they build out an action plan for getting the skills needed for these jobs? They could use the case study template (found on page 7) and fill this in for their dream job).

Highlight that there are many exciting jobs and different skills needed for work influenced by weather. These skills can be applied to different careers and sectors.



10 minutes



Individual task



Case study template

Case Study Template

Job title:

Description of job:

**Skills/qualifications
needed:**

**Influence of the weather on
the job:**

**Who they help/who
benefits from their work:**

**The problems they might
have to solve:**

Weather heroes case studies

Sailor

Sailors work as a member of the crew on a sail boat which they maintain and operate. Sailors need to know how strong the wind is going to be, when it will be windy and in which direction. Sailors also need to check for dangerous storms, either to try and avoid them or at least make sure the boat is prepared to minimise any danger or damage (sails put away etc.) They will also be interested in whether the sea is calm or very rough.

Farmer

Farmers grow plants and/or animals for food and other uses. Many farmers work on big pieces of land.

Farmers need to know if and when they can do certain tasks. Some tasks like harvesting might be much more difficult in wet weather, and other weather like frost might ruin crops. Dry weather might mean the farmer needs to water crops more or make sure animals have shelter from the sun.

Lorry driver

Lorry drivers drive big trucks, sometimes over very long distances. They transport all kinds of goods, sometimes delivering materials to factories to be made into other things, and sometimes delivering products to shops to sell. Lorry drivers need to look out for signs of wet weather as driving in the rain or snow can be dangerous – the tyres of a lorry might not have the same grip on the road when it's raining or snowy. The wind can also affect lorry drivers, as strong gusts can blow trucks over – especially if they're carrying lighter loads, like crisps!

Pilot

A pilot (sometimes called an aviator) controls the flight of an aircraft.

Pilots need to know the weather at their destination to make sure they can land safely. In the case where severe weather hits, for example a storm or dense fog, pilots may not even be able to take off as it is too risky for them and their passengers, so it's important they know this ahead of time. They also need to know how fast the wind is blowing at the height they're flying at, as this will influence how much fuel they need.

Weather heroes case studies

Meteorologist (Weather forecaster)

Meteorologists use different scientific techniques to understand and predict what the weather will be in the future.

Meteorologists need to interpret weather data accurately in order to do their job well and make sure people are given the right information about the weather.

Construction worker (Builder)

A construction worker normally works on a building site to make buildings and other types of infrastructure.

Often construction workers work on outdoor sites and might check the weather to see what to wear, and also to see if they need to do anything to protect their equipment and materials e.g. covering up dry materials when it is raining. Some types of work might only be possible in the right weather conditions, particularly if they're working high up.

Headteacher

A headteacher looks after a school or sometimes more than one school, managing staff and overseeing the running of the school in general.

A headteacher might use the weather forecast to change the timetable of outdoor activities e.g. sports day, wet play or PE. They might also use it to check for severe weather like storms or snow, to see if they need to close the school.

Tennis club manager

A tennis club manager runs a tennis club facility, ensuring maintenance is done and taking bookings from customers.

A tennis club manager might use the weather forecast to see if they need to cover any tennis courts to protect them from the rain, or water them more during a dry spell, and to predict if it will be a busy day (as tennis will normally be more popular in good weather) in order to see how many staff they will need.

Weather heroes case studies

Hospital administrator

Hospital administrators are responsible for the day-to-day running of a hospital, for example checking patients in and out, managing who is working where in the hospital, taking phone calls and making sure there is enough of the right equipment available.

Hospital administrators might check the weather forecast, looking out for extreme weather to see if there might be more weather-related injuries or illness in the near future.

Gardener

A gardener normally designs, builds and/or maintains gardens.

A gardener might check the weather to see what to wear as they will often be outdoors. They will also consider the climate of the location they're working in before planting certain types of plants. Some types of work might only be possible in the right weather conditions. They might also be thinking about designing gardens that can cope with our changing climate.

Beach lifeguard

A beach lifeguard helps keep people safe when they visit the beach and go into the sea.

They check the weather forecasts and weather warnings to make sure they know whether sea conditions will be safe for people to swim. For example, it's important to know whether there's likely to be a strong rip tide, meaning swimmers may not be allowed to go in the sea.

Architect

An architect is someone who designs buildings. When they're planning their design, they need to know what the climate is like in the location where the building will be. This includes the average and extreme temperatures, how much rain is typical and the usual wind patterns. They also look at whether the area experiences extreme weather events, such as tornadoes or flooding. They can then make sure the building they're designing can cope with the weather it will experience.