

Educator guide



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Educator guide

Weather and climate affect everything, from the way we live, to what we eat, to our personal safety. We want to help young people understand the wide-reaching impacts of weather and climate change locally and globally, for people, places and businesses. Combining world-leading meteorology expertise with a sense of fun and adventure, our programme aims to spark young people's curiosity in the world around them and help them understand the effects of weather and climate on their community. This programme brings a fresh perspective on weather and climate with resources that are...



Aligned to the curriculum

Our resources have been designed to align with curriculums across the UK and highlight careers and pathways throughout. The programme covers:

- **England:** Science, geography, PSHE, English and literacy and arts in the KS2 and KS3 areas of the English curriculum, along with Gatsby benchmarks 2, 3 and 4
- **Wales:** Areas of Science and Technology, Literacy and Communication, Expressive arts, Humanities in the Curriculum for Wales Framework, along with the careers and work-related experiences (CWRE) guidance. The majority of materials are also available in Welsh language
- **Northern Ireland:** Language and Literacy and the World Around Us, The Arts, Personal Development and Mutual Understanding areas of learning in the KS2 Curriculum. English, the Arts, Environment and Society, Science and Technology areas of learning in the KS3 Curriculum along with the Careers Education, Information, Advice and Guidance (CEIAG) strategy
- **Scotland:** Areas of Technologies, Expressive arts, Languages, Social Studies, and Sciences of the Curriculum for Excellence (CfE) and links to the Career Education Standard

Educator guide

Easy and flexible to deliver

The programme is flexible to fit into whatever timeslot you have, with little preparation. You can pick and choose the activities and routes that work for your teaching depending on:

- **The time available:** whether you have 10 or 90 minutes, if you want to combine activities to cover topics in depth or use shorter activities to supplement planned teaching
- **Your preferred delivery methods** and activities that suit your group, such as creative explorations, hands on activities, research tasks, individual and group challenges
- **The level of your group you are working with:**
 - First explorations** - This content can be used to start exploring concepts in climate change and weather. It may be most suitable for 7-11 year olds or as preliminary content for older students to build the concepts
 - Deeper discovery** - This content can be used to explore concepts in climate change and weather in more depth. It may be most suitable for 11-14 year olds or as extension content for younger students to build on the concepts



Put young people at the heart of their learning

The programme's resources offer a new perspective on key themes related to weather and climate:

- The programme embeds the principles of **Philosophy for Children (P4C)** to help young people engage more deeply in topics relating to weather and climate change through question-led enquiries. There is a selection of guides which explain how to deliver a P4C discussion
- The resources focus on building **four key skills** — creativity, problem solving, leadership and teamwork — that are essential to young people's future. The programme broadly aligns with the Skills Builder Universal Framework

First explorations

Our resources cover six themes, each offering a range of activities to pick from. Below, you can find a short description of each activity, timings, and links to the resources

Forecasting and prediction	Extreme weather	Technology and innovation in weather	Weather and climate stories	Climate change	People in weather and climate
<p>20 min P4C stimuli and questions</p>	<p>20 min P4C stimuli and questions</p>	<p>20 min P4C stimuli and questions</p>	<p>20 min P4C stimuli and questions</p>	<p>20 min P4C stimuli and questions</p>	<p>10 min Weather heroes cards An engaging card game to discover a range of jobs in weather and climate</p> <p>20 min Exploring jobs at the Met Office An activity based on a cartoon about people working for the Met office, to discover a range of roles and what people like about them</p>
<p>15 min Weather carousel An introductory quiz to explore a range of weather reporting stations and understand the importance of weather forecasting</p>	<p>15+ min Extreme weather mindmap A creative task to explore and record different ideas and feelings about an extreme weather event</p>	<p>15 min Exploring the evolution of data symbols A creative activity to delve into weather symbols, looking at how they have evolved over the years and designing a new one</p>	<p>15 min UK weather and climate quiz A quick quiz to explore how weather and climate change impact the UK</p>	<p>25 min Climate change jargon busting An engaging card game to get young people's heads around key climate change terms</p>	<p>15 min Radar fact-finder bingo A fun game of bingo to make sense of key terms in weather and climate</p> <p>20 min Skills matching An activity to delve into skills and abilities needed in a range of different careers</p>
<p>15+ min Weather in the media: reality or exaggeration? A fun TikTok style activity to learn how to distinguish between 'real' and 'exaggerated' weather headlines in the media</p>	<p>20+ min Mitigating extreme weather risks A hands-on challenge to help local people prepare for an extreme weather event from a local weather office</p>	<p>30 min Weather data cards activity A fun card activity to understand how different types of weather might influence people's lives in different locations</p>	<p>20 min Weather action plan A hands-on group task to help local community prepare for future weather events</p>	<p>20 min Exploring climate change data An activity to work out how climate change is measured and how to interpret data</p>	<p>15 min Looking at weather forecasts to make business decisions A hands-on activity to understand how the weather can impact business decisions</p> <p>15 min Exploring your dream job An engaging activity including a film and a discussion exploring dream jobs</p>
<p>25+ min Creating your own weather forecast A hands-on activity where young people put themselves in the shoes of a meteorologist and create a weather forecast</p>	<p>DIY activities</p> <ul style="list-style-type: none"> ● Exploring extreme weather events ● Extreme weather shelter ● Making lightning 	<p>30 min Designing a weather app A hands-on creative activity to design a weather app using a range of data visualisation techniques</p>	<p>DIY activities</p> <ul style="list-style-type: none"> ● Weather warriors ● Weather memories ● Amazing aurora 	<p>Exploring climate impacts This lesson explores climate change and its impacts around the world.</p>	<p>DIY activities</p> <ul style="list-style-type: none"> ● Weather heroes ● Weather careers
<p>DIY activities</p> <ul style="list-style-type: none"> ● Make a rainbow ● The air around us ● Cloud spotting ● Make a barometer ● Forecasting fact-busters 		<p>DIY activities</p> <ul style="list-style-type: none"> ● Bringing data to life ● Supercomputing coding 	<p>Amazing aurora Create your own stories about space weather and its impacts in this lesson.</p>		

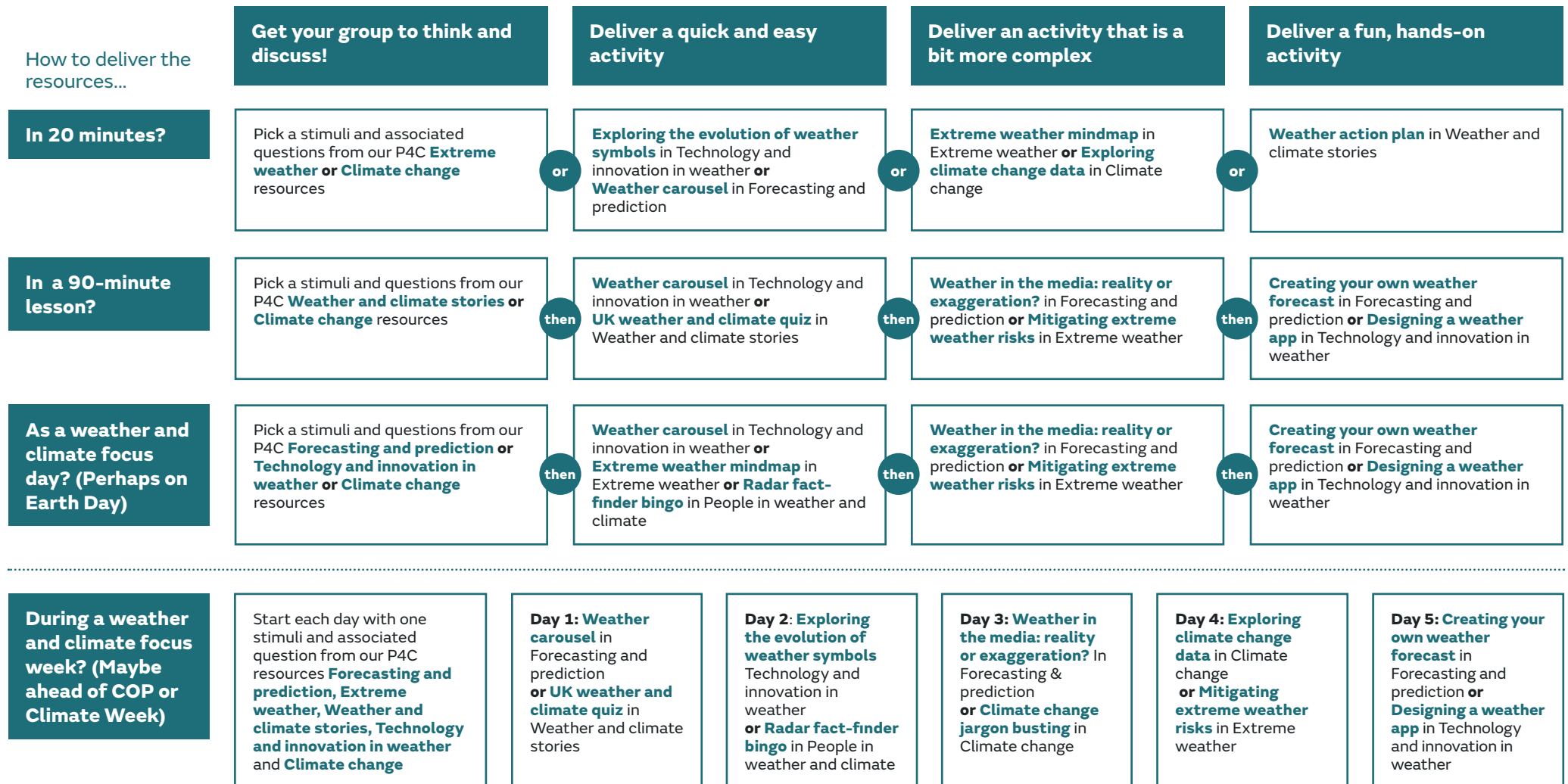
Deeper discovery

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Forecasting and prediction	Extreme weather	Technology and innovation in weather	Weather and climate stories	Climate change	People in weather and climate
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<p>15 min Forecasting fact-buster quiz A short fun quiz to understand the impact of fake news</p>	<p>15 min Exploring extreme weather events A quick research task to explore a type of extreme weather</p>	<p>15 min Exploring data visualisation An introductory activity to dive into weather data and understand how it can be visualised in many different ways</p>	<p>20 min Exploring past weather events A quick research task to look into the impacts of a past weather event</p>	<p>25 min Emotion line graphs An activity to explore feelings about climate change through an emotion line graph</p>	<p>15 min Exploring careers at the Met Office An activity using a cartoon to dive into the world of work and explore careers at the Met Office</p> <p>25 min Solving a weather related problem A fun challenge to put young people in the shoes of a professional facing a problem related to weather and climate</p>
<p>20 min Weather stories An activity looking at weather reporting in different outlets and how stories might be told differently depending on the source</p>	<p>30 min Creating extreme weather guidance A creative group task to help others prepare for extreme weather events</p>	<p>15 min Exploring weather impacts A fun card game to explore different visualisations of weather data</p>	<p>20 min Weather event action plan A hands-on activity to help a local community that has been affected by a past weather event</p>	<p>25 min Interpreting climate models A group challenge to explore the concept of climate change modelling and look at different scenarios for the future</p>	<p>20 min The importance of building diverse teams A discussion activity to reflect on the importance of diversity</p> <p>25 min Creating a Met Office job advertisement An activity where young people put themselves in the shoes of a recruitment team and identify skills and qualifications needed to work at the Met Office</p>
<p>30 min Making your own weather report A hands-on activity to understand the ins and outs of weather forecasting and create a weather report</p>	<p>DIY activities</p> <ul style="list-style-type: none"> ● Exploring extreme weather events ● Extreme weather shelter ● Making lightning 	<p>30 min Creating a weather data app A group challenge to design a weather app, using a range of data visualisation techniques</p>	<p>DIY activities</p> <ul style="list-style-type: none"> ● Weather warriors ● Weather memories ● Amazing aurora 	<p>60 min Exploring climate impacts This lesson explores climate change and its impacts around the world</p>	<p>DIY activities</p> <ul style="list-style-type: none"> ● Weather heroes ● Weather careers
<p>DIY activities</p> <ul style="list-style-type: none"> ● Make a rainbow ● The air around us ● Cloud spotting ● Make a barometer ● Forecasting fact-busters 		<p>DIY activities</p> <ul style="list-style-type: none"> ● Bringing data to life ● Supercomputing coding 	<p>Amazing aurora Create your own stories about space weather and its impacts in this lesson</p>		

First explorations

Not sure where to start? Pick the route that works for you, whether you have 10 or 90 minutes, if you want to deliver the resources as part of a focus day or week or if you want to focus on a theme



First explorations

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What do you want to focus on?

Start with a short discussion or intro activity

Deliver an activity that is a bit more complex

Understanding climate change

Pick a stimuli and questions from our P4C **Climate change** resources

or

UK weather and climate change quiz in Forecasting and prediction

then

Climate change jargon busting or Exploring climate change data in Climate change

Focusing on Careers in weather and climate

Exploring jobs at the Met Office or Radar fact-finder bingo in People in weather and climate

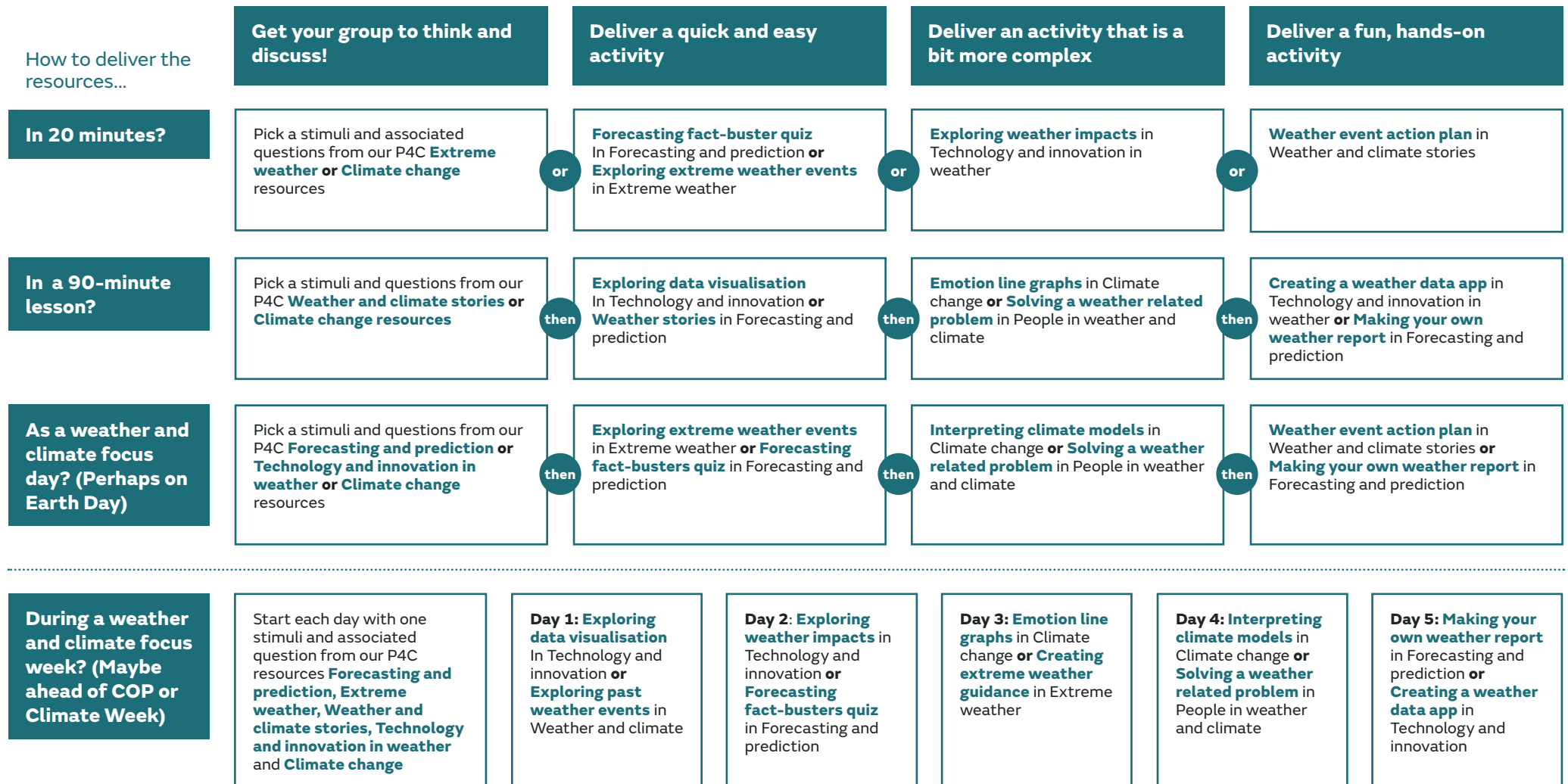
then

Looking at weather forecasts to make business decisions or Exploring your dream job or Skills matching in People in weather and climate

Not all of our resources are included in these suggested routes. As we develop new resources, there will be new ways to integrate our programme into your teaching, so make sure to regularly check what other resources are available on our website. If you want to share some thoughts and feedback about our programme with us, you can email us on stem@metoffice.gov.uk

Deeper discovery

Not sure where to start? Pick the route that works for you, whether you have 10 or 90 minutes, if you want to deliver the resources as part of a focus day or week or if you want to focus on a theme



Deeper Discovery

Not sure where to start? Pick the route that works for you, whether you have 10 or 90 minutes, if you want to deliver the resources as part of a focus day or week or if you want to focus on a theme

What do you want to focus on?

Start with a short discussion or intro activity

Deliver an activity that is a bit more complex

Understanding climate change

Pick a stimuli and questions from our P4C **Weather and climate stories** or **Climate change** resources

or

Exploring extreme weather events in Extreme weather

then

Emotion line graphs or **Interpreting climate models** in Climate change

Focusing on Careers in weather and climate

Technical term-busting, Exploring careers at the Met Office or **The importance of building diverse teams** in People in weather and climate

then

Creating a Met Office job advertisement or **Solving a weather related problem** in People in weather and climate

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