

Solving a weather related problem

- 1 Divide everyone into small groups of three or four and explain that in this activity, they will be focusing on building their problem solving skills and collaborative teamworking skills
- 2 Give each group a challenge card (found on pages 4 and 5) that focuses on the role of someone who works in weather or climate and sets them a challenge based on a real-world scenario. A reminder of the main 'characters' and roles from each of the challenges can also be shown on slide 3
- 3 To solve the problem posed, each group will need to work together, managing the time available to decide on the best course of action as a group. They may want to divide up tasks but their final decision must be a collective one. The flow diagram on slide 2 can help guide them on how to structure their plan. Their response should include the following:
 - An overview statement of the problem they are solving
 - The cause of the challenge that they are responding to
 - Possible options to meeting the challenge



20–25 minutes



Groupwork



Solving a weather related problem presentation slides



Challenge cards

- The solution which has been selected to be implemented
- An evaluation of this solution as an outcome with pros and cons addressed for the discarded alternatives

Explain to the group that they need to include real examples of how they would approach the challenge and respond to the scenario effectively in the world of work

4 As the groups carry out the challenge, observe how each one is functioning, if time allows, note down a skill you see each individual demonstrate. Share this with them at the end of the activity

5 When all groups have finished the task, ask them how the activity went:

- How was the experience of working in a team?
- Was it easy to come to a unanimous decision?
- If the decision wasn't unanimous, how did the team go about convincing other team members of their point of view on the problem?
- How might a classroom activity differ from the same scenario in a professional context?

6 Ask everyone 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 develop or even something they would like to achieve by a certain age. How would they build out an action plan for getting the skills needed for these jobs?

7 Bring the activity to a close by reinforcing that there is a whole range of careers in weather and climate, and that a crucial part of most of these roles is being a good problem solver, alongside a range of other transferable skills which can be relevant to a number of different roles and industries

Optional extension

Explain to the class that they need to include real examples of how they would approach the challenge and respond to the scenario effectively in the world of work. If they can access the internet, tell the groups to research a similar real-world scenario and explore how people working in weather and climate need a variety of skills to navigate through complex problems. To add an extra



5 minutes

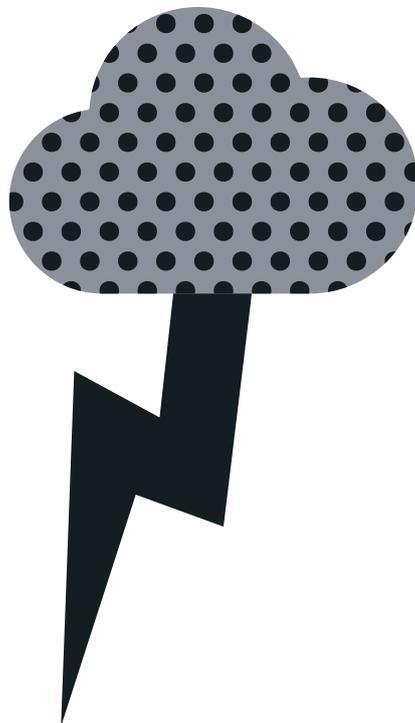


Groupwork

dimension to the challenge, circulate amongst the groups and hand each a catalyst card (found on page 5) that relates to their scenario. You can also bring the challenges to the screen (on slide 4). These introduce a last-minute issue or problem they must solve.

Invite each group to present their ideas, and reflect on the skills they had to use and the ideas they came up with, using prompt questions (on slide 5) such as:

- What skills and qualities would someone working in this career need to solve the challenge you faced?
- Are these skills you could use for other careers? Which ones?
- What career path do you want to pursue and why? Which skills are required?



Weather heroes challenge cards

Katie: I'm a partnerships manager for the Met Office. Part of my job is to look after the 'Weather Ready' campaign. I want to make sure the campaign reaches older people as they are a key target group, but older people are less active online and on social media. Can you help me make a plan to reach this audience?

Find out more:

www.metoffice.gov.uk/about-us/careers/working-here/our-stories/katies-journey

www.metoffice.gov.uk/weather/warnings-and-advice/seasonal-advice/about-weatherready

Alex: I'm an operational meteorologist for the Met Office. Part of my job is to prepare graphics and brief the weather presenters. A storm has been predicted. The presenter will only have 1 minute and 40 seconds to deliver the report. Can you help me prepare a concise but accurate briefing for them?

Find out more:

www.metoffice.gov.uk/about-us/careers/working-here/our-stories/alexs-journey

<https://www.metoffice.gov.uk/about-us/press-office/news/weather-and-climate/2022/red-weather-warning-issued-for-storm-eunice>

Kemi: I'm a software tester for the Met Office. I work as part of a team to build software for our services to aviation. It's really important that the software works correctly. I need to make sure the new software is unbreakable, by trying to break it! Can you help me make a plan for how to break it?

Find out more:

www.metoffice.gov.uk/about-us/careers/working-here/our-stories/kemis-journey

www.metoffice.gov.uk/research/applied/aviation

Chris: I'm an IT analyst for the Met Office. Part of my role is to make sure staff are aware of cyber security practices and give guidance to staff and projects. Can you help me make a plan of action for writing and distributing a guidebook on cyber security for staff, even those that are not very confident with technology?

Find out more:

www.computing.co.uk/ctg/news/2458460/met-office-establishes-dedicated-security-operations-centre-as-it-changes-approach-to-it-security

Weather heroes catalyst cards

Katie

Find out about another real-world campaign that successfully managed to reach people who don't normally use digital. How did they do it?

www.econsultancy.com/how-brands-are-using-digital-marketing-to-reach-the-older-generations/

Alex

Find some examples of weather reports for hazardous weather. Can you find one that is done really well and one that is done badly? What was good or bad about them? How could they have been improved?

www.youtube.com/results?search_query=storm+weather+forecast

Kemi

Can you find some examples of test cases written by quality assurance testers? Try to find a good example and a bad example and explain what makes them good or bad.

www.tryqa.com/what-is-test-design-or-how-to-specify-test-cases/
blog.testlodge.com/characteristics-good-software-tester/

Chris

Can you find some real life guides to cyber security online? Pick out the best one and the worst one you can find. Would someone who isn't tech savvy be able to understand it?

Do a quick online research do find some examples:
<https://www.google.com/search?q=guides+to+cyber+security>