WILDFIRES IN BANNAU BRYCHEINIOG

SUPPORT MATERIALS

If you need further support on specific aspects of outdoor learning these materials can enhance the engaging experiences you are providing. They can support you as you design, plan and implement your curriculum. Outdoor learning is a great way to develop learners' integral skills (creativity and innovation, critical thinking and problem-solving, personal effectiveness, planning and organising). You will want to focus on why learning matters and ensure you are meeting your learners' needs.
These materials show a path that could be taken through the activity. This is not meant to be prescriptive. You should adapt your approach depending on your learners' needs and interests and your local area.

OVERVIEW

Learners find out more about the causes of wildfires and how we try and put them out. They consider the Fire Triangle and how we can use this to think of ways to extinguish wildfires. Learners consider the impacts of wildfires on people and nature by imagining they are on holiday when a wildfire affects their community and look at different perspectives of others caught up in a wildfire. They consider how the natural world is affected by wildfires. Learners consider how to take action to solve the issues found around wildfires. They focus on one issue and consider and plan what action they could take to help solve the problem. Learners follow their plan, monitor progress, reflect on the process, considering what worked and what didn't, before exploring how they might share their actions to a wider audience.

CURRICULUM FOR WALES

Areas explored:

- Expressive Arts
- Health and Well-being
- Humanities
- Languages, Literacy and Communication
- Science and Technology

Activity also incorporates aspects of cross-curricular skills outlined in the LNF and DCF.

RESOURCES

Internet enabled device and internet access.
Means of taking photographs, video and/or audio clips of evidence of their campaign.

DOING THE ACTIVITY

- Most tasks require learners to work in pairs or groups.
- Encourage learners to share their ideas, and through open questioning, explain and justify their ideas when possible. Focus questions have been suggested to guide learners through the tasks.
- To access the scale in Google maps, click on 'View larger map'.
- When taking learners outdoors, it is essential that the Countryside Code is adhered to and any relevant risk assessments have been carried out with risks mitigated.

TASK 1

WHAT ARE THE CAUSES OF WILDFIRES?

Explain to learners that this task should help them to understand more the causes of wildfires and how we try and put them out.

Screen 3

Ask learners to consider the questions posed to interrogate the image.

Focus questions

- What is happening here? Why do you think this?
- Have you seen anything like this before? Where? When?

Screen 4

This screen gives some causes of wildfires. Ask learners to sort the causes into natural causes, could be natural and/or humans causes or caused by humans.

Screen 5

Ask pairs of learners to consider the causes they selected for the middle column in the table - could be natural and/or humans causes. Then, to discuss with a partner - How can some causes be both natural and caused by humans?

Screen 6

Explain to learners that they will go outside to find local areas of land that could be at risk of a wildfire. Before they do, ask them to study the map to decide which areas of land they will need to visit and discuss the questions posed.

Focus questions

- What features of land would make it easy for a wildfire to take hold?
- Where on the map would you find land with these features?
- What could start each of the wildfires on these areas of land? Why?

Screen 7

Take learners outside to observe each area of land for features that would help a wildfire to start.

Screen 8

Invite learners to think about what they have found out about the areas of land and the risks of wildfires, and select one area that they think is most at risk. Then, to design a poster to warn others of the wildfire risks on that land.

Screen 9

Show the video (just over 2 minutes) and ask learners to read the report: COP26: Wildfires and flooding prompt Welsh firefighter warning.

Explain to them that Craig Hope talks about 3 key conditions that lead to wildfires. Ask learners to attach each condition to its definition onscreen.

Screen 10

Explain that in the video and text, Craig Hope discusses how he thinks climate change will affect wildfires in Wales. Ask learners to discuss the questions posed.

Focus questions

- What are the changes we can expect because of climate change?
- How do you think climate change will affect the weather in Wales?
- How might changes to weather patterns impact the number and size of wildfires in Wales?

Screen 11

Ask learners to consider the Fire Triangle – fuel, oxygen and heat - the three things needed for a fire to stay alight. Invite them to discuss the questions posed and select the correct part of the fire triangle to its means of extinguishing a fire.

Screen 12

Ask learners to discuss the questions posed about putting out wildfires using information from the Fire Triangle.

Focus questions

- Of the three methods to put out fires from the previous screen:
  - smother it with a blanket
  - use a fire extinguisher filled with CO_2
  - hose it with plenty of water

  which one do you think would be most useful when tackling a large wildfire?
- Why? How do you think this could be done?

Screen 13

Show the video: Firefighters tackle Brecon Beacons grass fire (about one and a half minutes). Ask learners to discuss the questions posed.

Focus questions

- What strategies and equipment are firefighters using to tackle the wildfires?
- Referring to the Fire Triangle, what are firefighters trying to do?
- How are firefighters making decisions about their strategies?
- What else do you think they could try?
- Is the size of the fire(s) mentioned?
  - If so, what is the area?
- Are possible causes of the fire(s) mentioned?
  - If so, what are they?
  - If not, what do you think are the most likely causes?

Then, to carry out some internet research into other strategies firefighters use to tackle wildfires.

Screen 14

Wildfires cause a cycle that is difficult to break. Ask learners to complete the sentences to show this vicious cycle.

Screen 15

Ask learners to digitally create a flow chart showing the steps of this 'vicious cycle', selecting a graphic/symbol/icon for each step.

TASK 2

WHAT ARE THE CONSEQUENCES OF WILDFIRES?

Explain to learners that they will consider the impacts of wildfires on people and nature.

Screen 3

Ask learners to consider the scenario – imagining that a raging wildfire has taken place around the local community, lasting several days. People living there were told to evacuate to the leisure centre in a nearby town, where they stayed for 2 days and 2 nights.

Fire fighters have managed to extinguish the fire but have flooded some of the area in doing so. Several buildings, the surrounding farmland and the natural environment surrounding the area have been completely burnt.

Screen 4

Imagining that they live in the affected community but are on holiday and receive a message from friends/family telling you about the fire, ask learners to discuss the questions posed.

Focus questions

- How do you feel when you read the message?
- What would you do next? Why?
- What might you expect to see/experience when you get home?
- What do you need to do when you get home? Why?
- The impacts of wildfire are immediate but can have on-going, long-term effects. What longer term effects might the wildfire have on people and the local area?

Screen 5

Invite learners to consider the different perspectives of people and animals who may have been affected by the wildfire. Ask them to think about the immediate and long-term effects for the people described in the table.

Screen 6

Ask groups of learners, that each group member reads one of the news reports and make some notes.

Helicopter footage shows the awful scale of arson attacks in the Brecon Beacons – Wales Online

Fire wipes out wildlife habitat in the Brecon Beacons – BBC News

Then, to take it in turns to tell the group what the report was about, focussing on:

- Where did this take place? (Use Google Maps to find the location)
- When was the report written?
- What are the impacts of the wildfires mentioned in the reports?
- Who/what has been affected? How have they been affected?

Screen 7

Ask learners to click on the characters and consider the views of these learners. Then, to consider the questions posed.

Focus questions

- Which of these learners do you think makes the most powerful point? Why do you think that?
- What other point could you add to these regarding the impacts of wildfires?

Screen 8

Invite learners to create an infographic warning people of the impacts of wildfires.

TASK 3

WHAT CAN WE DO TO REDUCE THE NUMBER AND IMPACT OF WILDFIRES?

Explain to learners that they will now consider how to take action to solve the issues found around wildfires. They will deliver their plan to try and improve the situation.

Screen 3

Explain to learners that when people think that a law should be changed, they may create a petition. If the petition receives enough support, it is considered by the Petitions Committee at the Senydd. Ask them to consider the two examples and discuss the questions posed.

Focus questions

- Why were these petitions started?
- How many people signed each one? Do these numbers surprise you? Why?
- Were these petitions successful in bringing about change?
- Why do you think they were/were not successful?
- Would you have signed these petitions? Why or why not?

Screen 4

Explain to learners that starting/signing a petition against things like disposable barbeques and controlled burning is one way to take action to reduce the number of wildfires. Ask them to discuss the questions posed.

Focus questions

- How many other ways of taking action can you think of?
- What have people done in the past? Can you think of any new ideas?

Add some ideas and consider each one's pros and cons in the table.

Screen 5

Ask learners to read the article: Wildfires: Why they start and how they can be stopped

Explain that preventing wildfires from happening at all may be difficult in a future affected by climate change. Ask them to think about whether our focus should be more on reducing the impact and spread of wildfires rather than stopping them.

Then, to consider the actions to reduce the impact of wildfires and to add some of the pros and cons in the table.

Screen 6

Explain to learners that in a group, they will use the process shown onscreen to take action on wildfires. They can focus on preventing them or reducing their impact. Tell learners that they have already done some work on possible actions.

Ask them to discuss the questions to clarify their understanding of the issue.

Focus questions

- How would you explain the causes of wildfires?
- How can you draw a picture or a diagram that might help you understand the issue?
- How would you explain the impacts of wildfires?
- Do you have enough information to enable you to develop a plan? If not, what else do you need to know? Why? How will you find out?

Screen 7

Ask learners to brainstorm their ideas as to how they could take action on wildfires - just to come up with as many creative suggestions as possible.

Then, to look at all of their ideas and discuss the questions onscreen to help them to decide on the best and most workable idea they could consider.

Focus questions

- Which idea(s) are most achievable/realistic?
- Which idea(s) can we work together on without depending too much on adults?
- Which ideas get right to the cause(s) or impacts of wildfires?
- Which idea(s) are likely to have the outcomes you want?

Then, to try to agree on the best idea.

Screen 8

Provide learners with a simple sequencing map, which each individual learner should use to make a plan.

Screen 9

Invite each learner to explain their plan to the rest of the group. Ensure that nobody interrupts a learner whilst they are explaining their plan.

Ask each learner to listen carefully to the plans of their peers and to write down:

- Something they like about their plan.
- A suggestion that might make the plan better.
- A question about the plan.

After each person has introduced their plan, the other group members can give their comments and ask their questions. The group needs to choose one of the individual plans to put into action as a group. Try to make sure everybody in the group is in agreement!

Screen 10

Invite learners to put their plan into action. Prompt them to remember:

- Try to keep your plan simple, realistic and achievable.
- You might not change the world! This may just be a small, first step in something much bigger.
- Work together as a team. Collect evidence (photos, videos, sound recordings) of what you do along the way.
- Monitor how your plan is going along the way.
- Be flexible and change your plan if you see it is not working out.

Screen 11

Invite learners to put their plan into action.

Screen 12

Encourage learners to take their time to reflect and look back at what they have done and to consider what worked and what didn't. Explain to learners that this will enable them to predict relevant strategies to use to plan and take action on issues in the future. Invite them to discuss the questions posed.

Focus questions

- Which parts of the plan worked?
- Which parts of the plan didn't work as well? Why?
- How did you change the plan along the way? Did these changes help? How?
- What sort of impact have your actions had so far?
- How can you monitor how effective your actions are over the next few weeks/ months?
- What else could you do to take this further? How might this help?

Screen 13

Engage learners in the process of sharing evidence of their actions. Invite them to create either a poster; infographic; scrapbook or report about their action and to remember to explain and illustrate:

- What action(s) they took.
- The impact(s) of what they did.
- Any next steps they might take on this issue.

Screen 14

Encourage learners to explore how they might share their actions to a wider audience by following these steps.

- Find out how to get an article published in a local newspaper.
- Review articles already in the newspaper and write a list of common features.
- Write an article for the newspaper, using images.
- Send your article to the newspaper and ask for it to be published.