SPOTLIGHT x
THE FESTIVAL

SCIENCE

Remember the Introduction section must be completed first. The science presentation includes three different activities:
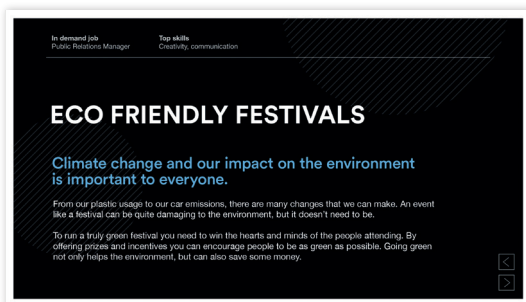
- Eco-Friendly Festivals
- Powering Your Festivals
- The Alternative Solutions

The following printable resources are needed:

- Environmental Proposal (A3)
- The Alternative Solutions (A5 or A4)

Each activity begins with a PowerPoint presentation that includes a group task and a follow-on resource to be carried out by students. It is a good idea to have these notes to hand for this section, as key facts are included to assist students with the **'How much do you know'** activity.

TOP TIP: Could you ask your local waste management company or other local eco-friencly businesses to talk to students about what they consider when reducing their carbon footprint

Eco-friendly Festivals   Slides 1–20

The purpose of this activity is to highlight the importance of making an event as environmentally friendly as possible, while also highlighting the current problems associated with outdoor events. Students will become aware of the simple changes that can be made to improve our impact on the environment. After the initial explanation slide, students can take part in a **climate change quiz** (this can be done as a whole class/group).
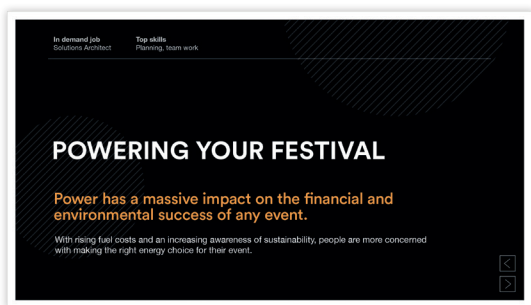
You will then need to distribute the **'Environmental Proposal'** resource. The resource includes six different aspects to a festival that can be harmful to the environment. Students need to think of alternative solutions and also ways in which they will promote these options to their guests (trying to encourage change).

> **Learning Objective**
>
> Climate change. Our impact on the environment.

Extension exercise: Why not task students to research eco-friendly festivals?
https://www.theguardian.com/environment/2019/feb/27/pollution-map-reveals-unsafe-air-quality-at-almost-2000-uk-sites
https://www.leeds-live.co.uk/news/leeds-news/dying-air-pollution-leeds-20-17635867

Powering Your Festival

The purpose of this activity is to make students aware of both renewable and non-renewable energy sources that can be used to power a large outdoor event. Students will be presented with information about non-renewable energy first and the harmful impact that it has on our environment. They will then be introduced to the renewable options. This is a really good opportunity to discuss students' views of this and any preconceived ideas. After the initial explanation, students will take part in a **group discussion task** called **'How much do you know?'** This short task is based on historic incidents that have occurred due to the production of non-renewable resources. To assist further with their understanding, the following information provides everything that you need to know:

The Chernobyl Disaster

- The Chernobyl disaster was a nuclear accident that occurred on Saturday, 26 April 1986, at the No. 4 nuclear reactor in the Chernobyl Nuclear Power Plant, near the city of Pripyat in the north of the Ukrainian SSR.

- It is considered the worst nuclear disaster in history and is one of only two nuclear energy disasters rated at seven—the maximum severity.

- The power unexpectedly dropped to a near-zero level at one moment. A large amount of energy was suddenly released, vaporising superheated cooling water and rupturing the reactor core in a highly destructive steam explosion. This was immediately followed by an open-air reactor core fire that released considerable airborne radioactive contamination for about nine days.

- In the accident's aftermath, 237 people suffered from acute radiation sickness, of whom 31 died within the first three months.

Deepwater Horizon

- The oil drilling rig, Deepwater Horizon, exploded just before 10 p.m. on 20 April 2010.

- The explosion was triggered when natural gas suddenly burst through a concrete core on the oil well. There were 126 workers on the rig at the time; 11 of them were killed by the blast, while 17 others were injured.

- As Deepwater Horizon sank, oil began flowing unrestrainedly into the Gulf of Mexico. Four million barrels would spill before the leak was fully capped on 15 July.

- According to studies, over one million birds died as a result of the Deepwater Horizon disaster.

Chilean Mining Accident

- The mining accident began on Thursday, 5 August 2010 with a cave-in at the San José copper–gold mine, located in northern Chile.

- Thirty-three men, trapped 700 meters (2,300 ft) underground and 5 kilometres (3 mi) from the mine's entrance via spiralling underground ramps, were rescued after 69 days.
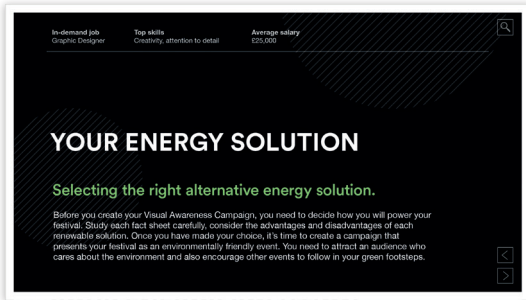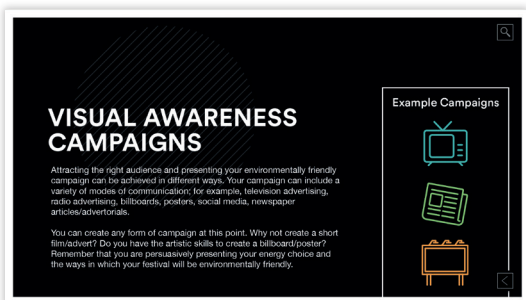
Your Energy Solution Slides 28–29

You will then need to distribute the resource entitled **'The Alternative Solutions'**. This resource is a comprehensive fact file for each of the named renewable energy resources. This is again, a good opportunity to discuss with students the areas that they already know and information that they weren't aware of. Students need to select the energy source that they would like to use to power their event. The next slide outlines the final task.

Learning Objective

Renewable/non-renewable energy solutions. Natural disasters.

Visual Awareness Campaigns Slides 30–31

Finally, students will create their awareness campaign, which advertises and highlights their chosen energy solution. This final task incorporates skills learned in the English advertising task, social media task and the wide range of information gathered throughout the programme. Students can create a form of campaign of their choice: radio, television, posters, articles. This is an ideal opportunity to extend the task into future lessons, giving students additional time to create a broad advertising campaign for their festival, focusing on their eco-friendly elements.

Learning Objective

Modes of communication. Environmentally friendly energy sources.