

English Home Learning

Summer 2 – Week 3 (wb 15th June 2020)

Water is very powerful! As part of our project on *Water*, this week we will be looking at the creative power of water. We will look at hydro-electric, tidal and wave power. We will create a **fact file** showing how electricity is generated using diagrams.

We have split the ideas into five different sessions, but this is only a guide. Please feel free to adjust the sessions so that they fit into your household timetable.

We would love to see and read your fact files. If you are able to take a photo or upload your fact file to Google Classrooms, that would be great!

SESSION 1

Water Power:

Water is a very powerful resource. We have been using water to create power for centuries.

Please watch this short video (2mins23) which shows you how a water wheel works:

<https://www.bbc.co.uk/programmes/p011lz9d>

See if you can make some notes or draw a quick diagram to show how the water wheel works.

SESSION 2

Using water to turn on the lights!

Water is a very powerful resource. Did you know that water can be used to create electricity?

Water passes through a turbine, which spins, generating electricity for us to use in our homes. It is a type of **renewable energy** because water doesn't run out – you can use it over and over again.

[Some other ways we make electricity are **not** renewable because they run out – like burning coal or gas to make electricity. These ways of generating electricity can also produce a lot of pollution.]

Please read the following article about the 3 ways we can make electricity by using the power of water:

<http://www.bbc.co.uk/climate/adaptation/water.shtml>

SESSION 3

In the last session, we read an article about the 3 ways we can make electricity by using the power of water:

- 1) hydro-electric power – building a dam to block the water and let it build up in a reservoir...and then letting it go suddenly with great force over a turbine (which spins)
- 2) tidal power – using our natural tidal system (caused by the gravitation pull of the moon) to drive/spin a turbine
- 3) wave power – building pipes or sea dams for the water to go in and drive/spin a turbine.

Please watch this short video to show you these 3 ways in real life:

<https://www.bbc.co.uk/bitesize/clips/z9t9mp3>

SESSION 4

Which of the 3 methods of making electricity did you like the most?

There seems to be lots of great ways to make electricity in this country (as we have lots of water available) so, why don't we make **all** of our electricity this way? Can you think of 2 reasons why it can be bad to make electricity using water?

[Possible answer/reason: it can be expensive and can cause harm to habitats – as water that flowed through a habitat may now be blocked by a dam].

Choose one of the methods of using water power to make a fact file. Think about how you are going to present your fact file to us:

- are you going to make some notes and record a video of yourself to post on the Google Classroom?
- are you going to make a powerpoint presentation?
- are you going to make a poster or a booklet?
- are you going to mostly use drawings or diagrams?

SESSION 5

Now it's time to produce your fact file.

Whichever way you have chosen to present your fact file, there are things you need to remember:

- ⇒ neat drawings, diagrams and writing
- ⇒ clear presentation (facts not opinions)
- ⇒ edit your work – read it out loud or practice it first – does it make sense? Is it too long? Is it too short?

[If you make a video or presentation – no more than 5 minutes maximum please.]

Finally, post your fact file on our Google Classroom – we love to see your work and to know how you are getting on. This will help you feel connected with your year group. 😊

CHALLENGE

- ⇒ Can you research different uses of water power? [In mills for example.]
- ⇒ Can you build a cardboard or 3-D model?
- ⇒ Can you look at all the disadvantages of water power and the affects this can have on habitats – for both wildlife and plants?
- ⇒ Can you write a story from an animal's point of view? The animal may have lived in an ideal habitat, but now the water that flowed freely through its habitat (home) may be blocked further upstream by a dam. How does the animal feel about this? What will it do? How does it survive? Can it adapt to the new environment or will it have to move?