

Teacher's notes for The Ardnacrusha Experience

The Ardnacrusha Experience is made up of seven sections (six if the weather is unsuitable to go up in the dam) and takes about 90 minutes. To encourage children to engage with all aspects of the tour, ESB has created a number of worksheets aimed at 3rd - 6th class pupils. As you are guided through the various structures, graphics, engineering, artefacts, posters and artworks on display each child will have the chance to engage with the content without being overloaded. After the event your class can then use these worksheets as the basis or stimulus for a project on their visit or even a new project to submit to ESB Science Blast. No matter what your own level of knowledge or background is, the Ardnacrusha Experience will be one to remember.

The worksheets are set up to be completed by the children working in four teams. Specifically, there are four team worksheets for 3rd/4th class and four team worksheets for 5th/6th class. Each worksheet focuses on two sections of the tour. The logic being that the children aren't overwhelmed by having to answer too many questions and have time to focus on the tour while they are there. It also allows for the teams to share what information they have gathered when they return to the classroom and together the whole class will have a complete overview of all the sections of the Ardnacrusha Experience.

Suggested pre-trip activities:

Show the class videos and pictures of Ardnacrusha available at

<https://esb.ie/tns/brighter-future/brighter-future> / <https://www.youtube.com/channel/UCoS3-VbigK0jOkRjERjBoKQ>

Download worksheets from ESB Ardnacrusha Experience website

www.esb.ie/ardnacrusha-tours

Talk to the children about electricity and where it comes from and how it is generated.

Start a class discussion about the importance of moving towards a low carbon, greener future and how using renewable energy sources such as hydroelectric power are better for the environment.

Have the children brainstorm questions and things they would like to learn before they come to the Ardnacrusha Experience.

Explain the different sections they will go through on the tour and how they will be working in teams in order to gather information.

Show copies of the worksheets to the children before they come to prime them for their task.

Suggested ways to use the worksheets:

- Divide your class into teams and give a copy of either Worksheet 1, 2, 3 or 4 to each team and tell them to pay attention to what section they are in so they know when to gather information and complete their worksheet.
- Divide the class into teams and give each team all four teams Worksheets (1, 2, 3 & 4). Tell the team members they are to work together to complete all four sheets with each pupil in the team having a chance to hold on to a sheet and be responsible for directing their teammates on what information they have to gather per section. This will give one child per team a chance to take the lead in completing the worksheet.

- For an added challenge for independent students and early finishers, feel free to give them extra worksheets to complete or have them act as helpers checking how other teams are doing.

Suggested follow-up activities:

Write a report about the visit to the Ardnacrusha Experience including what they saw, the different parts of the tour, some history about Ardnacrusha and information about how it makes electricity.

Create a poster or leaflet inspired by, or in the style of, the posters and leaflets seen at Ardnacrusha. These could be old-fashioned advertisements or modern versions advertising aspects of the low carbon Brighter Future of ESB such as e-cars, heat pumps, solar and wind energy. (Pictures of old ESB advertising material is available online at <https://esbarchives.ie/>)

Create a 3D model of Ardnacrusha or a new imagined wind or hydroelectric power station using cardboard boxes, toilet roll tubes, crepe paper etc.

Ardnacrusha Experience curriculum links:

Subject	Strand	Strand Unit
Science	Energy and forces Materials Environmental awareness and care Living things	Magnetism and electricity Forces Properties and characteristics of materials Environmental awareness Science and the environment Caring for the environment Plant and animal life
History	Local studies Continuity and change over time	Buildings, sites or ruins in my locality Homes My locality through the ages Homes, housing and urban developments Homes and houses
Geography	Human environments Natural environments Environmental awareness and care	County, regional and national centres Land, rivers and seas of my county The local natural environment Environmental awareness Caring for the environment
Maths	Shape and space	2-D shapes 3-D shapes