

CASE STUDY 7: MINING

CASE STUDY DETAILS

Key Skill Subjects:

Geography
Mining
Geology
Industrial Processes

Duration:

1 Day ✓
2 Day ✓
3 Day ✓
5 Day ✗

Locations:

Multi – location

Accessibility:

Coastal Section ✧
Tidal Dependant ✧
Steps ✓
Unmade Footpath ✓
Open Moorland ✗
Steep Gradients ✓
Former Industrial Site ✓
Mine / Underground ✓
Weather Dependant ✓

Optional Extras:

Mine Tour
Tin streaming museum
Tin processing museum

Key To Symbols:

Yes: ✓
No: ✗
Optional: ✧



Children watching a chimney fire reconstruction

In this module we visit the heart of Cornwall's World Heritage Site. We will develop a detailed understanding of the geology and geography of the area, and relate this to why the mines were built in the first place. We then look at a history of the sites and discover the environmental impacts of mining on such an intense scale with little or no regard for the environment.

We would normally start off at the beach, where we look at the rocks which contain the minerals. We look at a site which is recognised as being special because of the rocks contained there, and may find samples of minerals, containing metals such as tin, copper, tungsten and silver.

We then move inland to look at the geography which made Cornish mining possible. How did the early miners keep the mines free from water, and what about ventilation?

We look at early metal recovery processes which were used as recently as 30 years ago which did not even involve going underground to recover metal!

Students can then have a go at panning for gold at a local tourist attraction.



A working tin processing plant

We will look at the science in turning rock into metal and see some well-preserved machinery, which still works.

Students may visit a local mine and go underground to see how the ground was worked, to gain an appreciation of the skills and hard work involved.



An adult group on an underground tour

We then look at the environmental legacy of mining in the area. What are the environmental impacts

positive and negative? How do the processes we have seen up to this point directly effect the ground and the rivers in the area and what can be done about these effects. Students are encouraged to think of ways of reducing environmental risks, and a small environmental impact assessment is normally undertaken at this stage.