

GEOSCIENCE FOR LEAVING CERTIFICATE GEOGRAPHY

Continuing Professional Development Course 2021



WHAT LIES BENEATH? LESSON PLAN

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SFI RESEARCH CENTRE
IN APPLIED GEOSCIENCES



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Lesson plan: Introduction to rock identification

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Lesson plan: Introduction to online rock identification using the Geological Survey Ireland map viewer

Links to curriculum

Core unit 1 Tectonic cycle

- Seismic activity and measurements of seismic activity

Learning Outcomes

Students should be able to:

- Navigate the Geological Survey Ireland map viewer website i.e. the layer list
- Be able to find their local area (geographical location) on the Ordnance survey map (accessed through the GSI map viewer)
- To become familiar with the different layers e.g. relief, bedrock etc
- Identify the different rock types in their area & across Ireland

Resources required

- Whiteboard
- Laptop/Device/Access to computer room
- Posters (optional)

Links required

- Geological Survey Ireland Map Viewer:
<https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbd2e2aac3c228>
- You may also want to watch the Geological Survey Ireland Map Viewer video tutorial before the lesson: <https://www.youtube.com/watch?v=gTKxX0cEL2U>

Literacy and Numeracy

- To assist with Literacy, you could put key terms up on the board. Flash cards would also be an option to use (Dependant on student's level) For example: bedrock, relief etc.
- To build on the student's computer literacy
- To assist with numeracy, the student can give a grid reference for their home or school location.



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Differentiation

- I will divide the class into pairs or groups depending on the number of devices available to the class. The groupings will be done strategically so everyone will be able to participate in class.
- Depending on the class ability specific tasks can be reduced down or increased.
- ***This class could just be a starter class before beginning rocks



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Teacher Notes



Introduction to teacher notes

This lesson provides a simple and accessible guide to learning about the different rocks in your local area. Students will learn about the geology of their area using maps, images and data from the Geological Survey Ireland website.

What's down there? An accessible guide to the ground beneath our feet

Lesson goal:

- To make geology accessible and recognise links to local information, features etc.

Content	Methodology
<p>Introduction [10 mins]</p> <p>What is GSI? Hands up anybody who has heard of GSI? What does it stand for?</p> 	<p>Introduce the objectives of the lesson (See Powerpoint Slide 2)</p> 
<p>Development</p> <p>[10 mins]</p> <p>Student Activity [15 mins]</p>	<p>Introduce the students to the GSI website www.gsi.ie</p> <p>Watch a short demo carried out by the teacher on the whiteboard- how to navigate the website</p> <p>(Optional) Opportunity to go over Ordnance Survey features/grid reference of local area, school, etc.</p> <p>Students familiarise themselves with the website</p> <p>Click on Data and Maps</p> <p>Click on Layer list</p> <ul style="list-style-type: none"> Click on Bedrock Geology 100k Shaded Relief

<p>2nd Activity (35 mins)</p>	<p>In pairs/groups find your local area/home/school/place you like to visit during the summer holidays etc</p> <p>Identify the rock type in these areas.</p> <p>Make a list that can be shared with the class.</p> <p>Do a screen grab of the image</p> <p>These can be sent to the teacher to be shown to the class or student's could present themselves (3 places they picked or 3 different rock types.)</p>
<p>Summary, Recap/Homework [5 mins]</p>	<p>I will summarise the key points of the lesson (Slide 3) and will finish with a slide listing the Learning Outcomes</p> <p>“At the end of this lesson you should be able to/ have learnt</p> <p>Homework: Print off their own map</p>