



Date	Class 5th and 6th	Subject Geography
Strand Human Environments		Strand Unit People and places
Title Marine explorers and scientists – learning about people and places		
Objective(s) The lesson provides students with an opportunity to learn about people and places in Ireland. With a focus on marine science and seismology, the students will learn about the type of work marine scientists and seismologists are involved with and the environments they work in. This lesson plan can be adapted to follow and study the life of any scientist on a scientific survey. Students can also learn about the people that work on the research vessel, the research vessel <i>RV Celtic Explorer</i> .		
Skills Required Listening, observation, questioning, reading, analysing, interpreting		
Learning Objectives The students will be able to: <ul style="list-style-type: none"> • Observe some of the different working environments of marine scientists • Learn about some of the marine science community and investigate who works in this environment • Become familiar with the work of a marine scientist on a research mission. • Learn about seismology and what kind of tasks the scientists will do on a seismic survey 	Learning Activities Preparation It is recommended to teach this lesson along with the English and Science lesson plans. Activity 1: Class Discussion Start a class discussion about the work of different marine scientists. Allow the class to brainstorm different ideas and come up with their own questions. Question ideas: <i>What are the different kinds of jobs a marine scientist can do?</i> <i>Where are some places that a marine scientist can work? (eg. On a ship, in a laboratory, in an office, on the seashore).</i> <i>What do seismologists study?</i> Activity 2: Observing and Recording Arrange an interview with a seismologist via email where the class can ask him questions about his life as a scientist and fill out the worksheet provided. Complete the activity worksheet 2 provided with	



	<p>the students.</p> <p>Activity 3:</p> <p>Take an online virtual tour of The Celtic Explorer via the Marine Institute website. Complete the worksheet provided as a group activity – Find the place where people that work on the research vessel carry out their research, where they eat and sleep, where the Captain...”</p> <p>Development Activity</p> <p>Visit the blog scientists@sea where students can see what life is like for a real explorer and researcher aboard a research vessel.</p> <p>Take an online virtual tour of The Celtic Explorer via the Marine Institute website. Complete the worksheet provided as a group activity – “find the place where...”</p> <p>Follow the RV <i>Celtic Explorer</i> Track A Vessel weblink via the Marine Institute website.</p> <p>Imagine you are on an expedition and write a blog post of a day at sea.</p> <hr/> <p>Resources</p> <p>Follow the SEA-SEIS Expedition at https://sea-seis.ie/ This link provides short animated videos of content that teachers can use to help explain seismic activity.</p> <p>Check the Explorers Education vimeo channel for content posted about the SEA-SEIS Expedition and other surveys: https://vimeo.com/explorerseducation/videos</p> <p>Check out the Marine Institute blog posts at http://scientistsatsea.blogspot.com/ This provides blogs by scientists that have been on expeditions on the RV Celtic Explorer.</p> <p>Also see CoastMonkey Sea Diary for an update by the outreach specialist on board the research vessel: http://coastmonkey.ie/sea-diary-celtic-explorer/</p> <p>Track the RV <i>Celtic Explorer</i> out on its survey via</p>
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	<p>the Track A Vessel weblink: https://www.marine.ie/Home/site-area/infrastructure-facilities/research-vessels/track-vessel?language=en</p> <p>Imagine what life is like on a research vessel by exploring the online virtual tour of The Celtic Explorer via the Marine Institute website: https://www.marine.ie/Home/sites/default/files/VirtualTour/index.htm?language=en</p>
<p>Differentiation Higher and lower order questioning, ability oriented tasks.</p>	
<p>Assessment Teacher Observation and Questioning</p>	
<p>Linkage and Integration English - Writing - Emotional and imaginative development through language; Competence and confidence in using language, etc English - Reading - Receptiveness to language; SPHE - Myself and the wider world - Media Education ICT- To develop and use ICT skills in the attainment of curriculum learning objectives.</p>	



Activity 2: Worksheet - Marine explorers and scientists

1. What type of scientist is seismologists?
2. What is his role on the expedition as a scientist?
3. What is the name of the research vessel used for this expedition?
4. How big is Ireland's offshore territory?
5. What are some geological features that can be seen beneath Ireland's ocean? (e.g. volcanos)
6. What equipment do Dr Sergei and his team use to record the vibrations in the earth's crust?
7. What is seismology?
8. What causes the vibrations in the earth's crust?
9. How far down can the ocean bottom seismometers travel underwater?
10. How long do the scientists leave the ocean bottom seismometers on the ocean floor?