

# SDG14 Future of the Ocean

## MM1: Introduction to Ocean Literacy



### MM1: Introduction to Ocean Literacy

### Research and Development

### Lesson 2: Ocean Connection

**Subject Areas: CSPE, Climate Action and Sustainability, Geography, Science, SPHE**

#### **Lesson Title and Summary: Ocean Connection**

In this lesson, learners are encouraged to use observation skills to understand the interconnections between the land and ocean interface and human and ocean interface and further understand our influence on the ocean. Using inquiry-based learning techniques, the learners will become more ocean literate, as they understand the ocean network and the importance of knowing the interconnections between land and sea, and the ocean network.

*This lesson includes a task to be undertaken at a local shoreline. If you do not live near the coast, please see Option B in the Extension Box.*

#### **Vocabulary: Connection, Interconnectedness, Ocean Literacy**

#### **In this lesson, the learner will:**

- increase their ocean literacy skills
- develop observation skills through outdoor
- develop inquiry-based thinking skills
- develop critical-thinking skills
- share knowledge; learners will practice independent & group work

#### **Materials**

- Worksheet: Connecting to the ocean
- Worksheet: Guided Observation
- Worksheet: The Blue Mind - Ocean Connection
- Teacher's Guide: Connecting to the ocean
- Pen, pencil, colouring pens & paper
- Notebooks
- Post it notes

**3** GOOD HEALTH AND WELL-BEING



**11** SUSTAINABLE CITIES AND COMMUNITIES



**13** CLIMATE ACTION



**17** PARTNERSHIPS FOR THE GOALS



# MM1: Introduction to Ocean Literacy

## L2: Ocean Connection



### Activity Instructions

*This lesson includes a task to be undertaken at a local shoreline. If you do not live near the coast, complete the alternative task for Activity 2- see Extension Box.*

#### Activity 1: Connecting to the Ocean (10 mins)

1. In small groups, use the following questions to further discussion on ocean literacy and begin to consolidate the idea of ocean connection. Share ideas as a whole class. Use Worksheet: Connecting to the Ocean.
  - How is the ocean important to me? What is my personal connection to the ocean?
  - How is the ocean important to my community? My country? The world?
  - What is the best way to communicate the importance of the ocean to people our age?
  - What decisions can I make today to be a better steward for our ocean?

#### Activity 2: Guided Observation (40 mins)

1. If you are a short walking distance to the ocean / seashore, take learners with Worksheet: Guided Observation and a pen / pencil. Ask learners to find a space to stand or sit on the shore and close their eyes:
  - Observation 1: spend 30 seconds in silence- what can they hear, smell, feel?
  - Observation 2: in the middle of the circle, draw or write what they observe right in close around them (2 minutes).
  - Observation 3: around the middle of the circle, draw or write what they observe 5m around them (2 minutes).
  - Observation 4: at the next stage of their circle, draw or write what they observe 20m around them (2 minutes).
  - Observation 5: at the outer part of their circle, draw or write what they observe all around them, including the sky and land.
3. In pairs, share their observations.
4. Join pairs together to identify any interconnectedness in their observations and any issues.

### REFLECTIVE EXERCISE: 3-2-1 (10 mins)

- Three things they feel they have learnt from the tasks
- Two things they found most interesting and would like to explore more
- One opinion they have about the activities, what did they like or how they would improve them

Use Post-its or a Mentimeter survey - [mentimeter.com](https://www.mentimeter.com) to gather reflections

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## L2: Ocean Connection



### EXTENSION / REDUCTION ACTIVITIES

Reduction: For a shorter class, complete Activity 1 and use the Option B task below.

Extension: For a longer class, extend the discussion time in Activity 1 and ask students to work in pairs to present interconnections discovered in the guided observation in Activity 2.

#### Option B: If your school is not close to a shoreline (replace Activity 2)

1. Complete a short Blue Mind mindfulness exercise.
2. Use Worksheet: The Blue Mind- Ocean Connection

### MEDIA BOX: (materials, online video links, extra resources, case studies etc)

Video: Fair Seas speaks with diver Michael O'Donnell about Marine Protected Areas in Ireland [1:01 mins] <https://youtu.be/9a8jXHNNk0A?si=GGh88jokayFW3HGu>

Video: The Ocean Connection | Official Trailer | Honnavara | Olive Ridley Sea Turtle [1:22 mins] [https://youtu.be/n4DzQPL4D8I?si=9d94AcPR4v\\_dAZH0](https://youtu.be/n4DzQPL4D8I?si=9d94AcPR4v_dAZH0)

Video: Blue Mind: Why the Ocean is Good For You [1:44 mins] <https://youtu.be/0dgNVSv1qpw?si=ObYuEdNgfWoX-dVv>

Website: Orca Ireland <https://orcaireland.org/meet-a-marine-biologist>

### Local Trip / Expertise / Additional Work and Assessments

Contact Orca Ireland see media box to arrange a 'Meet with a Marine Biologist' and either invite one to the school or arrange a virtual meet for an interview - see Media Communications 4: Audio for supporting materials on creating interview questions.

Visit a local marine awareness centre / aquarium or local beach with marine biologist.

If you are able to complete the guided observation activity, extend the guided observation task by completing it 2-3 more times over the month. Ask learners to note the patterns or changes in their observations.



### Connecting to the ocean Activity 1

What do we get from the ocean? Why is it important to us? From vital nutrients to the blue economy and recreation, it has been shown that living on or near water can make you happier and healthier. The ocean has made the earth habitable – without the action of the ocean, life on this planet would not be possible. In fact, the three core requirements for human life are provided for by the ocean:

- oxygen to breathe
- freshwater to drink
- food to eat

Every second breath you take comes from the ocean. It's created by phytoplankton – tiny plants that float in the surface waters of our oceans – these bloom seasonally just like terrestrial plants when conditions are right and are the basis for most food webs in the ocean. These little guys are responsible for 50% of the world's oxygen – with seaweeds and other marine algae providing approx. another 25%.

The ocean also drives the water cycle – a process that provides us with freshwater through evaporation (where the surface water of the Earth heats up and turns to steam) , condensation (as the steam rises it forms clouds) and precipitation (rain). 97% of the water on Earth is seawater and over 70% of this planet is covered by the ocean which means without the ocean, freshwater would be in much shorter supply.

Take the Irish seaweed carrageen for example, this can be found in everyday products like your toothpaste, ice-cream, ketchup and peanut butter. Traditionally it was used as a treatment for coughs and colds. Seaweeds are used as a supplement that is fed to our top racehorses, soaked in our baths and added to our beauty products. Traditionally it was used as a fertilizer in our gardens, so many of our grandparent's cabbage would have had ocean nutrients in its DNA.

Learning just a little more about the ocean, becoming ocean literate, is the first place to start. The ocean really is the blue heart of our planet; studies have shown that just being beside the ocean makes us happier and healthier, reduces stress and anxiety and increases creativity and confidence. For all we get from our ocean, it deserves a little care from us!



## Activity 1

In small groups, discuss the following questions. Nominate one person in the group to be the notetaker, who will record the main ideas of the discussion.

1. How is the ocean important to me? What is my personal connection to the ocean?
2. How is the ocean important to my community? My country? The world?
3. What is the best way to communicate the importance of the ocean to people our age?
4. What decisions can I make today to be a better steward for our ocean?

1

2

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Nominate one person in the group to be the spokesperson. They will share the main ideas that the notetaker recorded during the discussion.



## Activity 2

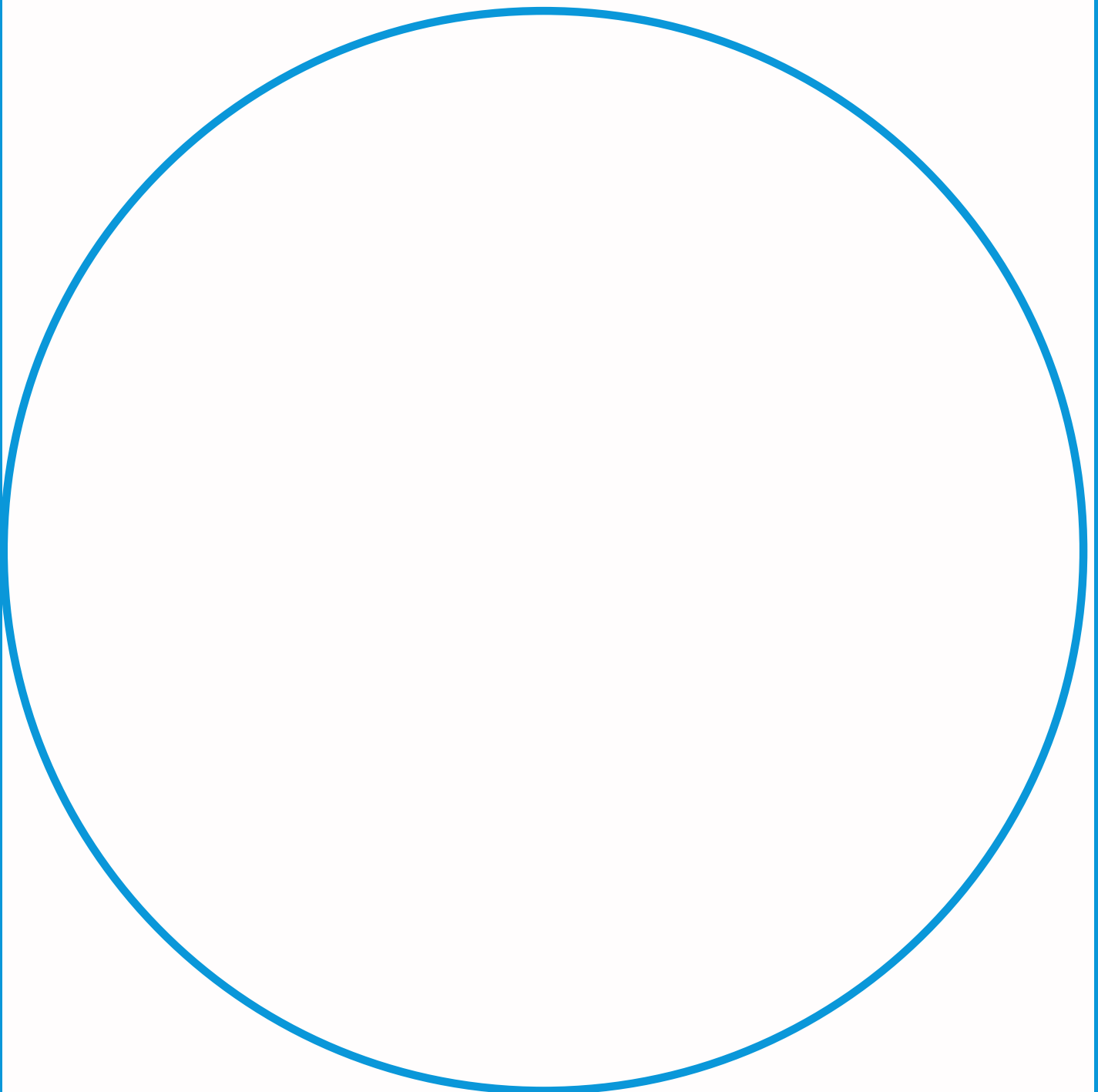
Observation 1: what can you hear, smell, feel?

Observation 2: middle of the circle: what do you observe right next to you?

Observation 3: around the middle of the circle: what do you observe 5m around you?

Observation 4: at the next stage of the circle: what do you observe 20m around you?

Observation 5: at the outer part of their circle: what do you observe all around you, including the sky and land?





### Discuss the following questions with a partner:

- What are your experiences with the ocean?
- Describe a memory you have with the ocean in it.
- Would you say you feel connected to the ocean? Why/why not?

### How can we connect to the ocean?

1. Brainstorm with your partner how people who live far from the ocean could feel connected to it.
2. Select 2-3 ideas from your list. These ideas are the ones you are going to present to the class as ways of connecting to the ocean, even when you don't live near it.
3. Make notes on these key areas: xx, xx, xx. You can use the internet to help build your ideas.

### Presenting ideas

1. Take it in turns to present your ideas on connecting to the ocean to the class.
2. While you are listening to the other pairs present, think of one question to ask them.
3. In between presentations, ask your questions.