

Aim and introduction

Shipping is one of the biggest polluters in the world. The whole industry is looking at ways to reduce the consumption of energy not only to help with carbon emissions but also to keep costs low for their customers as the price of fuel increases. This lesson looks at the different options in making shipping more sustainable using different examples including from Oman. It has been designed to encourage collaboration and focus on solutions through a geographical lens.

This lesson will take between 45 minutes to 1 hour to complete. NOTE: the infographic can be set for homework or this lesson could be extended into 2 so that it can be completed in class.

Curriculum links

Human geography relating to: population and urbanisation; international development; economic activity in the primary, secondary, tertiary and quaternary sectors; and the use of natural resources

Learning goals

1. Identify and justify the biggest impact of shipping for people and / or the environment.
2. Synthesise information to assess some solutions to the issues.
3. Consolidate learning by clearly presenting ideas in an accessible format.

Learning outcomes

Greater depth: pupils will be able to apply their understanding from previous learning using relevant examples to support their points. They will be able to synthesise information to fit with their own solutions to the issues being presented and show these in a clear and coherent way. Their solutions will be well considered using evidence to support their point of view.

Expected level: pupils will be able to apply understanding from previous learning using examples to support their points. They will be able to use information to fit with potential solutions to the issues being presented and show these in a mostly coherent way. Their solutions will use some evidence to support their point of view.

Working towards: pupils will be able to apply understanding from previous learning, there may be some examples used but not consistently or necessarily accurately. They will be able to find information to fit with potential solutions, some of these might not match fully and / or presented coherently. Their solutions may use evidence to support their point of view; this might not be accurate.

Support: with guidance, pupils will be able to apply understanding from previous learning; there may be some examples used but not consistently or necessarily accurately. They will be able to find information with support to fit with potential solutions, some of these might not fully match with the initial issue being presented. Their solutions most likely won't use evidence to support their point of view and some conclusions drawn might not be accurate.



Key terms

- Sustainable
- Shipping
- Carbon
- Emissions
- E-waste
- Green energy
- Rotor sails
- Weather routing
- Constant velocity
- Fuel saving
- Policies

Learning resources

- Teacher presentation: Futures
- Carousel sheet and resources (NOTE: all information for each activity can found either before the activity or within the activity itself).

What you will need

- Devices such as laptops or tablets to play the video on.
- Pencils, pens and highlighters.

Challenge and support

Starter

Pupils reflect on the previous lessons' learning by identifying which they feel is the biggest impact of shipping to people and / or the environment in Oman. There is an option to answer an examination style question to challenge pupils and give them some exposure to this style of assessment. Alternatively, there is an option for a class vote with verbal justification of ideas.

Main

Divide the class into small groups of between 3-4 pupils per group. They work together to complete a carousel activity to identify different ways to manage shipping in and around Oman for a more sustainable future.

Plenary

Using the information from the carousel, pupils then design their own infographic to present to the Sultanate of Oman drawing together issues in shipping and potential solutions. To support, examples of infographics have been added to the slide.