

COPERNICUS AND SPACE

1. Copernicus is the European Union's Earth Observation Programme, looking at our planet and its environment for the ultimate benefit of all European citizens. It offers information services based on satellite Earth Observation and in situ (non-space) data.

It has a thematic focus on six different areas: Atmosphere, Marine, Land, Climate Change, Security, and Emergency.

What benefits do you think this programme can provide? Discuss with a partner or in small groups and write down your ideas.

2. Climate change is a thematic focus of Copernicus. How do you think monitoring the Earth's surface can help us tackle climate change?

- It improves our ability to monitor, forecast and make projections about the changing climate.
- It allows us to identify natural resources like sunlight, water, wind and waves, and harness their power to develop renewable energy sources, thereby decreasing our reliance on fossil fuels.
- It permits us to develop effective strategies for **mitigation** (minimising the negative effects of climate change) and **adaptation** (reducing our vulnerability to the effects of a changing climate).
- It gives us up-to-date information on the speed of polar sea ice change, Earth's natural defence mechanism regulating the temperature of our oceans and the atmosphere.
- It provides continuous and reliable information on the extent and effects of sea level rise, which can have major effects on global populations.
- None of the above.
- All of the above.

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3. Take a look at the Copernicus Programme's logo. What do you think the design symbolises? Why do you think it was named Copernicus?



Handwriting lines for student response to question 3.

4. Take a look at the 'Anders Earhrise photo', taken by the astronaut William Anders on 24 December 1968, during the Apollo 8 mission.

- a) As a class, discuss why this photo is considered one of the most influential environmental photographs ever taken.
- b) In pairs or small groups, list the different ways in which you think different parts of the planet may affect each other directly. Think about natural processes and human activity.



Handwriting lines for student response to question 4.