

Age 8+

Duration

30  
mins

Location

INDOORS

# DESIGN A SUSTAINABLE BOAT

## DID YOU KNOW?

The MS Tûranor PlanetSolar is the largest solar boat in the world operating solely on solar energy captured by its 512m<sup>2</sup> of solar panels.

**TASK:** To design a boat with sustainable features, labelled to explain how each feature minimises the impact on the environment.

**RESOURCES:** Plain A4 paper | Colouring pencils and pens.

## INSTRUCTIONS

1. Provide each participant with a plain sheet of A4 paper
2. Ask participants to design their own boat with six key sustainable features drawn and labelled. Participants must describe what the feature is and explain how it makes the boat more sustainable.
3. Encourage creativity, clarity and colour!
4. When finished, ask participants to pair up and show and tell each other about their designs.
5. Ask participants to talk to the rest of the group about any interesting features of their partner's design.

## PROMPTS IF STUCK FOR IDEAS

- a) Energy - electric engine, hybrid engine, renewable energy
- b) Water - collecting rainwater to filter and use on board
- c) Sewage waste - bio-digester (converts to compost for plants) or dispose of using a pump out system
- d) Waste greywater - closed loop filter that converts waste water to usable water (but not for drinking!)
- e) Cleaning products - phosphate free, natural products or maybe a new gadget that will clean the hull
- f) Hull design - aqua dynamic, travels faster through water and uses less engine fuel. Hull made from shark skin type material which is an unstable surface and prevents organisms attaching (these organisms would normally cause the boat to drag through the water and reduce speed/use more fuel)
- g) Noise pollution - use sails only or an electric engine

