Rapid increase in amount of algae and bacteria that decompose it. Oxygen is removed from water. Remove 1 **blue** and 1 **pink** block.	Changes in ocean currents causes phytoplankton to disperse and become sparser. Remove 2 **green** blocks.	Increase in atmospheric CO_2 leads to increased ocean acidification. Remove 2 **pink** blocks.
Successful beach clean – up ensures algae is at a healthy level and enough oxygen is available for aquatic animals. Put back 1 **blue** block.	Amount of sunlight reaching phytoplankton increases, increasing photosynthesis and phytoplankton growth. Put back 1 **green** block.	Increase in storms causes increase in pollution from storm drains. Remove 1 **green** and 1 **blue** block.
Chemical spill in watershed (area drained by a river and its tributaries). Remove 1 **green**, 1 **blue** and 1 **pink** block.	Layer of smog reduces photosynthesis causing a reduction in phytoplankton. Remove 1 **green** block.	Oil spill in harbour. Remove 1 **green**, 1 **blue** and 1 **pink** block.
Increase in ocean temperature leads to smaller phytoplankton which cannot be used as food for zooplankton. Remove 1 **blue** and 1 **pink** block.	Whales leave the area to breed in warmer waters, allowing fish and krill populations to increase again. Put back 1 **pink** block.	Blue whales remain in area longer than usual due to rise in ocean temperature. Remove 1 **pink** block.
Changes in ocean currents reduce nutrients available to phytoplankton and zooplankton. Remove 1 **green** and 1 **blue** block.	Rise in ocean temperature impacts on all organisms in marine ecosystem. Remove 1 **green**, 1 **blue** and 1 **pink** block.	Rainwater influx into ocean reduces the concentration of phytoplankton. Remove 2 **green** blocks.

Introduction of invasive (non-native) zooplankton that reduce amount of phytoplankton and zooplankton. Remove 1 **green** block and put back 1 **blue** block.	Commercial fishing pressure is reduced. Replace 1 **pink** block.	A Marine Protected Area prevents the removal of fish and krill by fishermen. Replace 1 **pink** block.
Treatment of local sewage waste water is improved prior to release into ocean. Replace 1 **green** and 1 **blue** block.	Increased use of renewable energy reduces CO_2 from fossil fuels, slowing climate change and ocean acidification. Replace 1 **green** block.	Ecotourism and whale watching encourage locals to protect the ocean by reducing water pollution. Replace 1 **green** and 1 **blue** block.
Scientists notice and remove a non-native predatory fish species before it reproduces and impacts on native fish. Replace 1 **pink** block.		

Jenga colour codes:

- **Green** – phytoplankton
- **Blue** – zooplankton
- **Pink** – krill and fish
- Orange – whale

*Please leave spacing in place in document for ease of cutting

STEAM IN JUNIOR CYCLE

BIAZA
BRITISH & IRISH ASSOCIATION OF ZOOS & AQUARIUMS