

Extreme Earth: Tsunamis

Aim: Describe and understand key aspects of physical geography in the context of tsunamis. To explain what causes tsunamis and how they affect people.	Success Criteria: I can tell you where tsunamis happen. I can explain what causes a tsunami. I can describe the damage caused by a tsunami. I can tell you how to keep safe in a tsunami.	Resources: Lesson Pack Large plastic box (at least 40cm long, e.g. an under-bed storage box) Newspaper (scrunched into balls) Mud Model houses Water Block of wood (slightly narrower than the width of the box, approximately 8cm tall and 5cm deep) You may wish to source a video to demonstrate how tsunamis are formed
	Key/New Words: Tsunami.	Preparation: Tsunami Display Photos - per pair

Prior Learning: Children should know how earthquakes occur.

Learning Sequence

	What Is a Tsunami? Ask children to come up with some ideas of what a tsunami might be. Explain that tsunami is a Japanese word meaning "harbour wave" and that a tsunami is a giant wave. Were children's ideas close to the real meaning?	
	What Causes a Tsunami? Explain to children that a tsunami is caused by an earthquake under the ocean. The energy from the vibrations and plate movement cause a large amount of water to be displaced very quickly. A series of waves travel through the deep water. As the waves travel through shallower water near the land, they get bigger. You may wish to show a video of the causes of a tsunami here.	
	What does a Tsunami Look Like? Set up a model of a tsunami using the How to Make a Tsunami Craft Instructions for the children to see how the wave increases in size as it approaches land.	
	What Damage Does a Tsunami Cause? Children look at a picture of an area after a tsunami has hit. What can you see that looks out of place? What kinds of damage have occurred in the area? If you were a rescue team who have just arrived at the scene, what kinds of help might you need to give? Join pairs together to form small groups of 4-6 children and using the Tsunami Display Photos , share what each pair has noticed in their picture.	
	Tsunami Safety Rules: Share the safety rules slide. Reassure children that tsunamis are most likely to occur around the Pacific Ocean, as they are linked to earthquakes. There have only been two confirmed tsunamis to hit the UK – on in 6100 BC and one in 1755.	

Taskit

Investigateit:	Use the tsunami model equipment to investigate the effect of different sized earthquakes. Drop the wooden block from different heights above the water and observe the difference in height and speed of the resulting wave.
Talkit:	What would you gather up if you were told to leave your house? What would you least like to leave behind? If you lived in a tsunami risk area, which kinds of things would you pack into a tsunami survival kit?
Exploreit:	Find out more about the tsunami that struck the Indian Ocean on Boxing Day 2004 or Japan 2011. What damage occurred and what support did the rest of the world offer to the areas affected?
Actit:	Create a news bulletin reporting from an area hit by a tsunami. Interview eye witnesses and explain what has happened to your audience.