

Extreme Earth: Tornadoes

Aim: Describe and understand key aspects of physical geography in the context of tornadoes. To explain what causes tornadoes and the effects they have.	Success Criteria: I can tell you how tornadoes form. I can explain how scientists collect data about storms. I can explain how scientists compare tornadoes. I can tell you where tornadoes happen.	Resources: Lesson Pack Two empty 2 litre fizzy drinks bottles Metal washer (about 2.5cm in diameter with a hole about 1.25cm in diameter) Plastic electrical or duct tape Food colouring (optional) Glitter (optional)
	Key/New Words: Tornado.	Preparation: Practice making a tornado to get the swirling action right using How to Make a Tornado Craft Instructions What Scientists Use Activity Sheet - as required Tornado Intercept Vehicles Activity Sheet - as required Comparing Tornadoes Matching Cards (pre-cut) - one set per child

Prior Learning: No prior learning required.

Learning Sequence

	What Is a Tornado? Show children the photographs of a steam train and military jet. Both objects are named "Tornado". What do you think a tornado is? Why have these machines been given that name? Share the photograph and definition of a tornado.	
	How Do Tornadoes Form? Share the summary of the process with children, and then play through this short animated sequence . Using the How to Make a Tornado Craft Instructions , create a model tornado to show the class how a tornado is formed. First, hold the bottles still - watch what happens inside the bottle. What did you notice? Now rotate the bottles horizontally - If the bottles are rotated slightly, does the same thing happen? What did you see? (A vortex forming). What does the glitter represent? (Dust and debris collected by a storm). How could we make the vortex spin more quickly? (Rotate the bottles more quickly).	
	How Do Scientists Collect Data About Tornadoes? Watch the Storm Chasers video. Would you like to be a storm chaser?	
	What Do Scientists Use? Watch the Storm Chasers video again and use the What Scientists Use Activity Sheet to identify key pieces of equipment used to track storms. Analyse the design of a TIV using the Tornado Intercept Vehicles Activity Sheet.	
	How Do Scientists Compare Tornadoes? Ask children to work in pairs to sort out the different levels of the EF scale using Comparing Tornadoes Matching Cards . Encourage them to look at the language in each descriptive text to work out the greatest impact. Share the correct scale. Discuss with children at which point on the scale they think the damage would mean that the government might declare a "state of emergency"? What kinds of help would people living in the area need?	
	Where Do Tornadoes Happen? Share the two maps of tornado locations. Are you surprised that tornadoes happen in the UK? How does the location of tornadoes differ to the other disasters we have looked at during this topic? (Not around the Pacific Ring). Why do you think this is? (Created by weather currents not by tectonic plates).	

Taskit

Writeit: Write a shape poem in the shape of a tornado, using powerful verbs to describe the actions of a tornado.

Buildit: Build your own TIV (tornado intercept vehicle) - use a powerful hair-dryer to test the strength of it!

Reportit: Create a news bulletin about the aftermath of a tornado - interview eyewitnesses and use maps to show the tornado's path.