

Tornado

Location

First floor, Curiosity zone exhibition

In a nutshell

Visit our portable tornado maker to see the movement of air in a tornado.



What to do

See the movement of the air in a tornado; use your arm to see how objects affect the tornado.

Time Required

KS3 & KS4 2-3 minutes per student.

What's happening?

A tornado is a violently rotating column of air, spinning whilst in contact with both the surface of the Earth and the base of a cumulonimbus or cumulus cloud. A tornado can pick up debris and dust that can add to the damage they cause. Most tornadoes have wind speeds of less than 180 km/h (110 mph) and have a diameter of approximately 80m travelling for several kilometres before dissipating but the most extreme can reach speeds of 480km/h (300 mph) with diameters over 3km travelling more than 100km before dissipating. A tornado is not always visible but due to the low pressure caused by high wind speeds, water vapour in the air usually condenses into cloud droplets making the tornado visible. Tornadoes are most common in spring and least common in winter, but tornadoes can occur any time of year that favorable conditions occur.

Curriculum links

KS3	Science - Pressure in fluids <ul style="list-style-type: none">- atmospheric pressure, decreases with increase of height as weight of air above decreases with height English - Reading <ul style="list-style-type: none">- learning new vocabulary, relating it explicitly to known vocabulary and understanding it with the help of context and dictionaries Geography <ul style="list-style-type: none">- physical geography relating to: geological timescales and plate tectonics; rocks, weathering and soils; weather and climate, including the change in climate from the Ice Age to the present; and glaciation, hydrology and coasts- understand how human and physical processes interact to influence, and change landscapes, environments and the climate; and how human activity relies on effective functioning of natural systems
KS4	Geography <ul style="list-style-type: none">- Changing weather and climate – The causes, consequences of and responses to extreme weather conditions and natural weather hazards, recognising their changing distribution in time and space and drawing on an understanding of the global circulation of the atmosphere. The spatial and temporal characteristics, of climatic change and evidence for different causes, including human activity, from the beginning of the Quaternary period (2.6 million years ago) to the present day

Relates to:

Workshops & Theme Days	Shows	Trails	Other exhibits
<ul style="list-style-type: none">• System Earth day (KS3 & KS4)	<ul style="list-style-type: none">• Blue Marvel (Planetarium, All ages)		<ul style="list-style-type: none">• Changing world• Weather forecast• Shimmery sky• Lightening spark