

# Shimmery Sky

## Location

Ground floor, Our World exhibition

## In a nutshell

Control your own piece of atmosphere

Try our air cannon to move small areas of the atmosphere and our shimmering wall will show you exactly where it's going



## What to do

Aim the air cannon at different parts of the shimmering sky exhibit. Hit the back of the cannon to launch a burst of air and watch how the exhibit is affected.

## Time Required

KS3 & KS4 2 minutes per student.

## What's happening?

The air we breathe is made of by products of complex chemical reactions. Oxygen comes from plants; carbon dioxide comes from all living things, burning fossil fuels and even volcanoes; and nitrogen is released by bacteria living in the roots of plants like beans and peas.

You move air from the cannon to the mirrors. The air is always moving because the sun heats it up. Small things like pollen and dust are carried around the globe in the air. This pollen and dust can circle the Earth in days but if these tiny grains get high in the atmosphere they can stay there for years.

### Curriculum links

Curriculum links	
<b>KS3</b>	<p><b>Science - Photosynthesis</b></p> <ul style="list-style-type: none"><li>- the reactants in, and products of, photosynthesis, and a word summary for photosynthesis</li></ul> <p><b>Science - Earth and atmosphere</b></p> <ul style="list-style-type: none"><li>- the production of carbon dioxide by human activity and the impact on climate</li></ul> <p><b>Science - Forces</b></p> <ul style="list-style-type: none"><li>- forces as pushes or pulls, arising from the interaction between two object</li></ul> <p><b>Science - Forces and motion</b></p> <ul style="list-style-type: none"><li>- forces being needed to cause objects to stop or start moving, or to change their speed or direction of motion (qualitative only)</li><li>- change depending on direction of force and its size</li></ul> <p><b>English - Reading</b></p> <ul style="list-style-type: none"><li>- learning new vocabulary, relating it explicitly to known vocabulary and understanding it with the help of context and dictionaries</li></ul> <p><b>Geography</b></p> <ul style="list-style-type: none"><li>- 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</li><li>- 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</li></ul>
<b>KS4</b>	<p><b>Science - Importance of photosynthesis</b></p> <ul style="list-style-type: none"><li>- describe the process of photosynthesis and describe photosynthesis as an endothermic reaction</li></ul> <p><b>Science - Common atmospheric pollutants and their sources</b></p> <ul style="list-style-type: none"><li>- describe the major sources of carbon monoxide, sulfur dioxide, oxides of nitrogen and particulates in the atmosphere and explain the problems caused by increased amounts of these substances</li></ul>

## Relates to:

Workshops & Theme Days	Shows	Trails	Other exhibits
<ul style="list-style-type: none"><li>• Catching the sun (KS3 &amp; KS4)</li><li>• Engineering solutions (KS3 &amp; KS4)</li><li>• System Earth day (KS3 &amp; KS4)</li></ul>	<ul style="list-style-type: none"><li>• Blue Marvel (Planetarium, all ages)</li></ul>		<ul style="list-style-type: none"><li>• Changing world</li><li>• Convection</li><li>• Living timeline</li><li>• Water cycle</li><li>• Weather forecast</li></ul>

