

Air stream



Location

Ground floor, Move it exhibition

In a nutshell

Place a selection of balls in the air stream and watch them float.

What to do

Press the green button to turn on the air stream, place the ball in the air stream. Adjust the direction of the air stream by turning the nozzle, experiment using your hands to alter the air flow.

Time Required

KS1 & KS2 3 minutes per student.

What's happening?

The ball stays afloat because of the Coanda effect. This is the same effect that causes water to follow the surface of a teaspoon. As the air flows past the curved surface of the ball the air and the ball pull on each other. Because these forces act in all directions all the time, the ball stays stationary.

Curriculum links

Curriculum links	
KS1/2	<p>Science - Forces (Yr 5)</p> <ul style="list-style-type: none"> - explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object - identify the effects of air resistance, water resistance and friction, that act between moving surfaces <p>English - Spoken language</p> <ul style="list-style-type: none"> - articulate and justify answers, arguments and opinions - give well-structured descriptions, explanations and narratives for different purposes, including for expressing feelings - use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas <p>English - Reading – word reading</p> <ul style="list-style-type: none"> - (Yr1) apply phonic knowledge and skills as the route to decode words - (Yr2) continue to apply phonic knowledge and skills as the route to decode words until automatic decoding has become embedded and reading is fluent - (Yr 3-6) apply their growing knowledge of root words, prefixes and suffixes (etymology and morphology) as listed in English Appendix 1, both to read aloud and to understand the meaning of new words they meet - (Yr 3 & Yr4) read further exception words, noting the unusual correspondences between spelling and sound, and where these occur in the word <p>English - Reading – comprehension</p> <ul style="list-style-type: none"> - (Yr1) discussing word meanings, linking new meanings to those already known - (Yr2) discussing and clarifying the meanings of words, linking new meanings to known vocabulary

Relates to:

Workshops & Theme Days	Shows	Trails	Other exhibits
<ul style="list-style-type: none"> • Fantastic forces (KS2 upper) • Pushes and pulls (KS1) • High Flyers day (KS2) 	<ul style="list-style-type: none"> • Field Day Forces (KS2) • Launch it! (KS2) • Dream to fly (Planetarium, KS2 upper) 		<ul style="list-style-type: none"> • Happy landings • Launch it! • Will it fly • Hot air balloon

