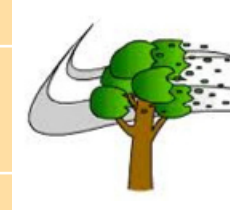




# MOVING AIR




<b>Equipment:</b>	<ol style="list-style-type: none"><li>1. Straws, small pieces of light material (e.g. kitchen foil, tissue, polystyrene, newspaper, cotton material, ping pong ball ....), ruler or non-standard measure</li><li>2. Bubble mixture (washing-up liquid and water), containers such as butter cartons, straws, paper, ruler or non-standard measure.</li></ol>
<b>Suggested Class Level:</b>	Younger classes
<b>Preparation:</b>	<p><b>For Activity 2:</b> Prepare bubble mixture as follows:</p> <p>In a 1 Litre plastic bottle make up a soap solution in the approximate ratio of 4 parts water to 1 part washing-up liquid. (Optional: half a teaspoon of glycerine – available in most chemists – makes the bubbles last longer)</p>
<b>Background information:</b>	<p>Air can move things – think of leaves or sand blowing on a windy day. It can speed things up or slow things down (think of cycling a bike with the wind behind you or against you).</p> <p>In olden days large ships had sails and relied on moving air (i.e. wind) to drive them. Engines drive large ships now, but people still use the wind for sailing smaller leisure craft, e.g. sailing yachts.</p>
<b>Trigger questions:</b>	<ol style="list-style-type: none"><li>1. Can you see air? (Not really, if it is clean) Can you hear air? (Yes if it is moving) Can you smell air? (Not if it is pure) Can you feel air? (Yes if it is moving) Do we need air? (Yes...) Can air move things? What sort of things can it move? How can you move air?</li><li>2. What is a bubble? (Air surrounded by e.g. water, soap Mixture...)</li></ol> <p>LET'S INVESTIGATE MOVING AIR!</p>
<b>Content:</b>	<p><b>SCIENCE:</b> Forces Materials – Properties and Characteristics</p> <p><b>MATHS:</b> Number: comparing and ordering Measures: Length Data: Sort and classify, represent data (e.g. pictograms)</p>





# MOVING AIR



<b>Skills:</b>	Predicting, experimenting, observing, measuring, recording, analysing																														
<b>Cross-curricular Links:</b>	<p><b>Geography:</b> Weather (winds)</p> <p><b>Music:</b> Moving air and wind instruments</p>																														
<b>Activity:</b>	<p><b>1. Can the children move various materials using air?</b></p> <p>Show the children the various materials and ask them:          “What are the different ways of using air to move these things?” <i>(They may suggest blowing directly or through a straw, fanning ...)</i></p> <p>Choose one way and use the same way each time.</p> <p>The children should predict which material is easiest to move, and which the hardest.</p> <p>They then experiment and fill in the table, either by sticking in visual pictures <i>(Infants)</i> or in writing <i>(First and Second classes)</i>.  <i>(A suggested way, for controlling the blowing, is to give each child a straw and ask them if they can move the material by blowing at it).</i></p> <table border="1" data-bbox="359 1137 1114 1556"> <thead> <tr> <th rowspan="2">Material</th> <th rowspan="2">How I tried to move material</th> <th colspan="2">Did it move?</th> </tr> <tr> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>Kitchen foil</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Tissue</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Polystyrene</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Newspaper</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Cotton material</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Ping pong ball</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>  <p>Pictograms are very suitable for this activity with Infant classes:          e.g. To represent how far each material moved with the same number of puffs.</p> <p>Which material was easiest to move? Why?</p> <p>Which were you able to move the furthest? How far were you able to make it move?</p> <p>How can you make it a fair test?</p> <p>The children can classify the things into ‘Easy to Move’ and ‘Hard to Move’.</p> <p>A follow-up question could be asked: “Does the shape make any difference?” e.g. “Is it easier to move a piece of kitchen foil when it is flat or when it is rolled up in a ball?”</p>	Material	How I tried to move material	Did it move?		Yes	No	Kitchen foil				Tissue				Polystyrene				Newspaper				Cotton material				Ping pong ball			
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# MOVING AIR



## 2. Can the children think of ways of moving bubbles?

The children can make bubbles by blowing through a straw into the soap mixture in a butter carton.

Ask them “How do you make small bubbles? Big bubbles?”

What happens when you blow gently? Blow hard?”

Can they measure the height of the bubbles? (*standard or non-standard units can be used*)

Can they think of ways of moving the bubbles in the direction they want by fanning them with paper?



If they make paper fans (*by pleating the paper and stapling at one end*) does this make it easier to control the bubbles?)

Ask the children “Do you notice anything else about the bubbles?”  
(*The colours*)

“Do they remind you of anything?” (*The rainbow colours*)



**MATHS:** First and Second Classes: Take a length of paper (*or graduated paper*) and mark ‘START’ and ‘FINISH’ on it, with distances in-between, e.g. 5 cm., 10 cm., etc. This would make it easier to decide which material went the furthest.

### Safety:

**DO NOT SUCK THE BUBBLE MIXTURE! – it might make you sick.**

### Follow-up activities:

1. Infants could play a game of air football in pairs, using straws and green card and whichever material they found the easiest to blow when rolled up into a ball.

2. Make boats out of a cork or paper, then blow or fan them on water; they could have a race.  
(*A large container of water – it can be shallow - would be needed*).

