



## BOX NOTICE

Name of the activity	Air
Activity duration	1 h
Material needed	Air box, tissue, plastic bottle, cup, bowl that can fit the whole cup inside, tape, water, A4 paper
Number of pupils involved (per box)	3

### Step 1: Storytelling

Use the storytelling resources and read the story to your students. Talk about what happened in the story, and if the king made a good decision. Discuss the importance of air for life on earth.

### Step 2: Introduction

Talk to your students about air, and what they know about it. How can they be sure that air is even real?

To prove that it exists, take a bottle and a small ball made of tissue. Place the bottle horizontally on the table and put the ball at its entrance. Ask the students what will happen if you blow on it. After they have made their hypothesis, do the experiments. You will observe that instead of going inside the bottle, the tissue has fallen outside of it. The bottle is full of air, and since it can't fit anymore, some air must leave the bottle, and it pushes the paper out.

## Step 3: Feeling the air

Now tell the students to screw the bottle cap on the bottle and have them squeeze it. They will notice that they can't crush the bottle completely. Now have them take the cap off and try again. This time it will be much easier. Discuss with them why it was like that.

## Step 4: Submarine (only for Sequence 1)

Do the submarine experiment as described in the "Creation of elements". Discuss what happened. Why is the paper dry? After gathering the students' ideas, you can explain that this happens because air was trapped inside of the cup. Even though it looks empty to use, the cup was full of air, so the water couldn't enter it. If we tilt the cup, we will see the bubbles of air leave the cup, making space for water to come in, and the paper would get wet.

## Step 5: How do planes fly? (only for Sequence 2)

Talk to the students about how planes fly. Most likely a lot of them will say that it is because of the engines. While that is partially true, there is another key thing that is important which is air pressure. Give each student a piece of paper, have them hold it in front of their mouth and blow horizontally on the top side of the paper. They will see that it lifts. This is because the air pressure of moving air is greater than the non-moving air, so the air from the bottom of the paper pushes it upwards. The same principle applies to the planes.



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