

Blowing and Lifting

Apparatus

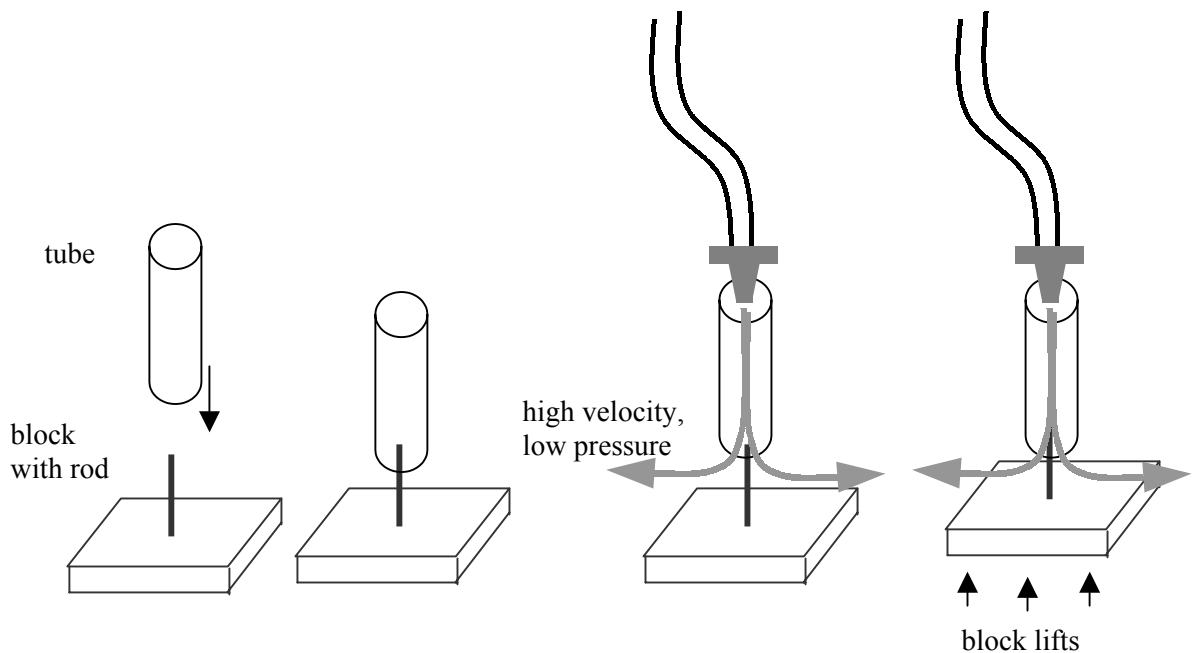
polystyrene block or light cardboard sheet with rod (nail) through the middle, air blower, tube

Action

The students lift the block by blowing the air down the tube over the block. The nail or rod allows them to locate the tube over the block. They should explain why blowing on the block lifts it, instead of pushing it down.

The Physics

The high velocity air flowing over the upper surface of the block is at lower pressure than the air below which is at atmospheric pressure, so the block lifts. This is an application of Bernoulli's principle.



Accompanying sheet

Blowing and Lifting

Lift the foam block by blowing down into the hollow tube above it.

How is this possible?

Why isn't the block blown away from the tube?