

## LO1 STEM in Action

**“MY BEST” - STEM LESSON**

We are not looking for detailed lesson plans – just great ideas, lessons that go well (with why) and unusual ideas and approaches. The idea is to inspire others.

## Lesson Plans

Lesson Title	Air mass
STEM Topic	<b>Science</b> – Technology – Engineering – Maths – STEM (ALL) (Circle as appropriate)
Aims of the Session (Links to curriculum and qualifications?)	Revision of the topic density and mass. Working in groups. Related to Chemistry and Maths.
Group and Age	13 - 16, whole class
Lesson Description  - Key ideas and/or novel approaches	Split the students into groups of three people (A, B, C, by random choice). Student A is only allowed to write, student B can speak and student C can only do what he is told (no speaking or writing). Give them an exercise sheet to lead them through the exercise. Tasks: <ol style="list-style-type: none"> <li>1) Try to guess total mass of the air in the classroom you are in.</li> <li>2) Measure and count the actual mass of the air in the classroom. The only tools you can use are Tables of physical constants and a 1-metre-long string. (If the classroom is too high, tell the students the height.)</li> <li>3) How much does each of the gases in the air in the classroom weigh?</li> </ol> In the end compare the results with the guess.
What do you like about this session?	The students have to figure out themselves how to solve the task. The whole exercise is quite silent as only one of the students in each group can speak and give orders, but everyone has something to do.
How does this Lesson cater for women or students from a minority ethnic background	The tasks are distributed by random choice, no differences are made.
Any other comments or suggestions	Students are always quite surprised that the air is so heavy.