**Lesson 1 – Introduction and Experiment**

Refer to guidance sheet and PowerPoint notes for more information on each activity.

Slide numbers refer to the PowerPoint.

Timings are approximate – don’t worry about spending longer on the initial activities but keep an eye on the clock. The experiment itself should take around 15 - 20 minutes.

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| **Outline and timings** | **Activities** |
| Introductions (10 mins) | Hand out name stickers (if available) and introduce yourselves.  Discuss what a university is and what you do there.  You may wish to extend this section if there are lots of questions!  Ask students to use stickers to complete survey sheets (this could also be done at the end of the lesson). |
| Pollution and particles  (10 mins) | Slide 3 - introduce experiment  What is pollution? What are particles? Where might these particles come from – examples on slide 6  Discuss the size of particles and how we will need to use special equipment to see some of them! |
| Particles and breathing  (15 mins) | Diaphragm and lungs model – what does this show?  Students can label diagram of human body with windpipe, lungs and heart.  Use torso model to show where these are – volunteers can work with smaller groups here  Discuss problems caused and role of mucus with larger particles |
| Experiment (15 - 20 mins) | Introduce the experiment and the particle traps  Students draw and label their trap grids then write about aims and method.  Wordsearch can be used as a time-filler.  Students gradually bring traps to volunteers and cover grid area with thin layer of Vaseline. |
| Setting the traps and finishing off (5 – 10 mins) | Students / staff hang traps in chosen locations  Thank students for their work and discuss what they will be doing in next week’s lesson. |