**Lesson 1 – Introduction and Experiment**

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

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. It’s unlikely that you will have time to help the students place the traps around school – this will probably have to be done after the lesson, with the assistance of school staff.

|  |  |
| --- | --- |
| **Outline and timings** | **Activities** |
| **12.30**  Introductions (5 mins) | Hand out name stickers (if available) and introduce yourselves.  Discuss what universities are and what you do there.  Ask students to use stickers to complete survey sheets (this could also be done at a later stage of the lesson). |
| **12.35**  Pollution and particles  (10 mins) | Introduce experiment:   * What is pollution? * What are particles? * Where might these particles come from – examples on slides * Discuss the size of particles and how we will need to use microscopes to see some of them |
| **12.45**  Particles and breathing  (15 mins) | Discuss the breathing process and potential problems caused by particles entering the lungs and / or bloodstream.  Use torso / lungs model to help – volunteers can work with smaller groups here |
| **1.00**  Experiment (15 mins) | Introduce the experiment and the particle traps  Students draw and label their trap grids then write about variables, aims and method.  Students gradually bring their traps to volunteers and cover the grid area with a thin layer of Vaseline. |
| **1.15**  Finishing off (5 mins) | Thank students for their work and discuss what they will be doing in next week’s lesson. |