**Lesson 2 – 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

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| **Outline and timings** | **Activities** |
| Introductions (5 mins) | Introduce any volunteers who weren’t there for the first session. They can tell the pupils about what they do at the university. |
| Recap on last lesson (5 mins) | Use slides 1 – 3 to remind the students what they did last lesson.  Discuss the various locations used.  Ask for prediction of the area with the least / most particles. |
| Microscopes (10 – 15 mins) | Hand out magnifying glasses (see slide 4) and discuss.  Introduce microscopes and discuss their history (slides 5 – 8)  Students practise use of the portable scopes (slides 10 – 13) |
| Results analysis (15 mins) | Students use the scopes to begin particle counting (refer to slide 14). |
| Conclusions (5 mins) | Students record highest and lowest particles for their / group’s trap. Higher ability / older students can calculate means.  Discuss class results. |
| Finishing off (15 mins) | Students clean microscopes and return to box.  Team helps to collect in microscopes and clipboards.  Electron microscope quiz / animation (see link on slide 8) or the Scale of Universe animation to finish off. |