

Space Competition winner 1:

The box is full of ideas needing to be let out. The space is ideal to explore the interaction of molecules within a fixed environment.

The learning outcome is that students will gain an understanding of how molecules interact with an organelle (definition: any structure, such as a nucleus or a chloroplast, that has a particular purpose inside a living cell).

Objective one (timed): *Diffusion* - students will move around the room in a random manner, starting in one corner until they occupy the whole space. Discover that diffusion takes a long time.



Objective two (timed): *Molecular crowding* - two students will randomly move around the room until they meet, with the other students acting as a crowd. Discover that molecular crowding takes less time than diffusion; and that molecular crowding cells are crowded.



Objective three (timed): *membrane interaction* - two students will find each other but they must be touching the wall at all times. Discover that this takes the least time as the search space is reduced by use of the walls (membranes).



Feedback from Panel of Judges:

"exemplifies active learning and theory in action"

"uses the space well, referencing it's attributes by using it as a model for a cell"

"engaging"

Space Competition winner 2:

- The box contains 4 measuring tapes and four sets of whiteboard markers.
- The learning outcome is how to plan an extended piece of writing (e.g. dissertation) in a morning; aimed at Level 5 students (Semester Two).
- In 4 groups:
 - think of a research question
 - develop a hypothesis (can use mobile devices for research)
 - test the hypothesis
 - analyse their findings
 - report on it
- Interactions with tutor may involve students being prompted to think of a research question by measuring something (head circumference, arm length, distance you can throw a pen, etc.)
- Interactions between students will involve negotiating use of space, whiteboards, etc. with other groups; and collaborating with own group members.
- Whiteboards can be used.
- Each group will report and present their work to other students and the tutor in a manner of their own choosing.
- By the end of the session, students haven't done any extended writing, haven't sat in a chair, haven't learnt any new 'facts' but they have completed a mini-dissertation, ensuring they have all the key stages needed to plan their Level 6 dissertation.

Feedback from Panel of Judges:

"presented as a scenario that can be shared with other staff"

"students developing lots of 'hidden' skills, such as communication"

"learner-centred, active and engaging"