

LIFELONG HEALTH WITH THE UNIVERSITY OF SURREY

TALKING POINTS

1. What was the average life expectancy for humans in the UK in 2000 and what has that expectancy increased to in 2020?
2. What are the benefits of interdisciplinary research, do you think?
3. List some of the ways in which the University of Surrey has been refocusing skills to address the COVID-19 pandemic.
4. What are macrophages? (See *Why is Dany's research focused on the TB bacillus metabolic pathways?*)
5. Name some examples of cross species transmission of viruses. (See *What can we learn from Dan's research about the spread of Covid-19?*)
6. What can a-books with 3G paper do? (See *What is Next Generation Paper?*)
7. What does an electrocardiogram do? (See *Introduction to Professor Philip Aston's Article*)

ACTIVITIES YOU CAN DO AT HOME OR IN THE CLASSROOM

Professor Deborah Dunn-Walters highlights the importance of interdisciplinary research. In class, designate different roles or 'expertise' to groups of students and set them problems and challenges to explore. Each group can send an envoy to source information from another group. Students will have to discuss and collaborate to complete the task. The challenges you set could be based on anything – silly or serious, used as a starter, main or plenary – it's the collaboration that counts.

Here are some ideas to get you started:

1.

You're stranded on a desert island and you know the rescue team cannot reach you for at least one month. How will you survive?

Group A: has a list of equipment survivors have on them (such as a pen knife and matches)

Group B: has a list of which vegetation is edible

Group C: has knowledge of which insects are poisonous

Group D: has a list of useful materials found on the island

Group E: has a list of problems that will arise over the month (e.g. two weeks in, the pen knife is lost!)

Be sure to instruct students that they should only give another group information in exchange for more information. Collaboration is about everyone playing their part and sharing knowledge and skills!

2.

You are managing the evacuation of a town threatened by an imminent volcanic eruption. How will you proceed?

Group A: Earthquake experts

Group B: Transport managers

Group C: Medics

Group D: Police

Group E: Business owners

3.

You are part of an advisory team dealing with a pandemic. Use Deborah's examples (see *Five researchers working on lifelong health in very different ways*) to explore what each group of experts would offer to the response effort.

Group A: Biomedical scientists

Group B: Psychologists

Group C: Business analysts

Group D: Computer scientists

Group E: Mechanical engineers

Optional: Add a Group F and assign members the task of observing the other groups as they work through the challenge. They should make notes on how well the students collaborated, how they spoke and listened, how they coped with the 'stress' of the situation, and which groups excelled in gathering all the information they needed and why. Group F then feeds back to the whole class at the end of the task and gives advice for next time a similar activity is done.

Working individually or from home, students can approach a task or question from the perspective of one or more of the different groups. Even while working on their own, they'll appreciate that every question can be looked at from different perspectives and a range of people have their role to play. They can also ask themselves which group they would rather be in.

OUTREACH ACTIVITIES

The University of Surrey prides itself on the outreach activities it is engaged with, which cover year 5 to year 13. The aim is to raise the aspirations of students and provide information, advice and guidance related to higher education.

Secondary school activities

- Year 10
<https://www.surrey.ac.uk/schools-colleges/secondary/year-10>
- Year 11
<https://www.surrey.ac.uk/schools-colleges/secondary/year-11>

Post-16 student activities

- Subject-specific taster days
 - Residential summer schools
 - Campus visits
 - Online presentations
- <https://www.surrey.ac.uk/community/community/schools-and-colleges>