

Cell Survival Lesson Outline

This is a guide to how the cell survival resources can be used in a lesson and can be adapted as the teacher sees fit to do so. This lesson is aimed at 8-12 year olds, and fits into an hour long session.

Learning Outcomes

- Cells are the smallest unit of life
- There are many different types of cells, and some examples of cell types
- Cells experience many dangers, and some examples of dangers
- How cells notice and defend themselves against dangers

Links to the Curriculum

- Health and Wellbeing: *I am developing my understanding of the human body*
- Languages: *I can find specific information in a straight-forward text (book and instructions) to learn new things, I discover new words and phrases (relating to cells)*
- Mathematics: *I am developing a sense of size and amount (by using the dice), I am exploring number processes (addition and subtraction) and understand they represent quantities (steps to finish line), I am learning about measurements (cell sizes) and am exploring patterns (of cell defences against dangers)*
- Science: *I am learning about biodiversity (different types of microbes), body systems, cells and how they work.*
- Technology: *I am learning about new technologies (used to understand how cells work).*

Part 0: Preparation

Cell Survival is a card-based board game, good for 3-6 players. An appropriate number of game packs should be printed out and prepared in advance, along with an appropriate number of activity sheets.

Part 1: Introduction to cells and cell signalling

The topic can be introduced using the Cell Survival story, detailing the basics of what a cell is, how there are different types which live in different places, what cell dangers are, and how cells defend against them. This can be supplemented with videos produced to support Cell Survival which are available on the Cell Biology Games youtube channel ([Cell Biology Games - YouTube](#)).

Part 2: Play cell survival board game

Pupils told that they will be taking the role of the cell introduced in part 1 and will use their defences to defend against dangers. Teacher introduces the board game rules. Pupils break up into groups of 3-6 and play Cell Survival. This can continue for one or multiple rounds.

Part 3: Additional activities

After pupils have finished playing Cell Survival, activity sheets are distributed. These can then be worked on until the end of the lesson. If some finish early, they can receive more sheets which are focused on drawing and asked to perform in a slightly different way (e.g. they drew themselves as a mad scientist, now they can draw what they think a scientist looks like).

Part 4: Further discussion

The final few pages of the story detail some aspects of research, and research techniques, being used at the MRC-PPU, University of Dundee, to discover more about cells. If desired, these can be discussed at the end of the lesson, and homework based on aspects of this set.

Please also inform the pupils where they can find the 'at-home' version of Cell Survival, so they can continue to enjoy it at home!

We are really keen to hear how you got on with Cell Survival, and any improvements we can make. Please tweet @DrTomTORC, @mrcppu, @CellBiologyGames or email Cellbiologygames@gmail.com to let us know!