



Your teacher will inform you of what task to complete from the following lists via SHOWBIE/TEAMS depending on what topic/stage your class is at. Any materials required to complete these tasks will be posted on SHOWBIE/TEAMS. If you have issues accessing your classes on SHOWBIE/TEAMS please email your teacher through GLOW.

## Under the Microscope

- Complete homework 1&2
- Make a revision poster/mind map of topic. Make sure you can identify the different structures in plant & animal cells, and the parts of a microscope. Also note the 'Golden Rules' for drawing cells.
- Research 3 types of specialised cell and make a powerpoint presentation or write up your findings. Try to include labelled picture/diagrams.
- Revise the 'What you need to know booklet/pages'
- Complete the following lessons on BBC bitesize:
  - BBC Bitesize **Plant cells** <https://www.bbc.co.uk/bitesize/articles/z33mdp3>
  - BBC Bitesize **Animal cells** <https://www.bbc.co.uk/bitesize/articles/z3n93j6>
- If you are able to access YouTube, watch the video from Fuse School on 'How to Use a Microscope' <https://www.youtube.com/watch?v=xzjowD1KN2o>

## Growing Plants

- Complete homework 1&2
- Make a revision poster/mind map of topic. Make sure you can label the parts of the seed & flower. You should also be able to state the functions of these. Make sure you know what WOW stands for. Note the differences between wind & insect seed pollination, between animal internal, animal external & wind seed dispersal. Try to summarise these in a table. Take notes on what asexual plant reproduction is and make sure you know what a runner, tuber & bulb is. Take notes on artificial plant propagation & examples of techniques.
- Research uses of plants and make a powerpoint presentation.
- Revise the 'What you need to know booklet/pages'
- Complete the following lessons on BBC bitesize:
  - BBC Bitesize **Plant Reproduction** <https://www.bbc.co.uk/bitesize/articles/ztpwcmn>

## Habitats & Adaptations A

- Complete homework 1,2 &3
- Read PowerPoints and make notes in jotter. Make sure you have the definitions of biodiversity, ecosystem & habitats. You also need a list of reasons why biodiversity is important. Note the definitions for endangered & extinct species as well as examples. Note the definition of an adaptation, then find examples of behavioural and structural adaptations. Make sure you are familiar with the shape of the predator vs prey graph and understand why this relationship is so important. You also need to know the difference between a food chain & food web, what the arrows represent and be able to predict how populations change if food webs are altered.
- Research conservation projects and make a powerpoint presentation on a specific species & what is being done to protect it.
- Make a revision poster/mind map of topic
- Revise the 'What you need to know booklet/pages'
- Complete the following lessons on BBC bitesize
  - BBC Bitesize <https://www.bbc.co.uk/bitesize/topics/zp6ykqt/resources/1>

## Habitats & Adaptations A

- Complete homework 1,2 &3
- Read PowerPoints and make notes in jotter. Make sure you know what demands increase as the human population increases & the areas of the environment affected by pollution. You should also know where the pollution comes from. Make sure you have definitions of Desertification & Deforestation. Make sure you know what grazing is and how different levels affect biodiversity. Make sure you have some examples of competition between plants & animals
- Research natural hazards & disasters and make a powerpoint presentation on how they effect biodiversity.
- Make a revision poster/mind map of topic
- Revise the 'What you need to know booklet/pages'
- Complete the following lessons on BBC bitesize
  - BBC Bitesize clips on **sustainability** (ignore digestion & gas exchange)  
<https://www.bbc.co.uk/bitesize/topics/zyngjxs/resources/1>

## Habitats & Adaptations C

- Complete homework 1,2 &3
- Read PowerPoints and make notes in jotter. Make sure you know examples of nutrient cycles (carbon & nitrogen) and can say why they are important. You should know that fertilisers contain NPK, what the letters stand for, how they are used by plants & be able to calculate mineral ratios. You also need to be aware of the damage agricultural runoff to the environment.
- Research activity: how can agriculture be made more sustainable?
- Make a revision poster/mind map of topic
- Revise the 'What you need to know booklet/pages'
- If you can access youtube, watch the Khan Academy clip on Eutrophication & Dead Zones <https://www.youtube.com/watch?v=AxaWXWd2pw4>

## Staying Alive A

- Complete homework 1 & 2
- Read PowerPoints and make notes in jotter. Make sure you revise animal cell structure & function. Take notes on the stages of mitosis and why it is important. You should also know the difference between tissue & embryonic stem cells and their current uses. Make sure you can describe the stages of genetic engineering.
- Research activity: what do scientists think stem cells could be used to treat in the future? Why do some believe they should not be used at all?
- Make a revision poster/mind map of topic
- Revise the 'What you need to know booklet/pages'
- BBC Bitesize resources on **Cell division and Therapeutic Uses**
  - <https://www.bbc.co.uk/bitesize/topics/zd97sbk>

## Staying Alive B

- Complete homework 3
- Read PowerPoints and make notes in jotter. Make sure you know the word equations for fermentation in yeast & bacterial cells. You should also know the food & drinks they are used to produce. Make sure you know what enzymes are & why they are important in living cells. Note the word equations for the activity of catalase, amylase & phosphorylase. Note examples of how enzymes are used in industry (eg: fruit juices, detergents).
- Research activity: what is a biofuel? How is it made & what is it used for?
- Make a revision poster/mind map of topic
- Revise the 'What you need to know booklet/pages'
- BBC Bitesize resources on **Uses of Microbes** <https://www.bbc.co.uk/bitesize/topics/z27s34j>
- BBC Bitesize resources on **Enzymes** <https://www.bbc.co.uk/bitesize/topics/z7qnvcw>

## Staying Alive C

- Read PowerPoint and make notes in jotter. Make sure you know the definition of homeostasis, where the hypothalamus is located & how it helps to control body temperature. You should be able to list conscious & subconscious responses to overheating & overcooling. You should be able to describe how the pancreas controls blood sugar, including the role of insulin & glucagon. You should also be able to give examples of behaviour which aid survival, including how woodlice respond to light & moisture.
- Research activity: what is diabetes? What are the differences between causes & treatments for both types?
- Make a revision poster/mind map of topic
- Revise the 'What you need to know booklet/pages'
- BBC Bitesize resources on Uses of maintaining stable body conditions <https://www.bbc.co.uk/bitesize/topics/zfs4d2p>