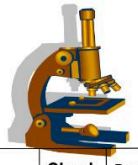
Year 9 BIology Summer exam 2025 Revision Checklist.
Do remember to bring a ruler, pen and pencil, rubber and calculator to the exam.



TOPIC 1: Cells & Reproduction in Plants

"After this lesson you will be able to ……"

Learning Outcome	Check	Revised
1. Label the parts of a monocular microscope		
2. State the function of each of the following parts; **stage**, **light source**, **objective lens**, **eyepiece lens**, **coarse focus**, and **fine focus**		
3. State two differences between a **monocular** and a **binocular** microscope		
4. Use a binocular microscope to look at fingerprints		
5. State what is meant by **magnification** and explain how it is calculated		
6. List the 7 characteristics of life.		
7. Recall the level of organisation in an organism.		
8. State that all organisms are made up of cells		
9. State that some organisms are made from a single cell		
10. Recall that an amoeba is a single-celled organism		
11. Use a monocular microscope to view a sample of single-celled organisms		
12. Describe how to prepare a slide using the terms coverslip, slide and specimen		
13. Describe how to view a prepared slide up to X400 magnification		
14. Draw and label a diagram of a plant cell		
15. Prepare a sample of plant cells for viewing under a microscope		
16. Draw and label a diagram of an animal cell		
17. Prepare a sample of animal cells for viewing under a microscope		
18. State the function of the cell membrane, nucleus, cytoplasm, cell wall, vacuole, and chloroplasts		
19. List the similarities and differences between plant and animal cells		
20. State that cells can be specialised for a particular job (examples root hair cell, ciliated epithelial cell, sperm cell, egg cell)		

28. Recall the parts and functions of the male and female reproductive systems		
29. Label the structure of a flower		
30. Define the term **pollination**		
31. Describe the differences between a wind pollinated and an insect pollinated plant		
32. State the difference between **self and cross pollination**		
33. Describe the process of fertilisation in plants		
34. Describe how seeds can be distributed		
35. Label a diagram of a seed		
36. Explain what is meant by the word **germination**		
37. Investigate the effect of varying conditions on the growth of seeds		

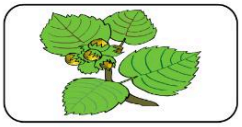
TOPIC 2: GAS EXCHANGE

"After this lesson you will be able to…"

Learning outcome/objective	Check	Revise
1. Label the main structures on the human gas exchange system.		
2. Know the main differences between gas exchange and respiration.		
3. Label the alveolus.		
4. State the features of the alveolus which make it excellent for exchanging gases.		
5. State the process by which gases are exchanged at the alveolus.		
6. Know the structures and changes that are involved when we breathe in and out.		
7. Know how the Bell jar model represents the lungs.		
8. Use the inhale/exhale apparatus to determine that exhaled air contains more carbon dioxide than inhaled air.		
9. State the pathway taken by air when breathing in and out.		
10. Know that peak flow in the maximum speed at which a person can exhale.		
11. Be able to carry out an experiment to determine if peak flow is affected by height.		
12. Know that lung capacity is a measure of the volume of air your lungs can hold.		
13. Be able to carry out an experiment to determine if lung capacity is affected by height.		
14. Know that there are a number of factors which affect breathing rate.		
15. Be able to explain why our rate and depth of breathing increases when we exercise.		

Note :- Respiration equation ONLY and no smoking

Topic 3 Photosynthesis and Food chains



"After this lesson you will be able to…"

Learning outcome/objective	Check	Revise
1. Label six structures found in a typical plant cell.		
2. State the function of the six structures found in a typical plant cell.		
3. Describe how to prepare a slide of onion cells.		
4. Label a diagram showing how to prepare a slide of onion cells.		
5. Label a diagram of a monocular microscope.		
6. Describe how to use a monocular microscope to view a prepared slide.		
7. Make a leaf peel and observe it under the microscope.		
8. Make a drawing of cells viewed with the monocular microscope.		
9. Explain the importance of photosynthesis.		
10. State the word equation for photosynthesis.		
11. Recall the part of the leaf cell in which photosynthesis occurs.		
12. Explain what chlorophyll is, where it is found and what its purpose is in the cell.		
13. Describe how the two raw materials for photosynthesis enter the leaf.		
14. Describe what happens to the two products of photosynthesis.		
15. Recall the steps in testing a leaf for starch and know why each step is carried out.		