

Year 8 Biology final topics/checklist for half term

This is by no means an 'exhaustive' list, but I would definitely encourage you to use your textbooks/notes/departmental website to revisit some of these areas, which often come up in exams. Please take this home!!

REMEMBER TO READ THROUGH THE POWERPOINT THAT IS ATTACHED TO THIS DOCUMENT!

1. **Position in the body of key organs** (you might have to label a diagram or state the job of these organs).
2. Give **examples of diffusion** (of gases) in plants and animals. Example: the diffusion of gases in the lungs/placenta etc.
3. How some **unicellular organisms** such as Amoebae/Euglena are adapted to their function (job)
4. How to carry out **food tests** to see if they contain sugars (using the **Benedict's test**, or Iodine test-for starch). The key thing here to look out for is colour changes and how to set the experiments up.
5. With regard to the lungs: do you know what is meant by the terms **vital capacity and lung volume**? How does athletic training on lung volume and heart rate. If not- look these up!
6. Can you describe some of the breathing difficulties associated with the lungs such as asthma and how it is treated? How do the inhalers work?
7. **How would you set up an experiment** to show that light is needed for photosynthesis? Could you identify the independent and dependent variables? Could you design a results table?
8. How would you set up an experiment to investigate the conditions needed for a seed to germinate? Could you identify the independent and dependent variables? Could you design a results table?
9. **Revise the parts of animal and plant cells**. Can you remember what each part does?
10. Do you remember **how to draw a food chain** and identify: producers/different types of consumer/omnivore/carnivore/predator/prey etc.
11. **Revise the different types of teeth** and how we need to keep our teeth healthy (**dental hygiene**).
12. We have spent some time looking at plants, but make sure you look up the importance of the following minerals: **nitrates/phosphates/magnesium/potassium**
13. Can you describe some of the **ways seeds are dispersed** (spread) and why this is important?
14. Look back through your notes on the similarities and differences between humans and the great apes e.g. chimps and gorillas.
15. Do you know the names of the 5 kingdoms and their key features e.g. multicellular/unicellular/cell wall etc.?
16. **Graph construction**. Make sure you know where to plot the independent variable (the thing you are changing/in control of e.g. temperature) and where to plot the dependent variable (the thing you are measuring e.g. number of bubbles given off). **Do you remember how to draw your axes/work out the scale?**

A good examination tests three things

- What you know
- How you know
- What you can do with what you know

- *Do you know how you know ?*

A variety of different questions

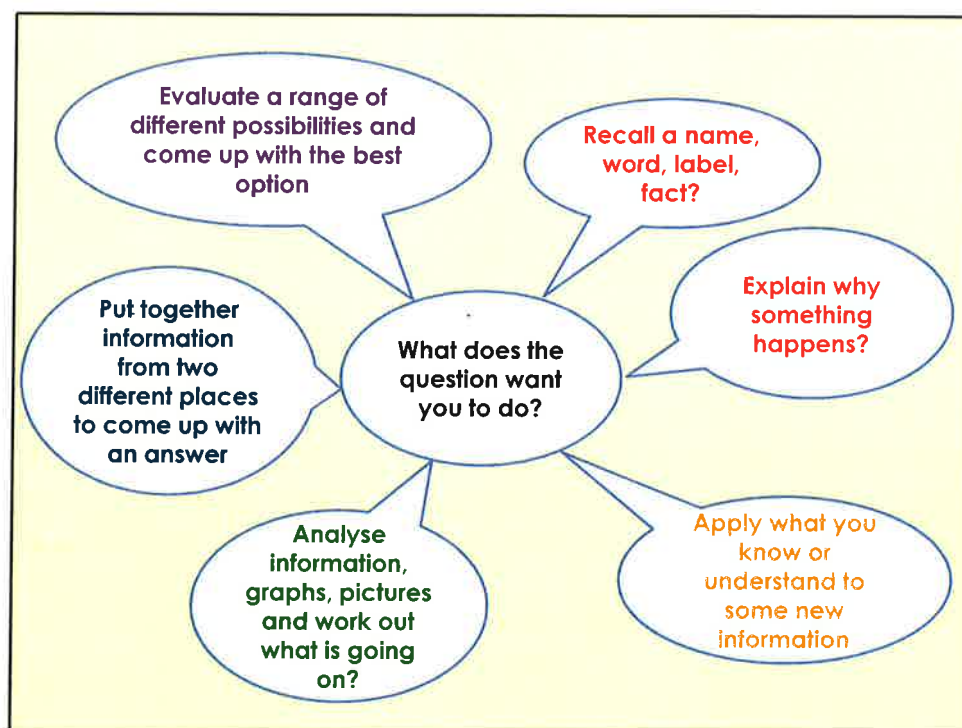
- Your challenge is not to answer the question.

- Your challenge is to decide:
 - how the question works,
 - what is the question is asking you to do
 - What skills do you need to use when tackling this question?

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There are six different types of questions



Words examiners use

- State
- Calculate
- Suggest
- Describe
- Explain
- Give it to me straight
- We have given you some numbers , get your calculator out and do the maths!
- You're going to have to think about this and come up with a sensible idea
- What can you see – from what you have read, in the picture, in the patterns within the numbers,
- Tell me your reasoning

Thinking like an examination marker

If you want somebody to do something for you...

Easy traps to fall into

- **It** gets fertilised
- The egg is fertilised by the sperm
- It **changes**...
- The temperature goes up
- The pH goes down
- **Nutrients**
- Would that be carbohydrates or proteins? Vitamins or fats?
- The leaves need **gas**
- Oxygen? Carbon Dioxide? Helium?

Common Entrance and beyond

Assessing your skills at

- Building a bank of sound knowledge
- Capability with ideas
- Practical skills
- Designing experimental investigations

When marking we look beyond the right answer

- Understanding of concepts
- Ability to link ideas
- How you use concepts and principles to consider new situations