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## Command words in GCSE Biology

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**State, describe, explain, compare, evaluate** and **suggest** are the most important command words. Learn to recognise the command words when they come up in exam questions, follow our advice on how to answer them and you'll pick up precious marks in your Biology GCSE.

It's very important to recognise command words in the exam and then to ***tailor your answers*** to the instructions given to you by these command words.



### State

Take, for example, the picture of the girl. You could state that this is a girl.

In the context of an exam question you may need to state the part of the body that produces bile. (Answer: the liver).

## Describe

Then to describe the girl you could say that she has brown hair and brown eyes. Simply say what you see.

Sometimes you may need to describe a process or pathway. For example when you inhale, oxygen travels down the trachea, then into the bronchi and the bronchioles and finally into the alveoli before diffusing into the blood. In this situation, a describe question is testing your knowledge and testing your factual recall.

It can sometimes be difficult to distinguish between describing a biological structure and describing the function of that structure. The structure is something that you can label on a diagram, like a nucleus in a diagram of a cell. The function is the job or role of that structure (the nucleus contains the DNA that codes for the proteins that control the cell).

Finally, when describing graphs, you need to take a slightly different approach. This is covered in our blog: [\*\*Describing, explaining and comparing graphs\*\*](#).

## Explain

When asked to explain, you need to give a scientific reason *why* or *how*. Here, you need to use the word '*because*'. The girl has brown hair and brown eyes *because* she has inherited the alleles/genes for these characteristics from her parents. If the exam question is worth several marks you may need to support your answer with a genetic diagram or a Punnett square to really show off your amazing understanding of inheritance!

*Application* questions ask you to explain why or how something happens but in an *unfamiliar context*. You may have learnt how farmers have selectively bred cows to yield large volumes of milk. But an exam question may ask you to explain how a farmer can selectively breed *tomatoes* to produce large tasty tomatoes. Here you simply show off your understanding of the process of selective breeding but change '*cow*' to '*plant*' and '*milk yield*' to '*size and taste*'. We discuss application questions in detail in our blog: [\*\*The application of knowledge to unfamiliar contexts\*\*](#).

## Compare

When asked to compare, you need to comment on *both* the *similarities* and the *differences*. It's important to take each similarity and difference in turn as the mark schemes often offer only 1 mark per comparison, rather than a mark for each individual set of similarities and differences. It's important to use *comparative terms* such as *longer*, *fewer*, *faster* or to say that one has something *while* the other lacks something.

For example, if asked to compare mitosis and meiosis, you could write the following: "Mitosis and meiosis are similar because they are both forms of cell division that produce daughter cells. However, there are clear differences. Mitosis produces *two* identical daughter cells, while meiosis produces *four* unique daughter cells. Mitosis involves *one* division, while meiosis involves *two*".

If asked to compare aerobic and anaerobic respiration you could say: "They both transfer energy from glucose. But aerobic respiration releases more ATP molecules than anaerobic respiration and aerobic respiration releases carbon dioxide and water while anaerobic releases lactic acid as a product".

Common compare questions in Biology are: *sexual/asexual reproduction; the role of the menstrual cycle hormones; plant/animal cells; eukaryotic/prokaryotic cells, light/electron microscopes, osmosis/diffusion/active transport; biotic/abiotic factors; communicable / non-communicable diseases; arteries/veins/capillaries; translocation/transpiration; xylem/phloem*. These are all worth practising.

## Evaluate

In the exam, if you are asked to evaluate, you have to put forward advantages and disadvantages. A good way to revise these questions is to create a table of 'pros' and 'cons' and use this to evaluate the common topics that come up in the exams.

Common evaluate questions in Biology are: *Different forms of contraceptives; IVF; genetic engineering; intensive farming; light or electron microscopes; stem cells; treatments for cardiovascular disease*. Once again, get practising!

## Suggest

Finally, in suggest questions, which are often worth only 1 mark, you would not necessarily have been taught the answer and you need to make an *educated guess*. Here, the examiner is trying to work out how good you are at applying what you have learnt to novel or unfamiliar contexts.