

# Focus on success: GCSE science

## Extended response questions

Build on your students' assessment performance using our self-guided, modular training pack



Handouts  
booklet





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# Command words

The following command words are all commonly used in extended response questions.

## Calculate

Students should use numbers given in the question to work out the answer.

## Compare

This requires the student to describe the similarities and/or differences between things, not just write about one.

## Describe

Students may be asked to recall some facts, events or process in an accurate way.

## Design

Set out how something will be done.

## Determine

Use given data or information to obtain an answer.

## Evaluate

Students should use the information supplied, as well as their knowledge and understanding, to consider evidence for and against when making a judgement.

## Explain

Students should make something clear, or state the reasons for something happening.

## Plan

Write a method.

## Suggest

This term is used in questions where students need to apply their knowledge and understanding to a new situation.

# Annotated mark scheme

This example mark scheme is taken from the summer 2018 GCSE Biology 2H paper. It is for a 6-mark 'Design/Plan/Describe a method' question (see generic level descriptors, below).

The specification reference is shown.

Each command word has a generic set of levels descriptors.

Question	Answers	Mark	AO / Spec. Ref.
04.3	<b>Level 3:</b> The method would lead to the production of a valid outcome. All key steps are identified and logically sequenced.	5–6	AO3
	<b>Level 2:</b> The method would not necessarily lead to a valid outcome. Most steps are identified, but the method is not fully logically sequenced.	3–4	AO2
	<b>Level 1:</b> The method would not lead to a valid outcome. Some relevant steps are identified, but links are not made clear.	1–2	AO1
	<b>No relevant content</b>	0	
	<b>Indicative content</b> <ul style="list-style-type: none"> <li>• placing of quadrat</li> <li>• large number of quadrats used</li> <li>• how randomness achieved – eg table of random numbers or random number button on calculator or along transect</li> <li>• quadrats placed at coordinates or regular intervals along transect</li> <li>• in each of two areas of different light intensities or transect running through areas of different light intensity</li> <li>• for each quadrat count number of dandelions</li> <li>• for each quadrat measure light intensity</li> <li>• compare data from different light intensity</li> </ul> <p>to access level 3 the key ideas of using a large number of quadrats randomly, or along a transect, and counting the number of dandelions in areas of differing light intensity need to be given to produce a valid outcome</p>		4.7.2.1

The indicative content shows the scientific points a student could use in their response. The list is not exhaustive, and students could use other ideas. Students do not need to include all of the indicative points to gain full marks.

There may be extra guidance to clarify what students need to do to get into the higher level.

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# Levels descriptors

The mark scheme uses generic level descriptors linked to the specific command word.

**Calculate/Determine:** use numbers/data to work out the answer.  
A multi-step calculation worth 4, 5 or 6 marks with a points scheme.

**Compare:** describe the similarities and/or differences between things, not just write about one.  
4 or 6 marks with two level descriptors.

<b>Level 2:</b> Scientifically relevant features are identified; the way(s) in which they are similar/different is made clear and (where appropriate) the magnitude of the similarity/difference is noted.	3–4 or 4–6
<b>Level 1:</b> Relevant features are identified and differences noted.	1–2 or 1–3
<b>No relevant content</b>	0

**Describe:** recall some facts, events or process in an accurate way.  
4 or 6 marks with two level descriptors.

<b>Level 2:</b> Scientifically relevant facts, events or processes are identified and given in detail to form an accurate account.	3–4 or 4–6
<b>Level 1:</b> Facts, events or processes are identified and simply stated but their relevance is not clear.	1–2 or 1–3
<b>No relevant content</b>	0

**Design/Plan/Describe a method:** set out in a logical order how something can be done.  
6 (or 4) marks with three (or two) level descriptors.

<b>Level 3:</b> The method would lead to the production of a valid outcome. The key steps are identified and logically sequenced.	5–6
<b>Level 2:</b> The method would not necessarily lead to a valid outcome. Most steps are identified, but the method is not fully logically sequenced.	3–4
<b>Level 1:</b> The method plan would not lead to a valid outcome. Some relevant steps are identified, but links are not made clear.	1–2
<b>No relevant content</b>	0

**Evaluate:** use the information supplied, as well as knowledge and understanding, to consider evidence for and against. Make a judgement about the value of something with a respect to a particular purpose.  
The response is based on analysis so identification of relevant features is necessary and the use of relevant criteria. Response might need to look critically from a number of angles.  
6 (or 4) marks with three (or two) level descriptors.

<b>Level 3:</b> A judgement, strongly linked and logically supported by a sufficient range of correct reasons, is given.	5–6
<b>Level 2:</b> Some logically linked reasons are given. There may also be a simple judgement	3–4
<b>Level 1:</b> Relevant points are made. They are not logically linked.	1–2
<b>No relevant content</b>	0

**Explain:** clarify by describing in more detail or revealing additional, relevant facts. Give causes or motivating factors of why something has happened.  
6 (or 4) marks with three (or two) level descriptors.

<b>Level 3:</b> Relevant points (reasons/causes) are identified, given in detail and logically linked to form a clear account.	5–6
<b>Level 2:</b> Relevant points (reasons/causes) are identified, and there are attempts at logically linking. The resulting account is not fully clear.	3–4
<b>Level 1:</b> Points are identified and stated simply, but their relevance is not clear and there is no attempt at logical linking.	1–2
<b>No relevant content</b>	0

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# Process of applying a levels of response mark scheme

**Step 1:** Read the level descriptors for the command word.



**Step 2:** Assigning a level

Read through the whole of the student's response. Using a best fit approach, assign a level for the answer.



**Step 3:** Refer to the indicative content and read the answer through again.

Decide which of the two marks in that level you would assign to the answer.  
AQA has a positive marking policy. Full marks does not always mean students have to write a 'perfect' answer. Students are required to fulfil the requirements of the mark scheme to be awarded full marks.



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# Personal action plan

Following your training session and results of your post-session health check, use this action plan to help continue your development in specific areas.

Knowledge/competency area	Development notes
Clear understanding of command words and levels of response descriptors	
The features of levels of response mark schemes and how to apply them	
Strategies to support improvements to student skills with command words/levels of response in extended response questions	

<b>Personal development aim/target:</b>
<b>What do I need to achieve?</b>
<b>Actions:</b>
<b>Support required:</b>
<b>Measure(s) of success:</b>
<b>Review date(s):</b>
<b>Achievement date:</b>

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# Group action plan

Following the group reflection on the session, complete this action plan to support the department's continued development.

<b>Department goal:</b>
<b>Where is the knowledge and expertise?</b>
<b>Actions:</b> Who has ownership of each area?
<b>Support required:</b> How will we work together? How will we hold each other to account?
<b>Measure(s) of success:</b> How will we evidence achievements?
<b>Review date(s):</b>
<b>Achievement date:</b>

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# Notes

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## Contact us

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