



UNIVERSITY *of* CAMBRIDGE  
International Examinations

# STUDENT PROGRESS ASSESSMENTS

150  
YEARS  
1858–2008

PART OF THE  
CAMBRIDGE ASSESSMENT  
GROUP



## OUTCOMES???????

- To move further towards a system of ongoing assessment.
- To support pupil improvement.
- Increase the range of assessment methods.
- Better feedback on progress for pupils, teachers and parents.



## KEY QUESTIONS

- What shall we assess?
- Why shall we assess it? (What will it tell us and the pupils)
- How shall we assess it?
- How can we report it?
- What do teachers want?
- What do Principals want?
- What do parents want?



# ASSESSMENT OBJECTIVES

- ‘O’ Level :
- Knowledge with Understanding (define, state, describe, explain or outline)
- Handling Information and Solving Problems (predict, suggest, construct, calculate or determine)
- Experimental Skills and Investigation.
- Will these work for the Lower Secondary Science scheme?



## KEY SKILLS AND ASSESMENT SPECIFICATIONS (What and Why)

- TASK: Reviewing assessment objectives.
- TASK: Identify the assessment objectives for your course.
- Decide on their weightings. This will reflect their importance to your course and it's teaching.
- TASK: When will you test? End of the course; End of the year; End of topic.
- Produce an assessment specification for a test. This should include assessment objectives, content tested, number of items. [MOCK ASSESS SPEC.doc](#)



## LEVEL DESCRIPTORS

- Will a five point scale work?
- Can we have a common pattern across each assessment objective for the progression in expertise?
- Choose one assessment objective. What description should be used for each level?
- Level 1 is a weak student.
- Level 3 is a medium ability student.
- Level 5 is a very able student.



## Sample level descriptors

- LEVEL 1:
  - Can follow simple instructions with help.
  - Can use simple practical methods, measure and handle materials with help.
- LEVEL 3
  - Can follow instructions without help.
  - Can use practical methods, measure and handle materials without help.
- LEVEL 5
  - Can follow the instructions for complex practicals.
  - Can use complex practical methods, measure and handle materials skilfully.



# MARKING, RECORDING & FEEDBACK

- MARKSCHEMES
- TASK: review the examples of markschemes and identify the features that should be included in a good markscheme.
- RECORDING DATA
- A recording system: [Year 8 - Science Assessment Record example.xls](#)
- FEEDBACK TO PUPILS.
- Review tests with pupils: [TEST EXEMPLARS\YEAR 8 TRACKER.doc](#)



# MARKSCHEMES

- Accurate answers.
- Matches the questions.
- Easy to read. Unambiguous.
- Clear allocation of marks.
- Number of marks match the question difficulty.
- Clear instructions for use.
- Alternatives stated where necessary.
- Unacceptable answers may be stated.
- Mark total is correct.
- Need to be reviewed regularly to confirm it's accuracy.
- Cambridge Lower secondary markschemes are a good model.



## COMPLETION QUESTIONS

- Good for: testing recall; easy to write; quick to answer; easy to mark accurately.
- Beware: a poor question can have several answers.



## COMPLETION question checklist

- Do not use phrases from a textbook.
- Assess knowledge.
- Only one answer can be correct.
- Blank at the sentence end.
- Keep blank length the same.
- Specify units for numerical answers.
- Do not give clues in the sentence.



## SHORT ANSWER QUESTIONS

- Good for: assessing knowledge; natural response form; questions or responses to diagrams or general directions e.g. define the...;
- Beware: marking takes longer; marking can be more subjective.



## SHORT ANSWER question checklist

- Do not use questions from a textbook.
- Assess knowledge.
- Only one answer can be correct.
- Make it clear that a brief answer is needed.
- Keep the item brief.
- Specify units for numerical answers.
- Use accessible language in the item.
- Match the space for the answer with the length of answer needed.



## MATCHING ITEMS

- Good for: assessing students knowledge of relationships eg. Terms and definitions; easy to score objectively;
- Beware: lack of material in the item; irrelevant information
- Matches PREMISE (left side) to RESPONSE (right side)



## MATCHING QUESTION CHECKLIST

- Clear instructions: how and where answers go, how many times a response can be used,
- Keep to one type of information eg. Don't include information across topics.
- Use four to eight premises.
- Keep responses short and logically ordered.
- More responses than premises.
- Only one answer per premise.
- Premise and response are on the same page



## TRUE/FALSE AND BINARY QUESTIONS

- Select from one of two responses.
- Test claims about knowledge.
- Simple, direct test of knowledge, facts, definitions.
- Easily and objectively scored
- Beware: one response must be absolutely correct.



## BINARY CHOICE CHECKLIST

- Is their only one idea.
- Answer consistent with the statement.
- Statements succinct.
- Item stated positively.
- Length of items similar.
- Test a single fact or idea.
- Don't trick students.
- Don't test trivial ideas.
- Avoid vague terms eg. Sometimes, usually.



## MULTIPLE CHOICE

- Comprise:
- A STEM- question or incomplete statement
- ALTERNATIVES- three or more, with ONE answer and DISTRACTORS.
- Can ask for the “best” answer. This measures understanding. Good for discrimination. Each answer is correct, but one is better.
- Reliable and easily scored.
- Distractors can be used to identify misconceptions.
- BEWARE: hard to write good distractors; take longer to answer’



# MULTIPLE CHOICE CHECKLIST

- Stem is clear, direct and positive.
- Problem contained in the stem.
- Only one correct answer.
- Alternatives are similar length, complexity.
- Short, simple options in a logical order.
- No irrelevant clues.
- Plausible distractors.
- Correct answers spread evenly among choices.



## ITEM WRITING

- **TASK**
- Organise your group into pairs.
- Identify which area of your syllabus you will write items for. Ensure the assessment specification is fully covered. Use a variety of question styles.
- Review items with your group and modify, if needed.
- **OUTCOMES**
- Test items exemplifying a range of question styles.
- Test items covering the full range of assessment objectives.



## ITEM REVIEW

- Use the checklists to assess question quality.
- Assess the accuracy of the question.
- Does it test what it sets out to test.
- Use your professional judgement. Does it look like a good question.
- Check the markscheme for the item. Can it be followed? Is it correct? Are there other alternatives?



## ITEM SHREDDING

- What answers would it produce?
- Does it test one idea or many?
- Which answers are worth a mark?
- Does it discriminate?
- How many words can be removed without changing the sense of the question?
- How many difficult words can be replaced with easier ones?
- Improve the question or replace it?



# ASSEMBLING SPECIMEN PAPERS

- What should I remember:
- Have you covered the range of assessment objectives?
- Is there a range of question styles?
- Is there a range of question difficulty?



CONTENT	ASSESSMENT OBJECTIVES		NUMBER OF ITEMS	%
	Knowledge & Understanding (65%)	Application (35%)		
CELLS	5	0	5	8
PHOTOSYNTHESIS	14	6	20	33
DIGESTION	14	6	20	33
RESPIRATION	12	3	15	25
TOTAL ITEMS	40	20	60	