



# FORMATIVE USE OF SUMMATIVE ASSESSMENT IN YEAR 7 SCIENCE

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# The Issue

- Our current secondary science education curriculum purely focuses on rote learning and summative assessments in Year 11 and 13.
- At our school, Year 7s are subject to 6 end-of-topic tests, plus an end-of-year test in Science. The way we prepare students for these assessments is inconsistent.
- Exploring whether teaching ‘exam technique’ before exams, explaining exam ‘command words’ early on and modelling good technique with instant feedback within the exam ‘walking-talking mock’ style would improve outcomes at the end of the year.

# Benefits to the School

- Embedding this into our science department scheme of work in every year is simple with relatively little extra work.
- Improves how our science department trains students for the exams they will face at the end of Year 11 and A-Level as soon as they start.
- Encourages good habits to form over a student's school career, to improve outcomes in summative assessments in Year 11 and Year 13.

# Research Questions

1. Does using summative assessment formatively at the start of Year 7 improve student attainment as a year group?
2. Does using summative assessment formatively at the start of Year 7 improve student attainment between comparable students at KS2, CATS and FFT targets?
3. Which methods did teachers find most effective to teach 'exam technique' to Year 7 students?



# Planned Methodology

## ■ Sample

- Five Year 7 classes taught by four different teachers (selected based on module rotations).
- These classes will complete the first two end-of-topic tests in a ‘walking talking mock’ style, as well as giving them more exam technique feedback during revision lessons.

## ■ Control

- The remaining six Year 7 classes will sit all end-of-topic tests as normal.

## ■ Results

- Data from the third and fourth end-of-topic tests, as well as end-of-year test compared across the year group, as well as to historic Year 7 test data.
- Smaller, more in-depth look at 10 key students across the year group who attained similarly in KS2, CATS and have the same FFT target levels in order to see if there was any significant difference in student outcomes.

## ■ Teacher and Student Views

- Interviewing teachers on how they felt the different assessment style prepared students for future assessments.
- Surveying students by asking 3 further questions within our usual end-of-topic feedback form to see whether students found the intervention useful.

# Resources

## SOME TOP TIPS

- When you first read a question, make sure you **underline** the command words in the question. Use the command words table on your desk to help you.
- Look at the **number of marks** for the question. That usually tells you how many things you need to do.
  - If there is one mark, then only tick one box, or give one fact.
  - Sometimes the question will tell you how many things to do.
- For example: Give **TWO** reasons...  
Only give **TWO** reasons or risk losing marks if you give more or less than two reasons.

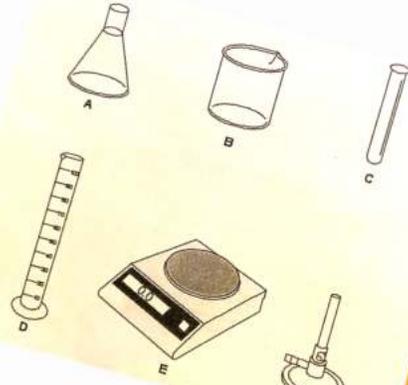
### Q1ai

The diagram below shows six pieces of equipment.

a) Linda investigates how quickly sugar dissolves in water.

- i) **Which** piece of equipment does she use to weigh 5g of sugar? Tick the correct box. (1 mark)

**WHICH** is the command word. Use your table to find out what it means.



KS3 Command Words

Command Word	Meaning	For Example...
Which	Select an <b>option</b> from some options that are <b>given to you</b> in the question	A, B, C, D
What	Asking you to remember a <b>specific fact</b>	Might be: A name What a piece of equipment does
How	Asking you to tell us <b>in what way</b> something works	Asking you how you know something happened
Why	It is asking you to <b>give a reason</b> why something has happened	Asking you why something happened
Choose	Select an <b>option</b> from some <b>words that are given to you</b> to complete a sentence	Fill in the blanks using words that are given to you
Name Give the Name State	<b>Tell them the name</b> for the equipment or scientific process they are asking about in the question	Name the equipment in the diagram
Describe	Remember a <b>fact</b> about what is being asked in the question	Tell them how a scientific process works
Explain	Asking you <b>why</b> something happened	
Number		1 23 0.5

# Changes to Methodology

(due to lockdown)

- **Sample and Control**

- No changes

- **Results**

- Data from first, second and third end-of-topic tests compared across the year group – no end of year test or fourth end-of-topic test data available, therefore harder to draw conclusions.

- **Teacher and Student Views**

- Teacher interviews to be conducted online.
- End-of-test feedback from students only available for some tests from some classes due to staff absence (before lockdown).

# Changes to School Culture (as a result of project)

- Teachers that participated preferred the structure of the WTM style of teaching at the start of the year.
- Focus on command words in Year 8 and Year 9 already implemented in scheme of work.
- Year 8 'walking talking mock' style exams already created for some Year 8 modules.



# Key Literature

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