

Science 'Presentation, Marking and Feedback' eBook.



BROUGHTON

HIGH SCHOOL

The rationale of the Science exercise book:

- ✓ Science exercise books are used by the pupils to **record notes, develop ideas and practice skills** e.g **recording results, drawing graphs, calculations, writing explanations, answering questions.**
- ✓ Work should always be well presented and of the highest quality. All worksheets should be glued-in.
- ✓ Pupils should use a pencil and ruler when drawing a results table and only use a pencil when plotting a graph.
- ✓ **Exercise book layout**
 - KS3**
 - Laboratory safety rules
 - Science marking codes
 - End of unit test record sheet
 - KS4**
 - Command words
 - Science marking codes
 - *Laboratory safety rules to go in the front of core practical book
- ✓ At KS3 pupils also use a Core practical workbook and homework booklet.
- ✓ At KS4 pupils complete all Core practical work in a separate core practical book.
- ✓ **Colours of exercise books**
 - Year 7 **purple**
 - Year 8 **red**
 - Year 9 **dark green**
 - Biology **pale green**
 - Chemistry **blue**
 - Physics **yellow**

Marking and feedback policy in Science:

- ✓ Pupils should receive feedback from teachers every fortnight (in line with the school's marking and feedback policy).
- ✓ Feedback can take a range of different forms such as: peer, self and teacher marking; verbal feedback and whole-class feedback.
- ✓ It is important that pupil effort is recognised and rewarded and any sub-standard work re-done.
- ✓ Teachers should use the whole school and science specific marking codes to make marking manageable and consistent within the department.
- ✓ Exercise books and homework booklets are a combination of teacher and self marking.
- ✓ Core practical books at KS3 and KS4 are marked by teachers.
- ✓ Pupils complete end of unit tests at the end of each topic (approximately one per half term). These are marked by the teacher and followed up by a lesson that is dedicated to reflection, improvement and addressing misconceptions.
- ✓ Pupils should use a blue or a black pen when completing work. A purple pen is used when a pupil responds to feedback and a red pen is used when a pupil self-edits or proofreads their work.

Drawing graphs in Science:

- ✓ Pupils should use a pencil and ruler when drawing the axes and a pencil to plot the points and label.
- ✓ All pupils to be given a graph checklist that is to be glued on the graph. This is to be used by both pupils and teachers to check that all the criteria has been covered.

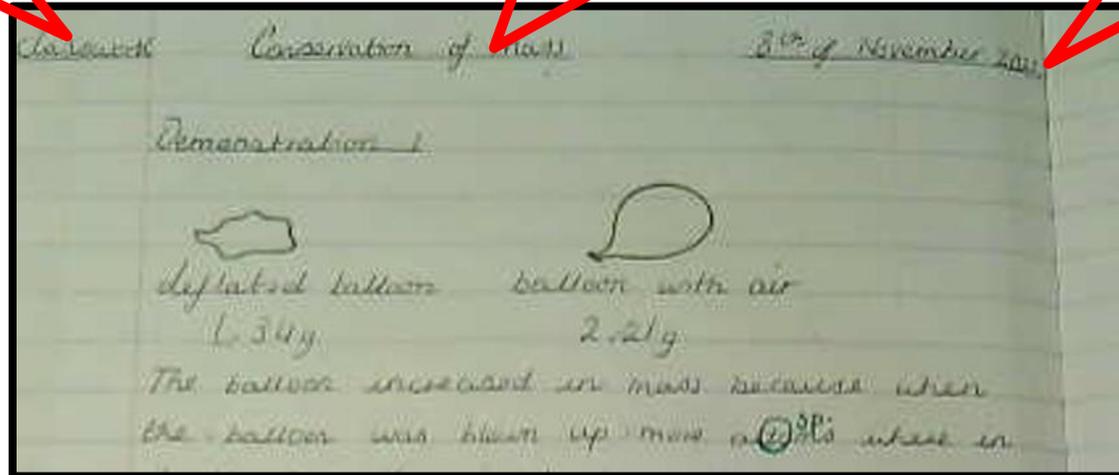
<u>Graph checklist</u>	<u>✓/x</u>
X axis correctly identified	
X axis scale	
X axis labelled with units	
Y axis correctly identified	
Y axis scale	
Y axis labelled with units	
Points plotted accurately	
Line/curve of best fit	
Title identifying dependent and independent variables	
Key	

How a pupil should set their work out:

Classwork or homework should be recorded in the margin and underlined

The title should be in the centre of the page underlined with a ruler.

The date should appear on the right hand side of the page and be underlined with a ruler.



The marking and feedback codes in action:

Conservation of mass Task 7

1 24 g of magnesium were burned in oxygen. The compound formed had a mass of 40 g. Explain why the mass has gone up.

The atoms chemically bond.
when burned oxygen does weigh something
so it will just add on to the magnesium.

2 State the name of the compound formed in Question 1.

magnesium oxide

3 64 g of sulfur dioxide (SO₂) contains 32 g of oxygen. Calculate how much sulfur it contains.

64
- 32

32

32g of sulfur

4 Describe what the answer to question 3 tells you about the mass of sulfur atoms compared to oxygen atoms.

The mass is the same x
sulphate atom has twice the mass of an oxygen atom

5 Megan wanted to make some calcium chloride (CaCl₂) for an experiment. She knew that for every 40 g of calcium there would be 71 g of chlorine. Megan only used 20 g of calcium. Calculate how much chlorine would be in the compound.

35.5g 40g - 20g (1/2) 71 - 2 = 35.5

9 Explain how you know the alleles of Max and Bonnie.

if they both had an eye patch
so they both have the
dominant allele.

Max and Bonnie have an eye patch therefore they
have at least 1 dominant allele, however Snowy
doesn't have an eye patch and so has the allele
ee. This means both parents must carry the recessive
allele.

10 Draw a Punnett square to show how Snowy inherited the alleles from her parents.

		E	e
M	E	EE ✓	Ee ✓
	e	Ee ✓	ee

Remember, males go on the top of a Punnett square, Max females on the left.

	E	e
Bonnie	EE	Ee
Max	Ee	ee

11 Use the information from your Punnett square to calculate the chance that Snowy would have no eye patch. Give your answer as a probability, a fraction, and a percentage.

50% , 1/2 , 1 in 2 x

1 in 4 or 25%
of no eye patch

Sp dominant (x3) dominant dominant dominant A good effort!

Pupils respond to feedback in purple pen either by adding/amending their work.

Subject-specific spellings should be completed three times.

Example of work that has self-marked and improved using purple pen.

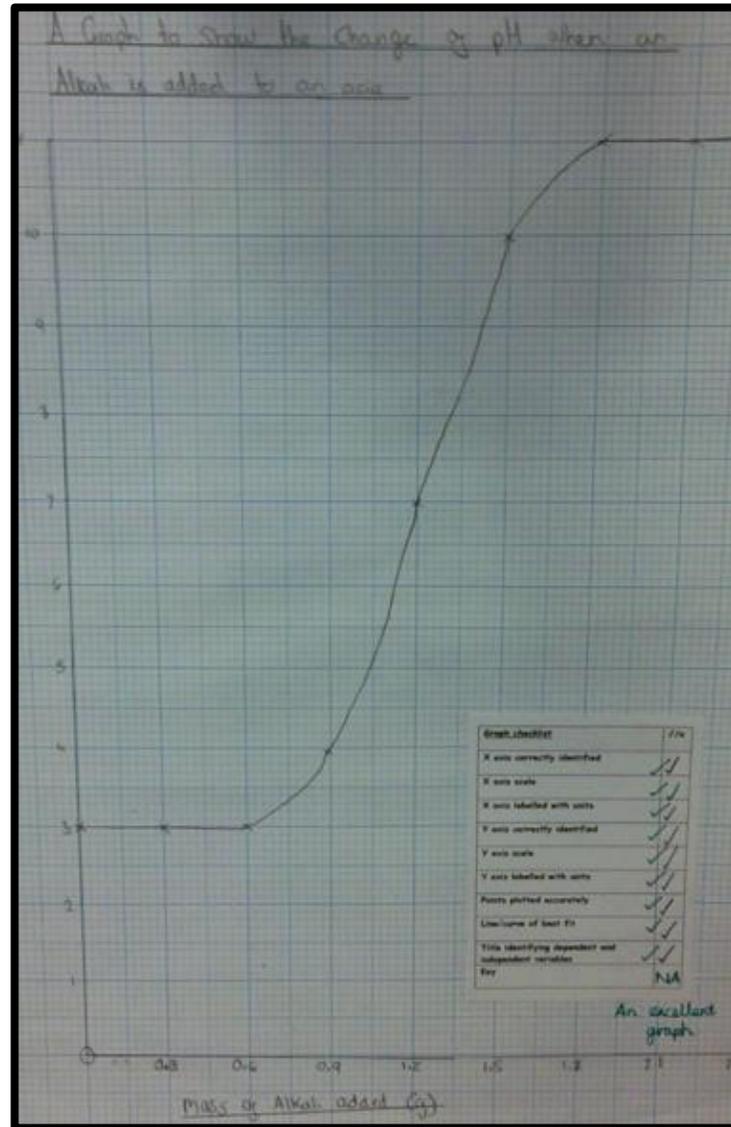
filter filter SCREEN

2. No light reached the screen. Explain why.

No light reached the screen because red and green are both primary colours of light, so they aren't made up of any other colours, like secondary colours. If they had a colour(s) in common, then it would reflect that colour. (2 marks) 0/2

* So they won't mix together. ~~allowed~~ only red light is allowed through the red filter and all the other colours are absorbed. The green filter would absorb the red light.

Example of a graph and use of graph checklist.

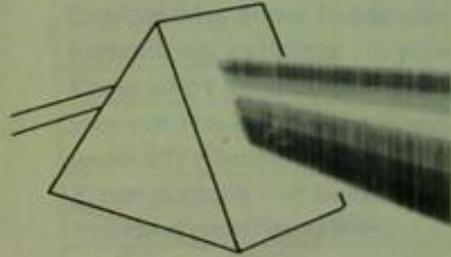


Year 8

Science Homework Tasks

Higher Level

- Nutrition and digestion
- Cellular respiration
- Earth and atmosphere
- Light waves
- Sound waves
- Observed waves



Task number	Teacher comment
1	7/7 
2	14/15 ✓
3	9/9 
4	10/14 good effort 😊
5	✓
6	10/13 
7	7/8
8	7/8 excellent 😊
9	9/9 
10	✓
11	10/10 
12	8/8
13	4/5 Great!
14	6/8 Use key words absorb & reflect
15	Copied up ✓ ✓ S/S