



KS3 Science

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- <https://youtu.be/AWtRadR4zYM>

First Attempt In Learning



What we want from the students

- To enjoy being challenged and finding things difficult
- To make mistakes and learn from them
- Not be afraid to try and get things wrong - even if they don't succeed the first time or the second....
- Act on the feedback given verbally and written in their books
- THINK!!

Focus on learning goals rather than performance goals

- A performance goal:
 - The end result ie. their target grade
- A learning goal:
 - Focussing on the development of knowledge and understanding

How can you help?

1. Praise and reward

- effort
- resilience
- determination
- Overcoming obstacles that at first seem impossible

Encourage self-belief and resilience.

- I couldn't do it either **becomes** I'm sure if we look at it together we can work out a solution
- It's too hard **becomes** challenges are good because you're brain's having to work hard
- Mistakes **becomes** good mistakes
- I can't **becomes** I can't yet

How to get better in Science

- Focus on learning goals rather than performance goals
- Eg. Your daughter is disappointed after achieving a low percentage/grade in a topic test.
- How can you help?
- Encourage your daughter to pick out three areas to focus on from the topic test and discuss what they could do to improve these areas.
- In the next topic test and/or end of year exam look back to the areas identified to focus on to see if there is an improvement.

Good Mistakes 😊

2B

I did not say that combustion of fossil fuels produces carbon dioxide.

I instead discussed the global warming green house effect which was related to the topic but not directly to the question.

- I have learnt to make sure I am understanding what exactly the question is asking for

1a

I drew the arrow to show the activation in the wrong place.

The arrow had to be more central and longer.

- I have also learnt the arrow can only have one arrow head.

KS3 AQA

- Taught under 10 big idea topics
- Spiral design
 - Develop an understanding with multiple interactions
- Engaging lessons with a new theme every lesson
- Learn to see the world analytically
- Focus on skills
- Prepares students for study at GCSE
- Taught over 2 years

<https://www.aqa.org.uk/subjects/science/ks3/ks3-science-syllabus>

	Part 1 Taught in year 7		Part 2 Taught in year 8	
Forces	Speed	Gravity	Contact forces	Pressure
Electromagnets	Voltage and resistance	Current	Electromagnets	Magnetism
Energy	Energy costs	Energy transfer	Work	Heating and cooling
Waves	Sound	Light	Wave effects	Wave properties
Matter	Particle model	Separating mixtures	Periodic table	Elements
Reactions	Metals and non-metals	Acids and alkalis	Chemical energy	Types of reaction
Earth	Earth structure	Universe	Climate	Earth resources
Organisms	Movement	Cells	Breathing	Digestion
Ecosystem	Interdependence	Plant reproduction	Respiration	Photosynthesis
Genes	Variation	Human reproduction	Evolution	Inheritance

Focus on working scientifically

Analyse

- Analyse patterns
- Discuss limitations
- Draw conclusions
- Present data



Communicate

- Communicate ideas
- Construct explanations
- Critique claims
- Justify opinions



Enquire

- Collect data
- Devise questions
- Plan variables
- Test hypotheses



Solve

- Estimate risks
- Examine consequences
- Review theories
- Interrogate sources



Science Classes

- There are 6 science classes – all mixed ability.
- Classes will either have 1 or 2 science teachers.
- 6 lessons per fortnight
- Homework set 3 times a fortnight – 20mins per piece

Assessments:

Baseline test – already completed in class

Regular mini topic assessments by teachers in class

Cumulative assessments each half term

- Data reviewed by teacher and KS3 Science Coordinator
- Interventions put in place if required

How can you check progress?

- Flight paths in the front of exercise books
- Learning journals
- Termly assessments sent home once per half term

Name: _____ Set: _____

Mark: ____/60 %: _____ Assessment grade: _____ Target grade: _____

Exam analysis

Q	Topic	SMJ	Reason for loss of mark							Year Score	%	
			1	2	3	4	5	6	7			
1-10	Forces	Know								Other		75%
11-15	Forces	Apply										75%
13-14	Forces	Extend										75%
1-10	Electromagnets	Know										75%
11-12	Electromagnets	Apply										75%
13-14	Electromagnets	Extend										75%

REASONS

- 1) Incomplete revision 2) Calculation error 3) I did not explain clearly 4) I misread the question
 5) I did not understand the question 6) Ran out of time 7) Silly mistake

Score without silly mistakes would have been: _____/60 _____%

<p><u>Specific Areas of weakness:</u></p> <p>-</p> <p>-</p> <p>-</p>	<p><u>Specific Areas of strength:</u></p> <p>-</p> <p>-</p> <p>-</p>
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Possible areas of improvement: (tick which apply to you)

To read questions more carefully	Revise a particular topic in more detail
To answer every single question even if you don't know the answer	To use the correct scientific terms in your answers
To check through answers at the end of the test	Explain your answers in more detail
To improve drawing graphs correctly	Check you have included enough points for the marks available

Smart target to improve:

I need to improve: _____

and I will make sure I meet this target by: _____

SPECIFIC MEASURABLE ACHIEVABLE REALISTIC TIMELY

Checked by teacher: _____

How can you help your daughter?

- Help with research homework – particularly finding suitable sources of information
- Encourage them to review new learning regularly
- Help plan revision for assessments
- Purchase a KS3 study guide/workbook (CGP are recommended)
- Visit science related museums or exhibitions
- Discuss science in the media
- Encourage use of the library
- Encourage them to respond to feedback from teachers

Revision Guide

- CGP
- KS3 Science
- Complete study & Practice
- (this one has the exam questions)



KS3
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Complete Study & Practice

Computer Science

- The most important thing is that students get lots of chances to think through problem solving activities at home, e.g. finding the most efficient way to get through a set of shops on a shopping trip.
- They will be coding in Javascript and Python and learning some HTML this year.
- Websites that may help with this at home include:
 - <http://www.practicepython.org/>
 - w3schools.com