GCSE Science

Miss Marsh
Curriculum Area Leader
smarsh@jackhunt.net

Mr Ward
Deputy CAL and KS4 Coordinator
bward@jackhunt.net

Two Routes

- AQA GCSE Combined Science: Trilogy (sets 2-7)

- AQA GCSE Separate Sciences: Biology, Chemistry, Physics (set 1 only)

Combined Science: Trilogy

Biology Paper 1

- Cell biology
- Organisation
- Infection and response
- Bioenergetics

Biology Paper 2

- Homeostasis and response
- Inheritance, variation and evolution
- Ecology

Chemistry Paper 1

- Atomic structure and the periodic table
- Bonding, structure and the properties of matter
- Quantitative chemistry
- Chemical changes
- Energy changes

Chemistry Paper 2

- The rate and extent of chemical change
- Organic chemistry
- Chemical analysis
- Chemistry of the atmosphere
- Using resources

Physics Paper 1

- Energy
- Electricity
- Particle model of matter
- Atomic structure

Physics Paper 2

- Forces
- Waves
- Magnetism and electromagnetism

Required Practicals

- Students will complete 21 required practicals during lessons
- Skills developed during the required practicals will be assessed across all papers

Total of six papers: two biology, two chemistry and two physics.

Each paper lasts 1 hour 15 minutes

Each paper is worth 16.7% of the GCSE

Separate Sciences – Biology

Paper 1

- Cell biology
- Organisation
- Infection and response
- Bioenergetics

Paper 2

- Homeostasis and response
- Inheritance, variation and evolution
- Ecology
- Key ideas

Required practicals

- Students will complete 10 required practicals during lessons
- Skills developed during the required practicals will be assessed across all papers

Two papers:

Each paper is worth 50% of the GCSE

Each paper lasts 1 hour 45 minutes

Separate Sciences – Chemistry

Paper 1

- Atomic structure and the periodic table
- Bonding, structure and the properties of matter
- Quantitative chemistry
- Chemical changes
- Energy changes

Paper 2

- The rate and extent of chemical change
- Organic chemistry
- Chemical analysis
- Chemistry of the atmosphere
- Using resources

Required practicals

- Students will complete 8 required practicals during lessons
- Skills developed during the required practicals will be assessed across all papers

Two papers:

Each paper is worth 50% of the GCSE

Each paper lasts 1 hour 45 minutes

Separate Sciences – Physics

Paper 1

- Energy
- Electricity
- Particle model of matter
- Atomic structure

Paper 2

- Forces
- Waves
- Magnetism and electromagnetism
- Space Physics

Required practicals

- Students will complete 10 required practicals during lessons
- Skills developed during the required practicals will be assessed across all papers

Two papers:

Each paper is worth 50% of the GCSE

Each paper lasts 1 hour 45 minutes

NEW GCSE (9-1), (9-9 to 1-1)

SCIENCE GRADING

BIOLOGY, CHEMISTRY, PHYSICS	COMBINED SCIENCE
9	9-9
8	9-8 8-8
7	8-7 7-7
6	7-6 6-6
5	6-5 5-5
4	5-4 4-4
3	4-3 3-3
2	3-2 2-2
1	2-1 1-1
U	U

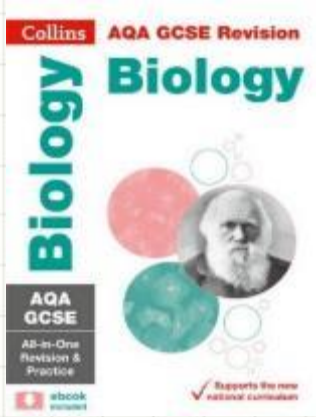
Needed for A Level Sciences

Counts as two 4s for sixth form entry;
Needed for Level 3 Applied Science

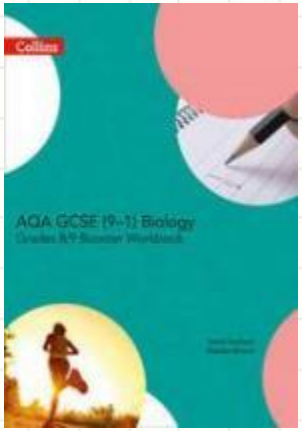
Revision Guides

- These can be purchased on ParentPay from w/c 5th October 2020

Separate Science



£3.99



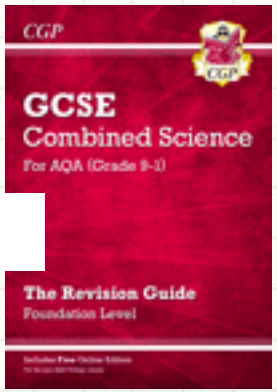
£4.99

Combined Science

(Higher or Foundation)

£9

or



£5.60

Revision Support

- Weekly fact recall questions in lessons

  (booklet with questions and answers is on Firefly)
- Revision resources on Firefly
- Educake

		Question from:	Question		Answer
Interleaved Questions		229	18	How many electrons does calcium have?	20 (same as atomic number!)
			105	Explain why methane has a low melting point	It is a simple molecular substance with weak forces between the molecules (which are easy to break)
			162	How do you measure pH?	With an indicator or pH probe.
Topic Questions	1	3	1	Define an atom	The smallest part of an element that can still be recognised as that element
			2	Define element	A substance made of only one type of atom
			3	Define compound	A substance made of two or more different atoms chemically bonded together

firefly

Other Revision Resources

Click on the images below to go to the website:

Tips for Success

Encourage your child:

- To work hard in lessons and ask for help when needed,
- To regularly work through tasks on **Educake**
- To practice exam questions,
- To learn the fact recall questions ready for the weekly tests,
- To use Seneca Learning,
- To access other revision resources

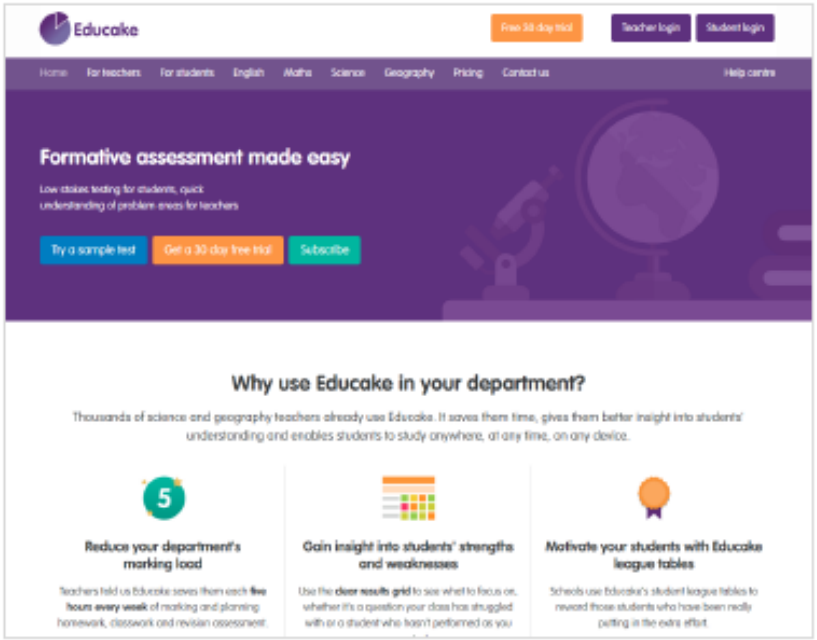
Educake

Educake is a website for homework, classwork and revision

Teachers can set you homework with Educake

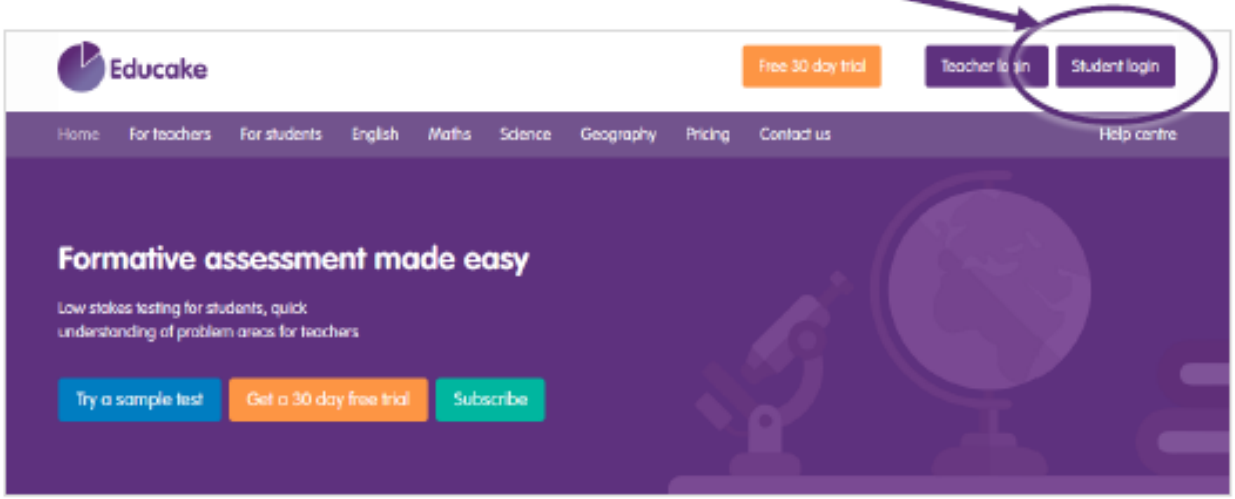
You can set yourself revision tests

Educake works on PCs, tablets and smartphones



How do you log in to Educake?

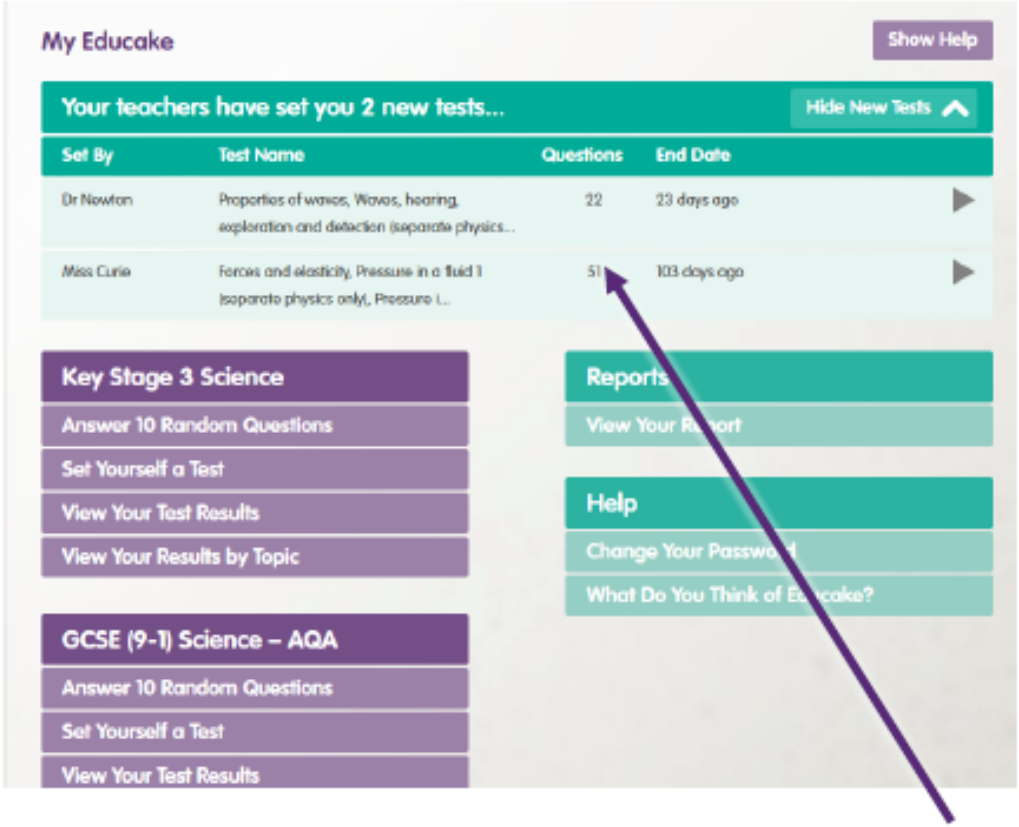
- Go to www.educake.co.uk in a web browser, like Chrome or Safari
- Click on the "Student Login" button:



- Enter the username and password your teacher gave you
- Usernames are your first name, then the first letter of your last name, then a 4 digit number.
- For example, Brian Pie's username might be brianp0007

How do I answer a test?

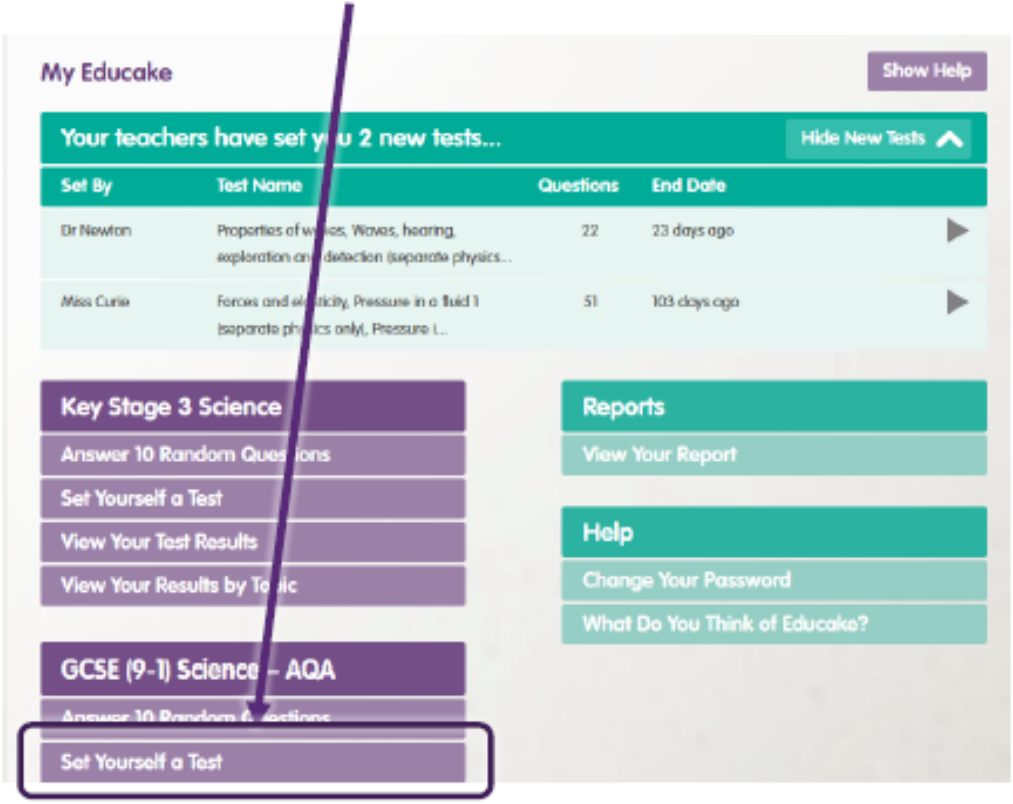
- When you log in you will see this page:



- Tests your teachers have set you are in green at the top
- Click on a green test to take it and answer the questions

How do I set myself a test?

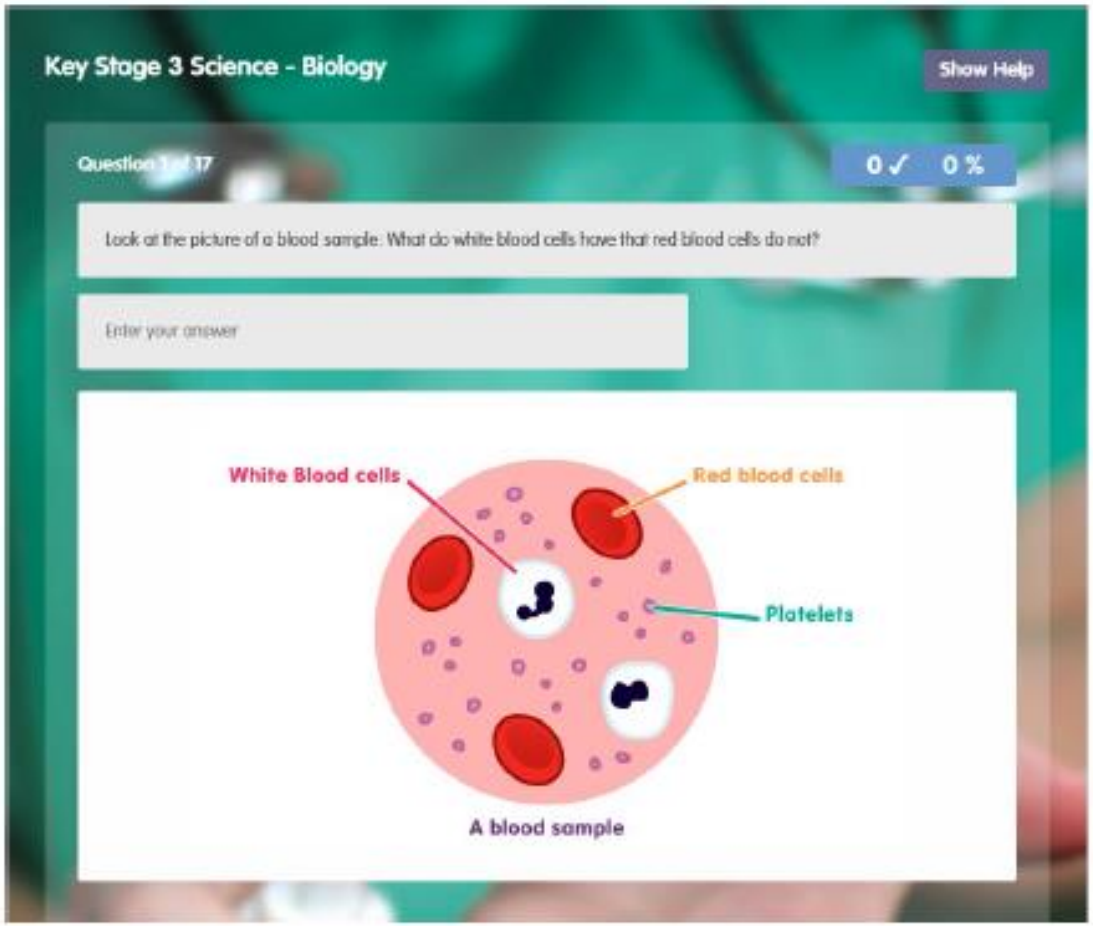
- Click on "Set Yourself a Test" to revise a topic



- You can choose the topics you want to revise
- You can choose the number of questions you want to answer

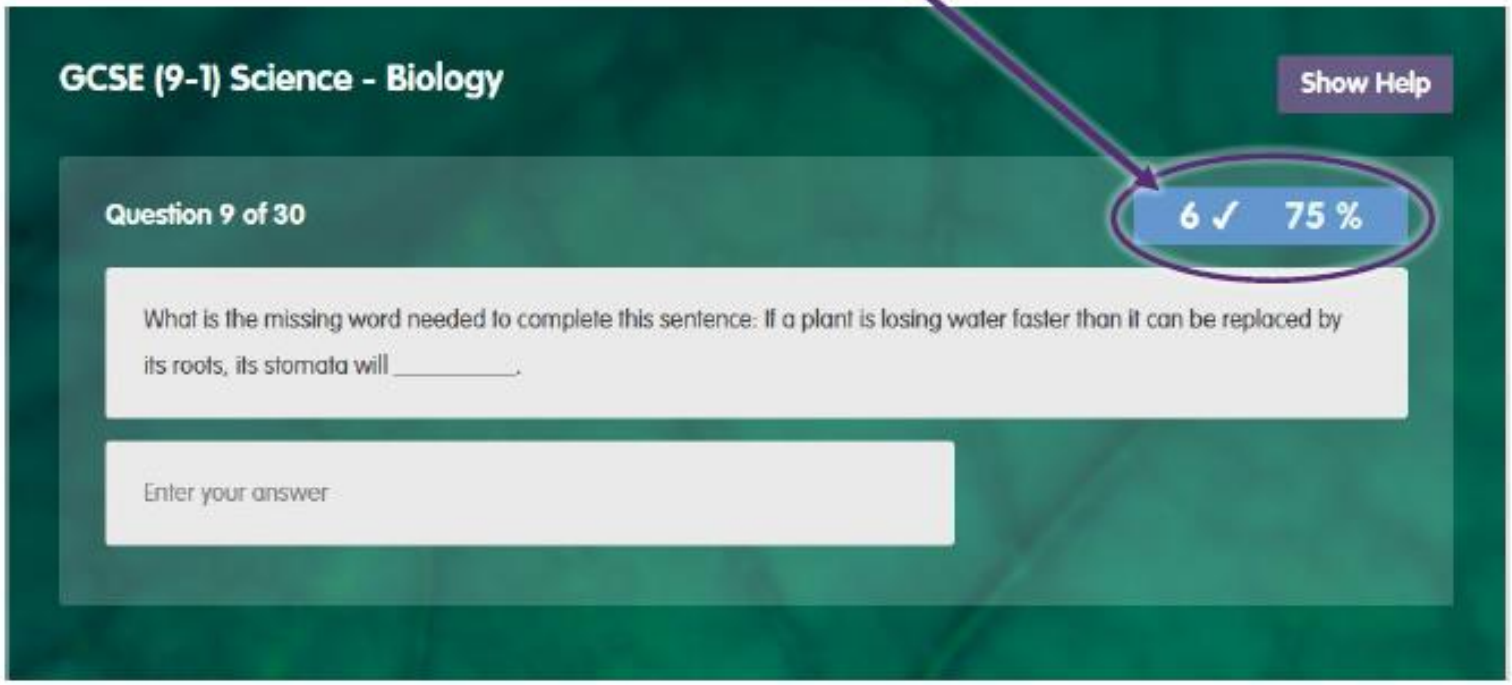
What are Educake tests like?

- Educake tests are made of short questions
- They are carefully-written to improve your knowledge and understanding



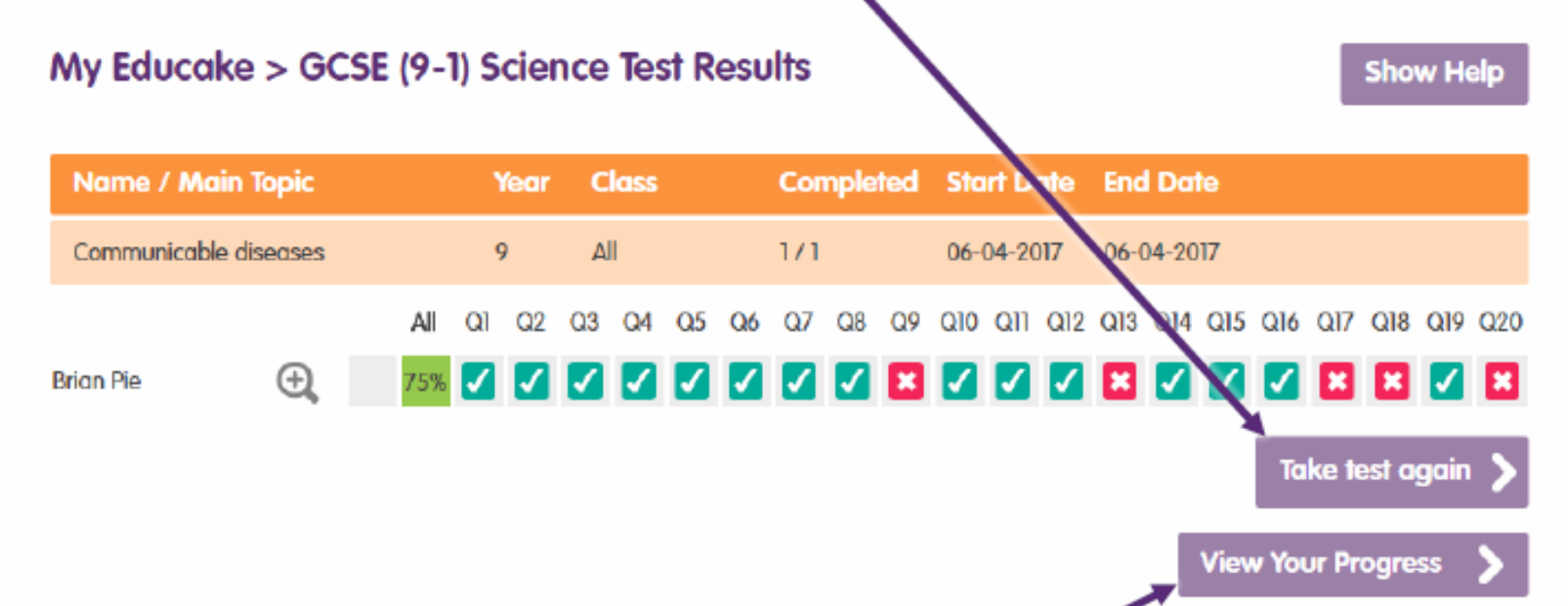
What are Educake tests like?

- The questions aren't all multiple choice
- You usually type in the answer
- Educake accepts small spelling mistakes
- Your score so far on the test is shown here:



What happens when I finish a test?

- When you finish a test you can see your results
- You can take tests again by clicking here:



- You can view your progress by clicking here:

View your progress each time you finish a test

- Topics you know well are coloured green
- Topics you need to revise more are coloured red
- Click on a topic to take a revision test on it