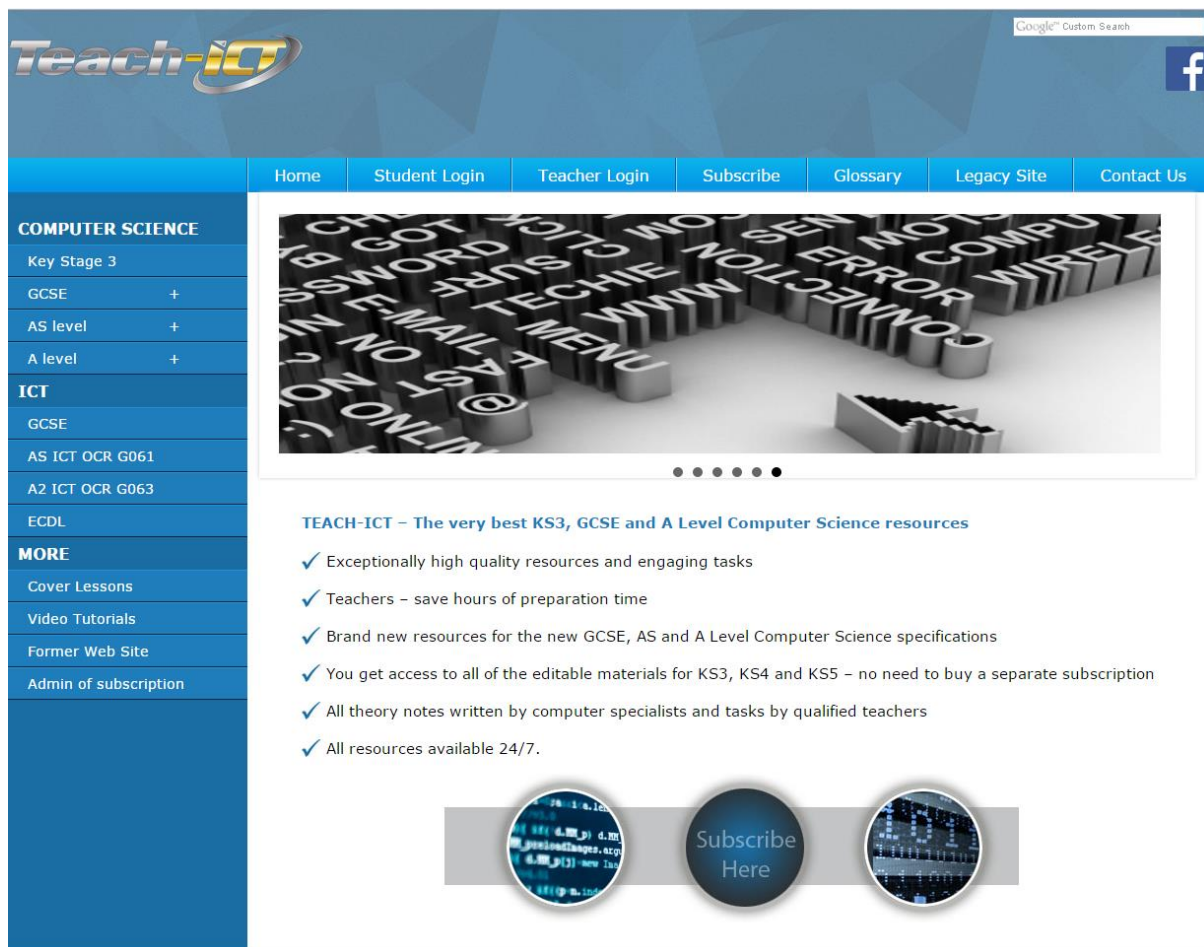


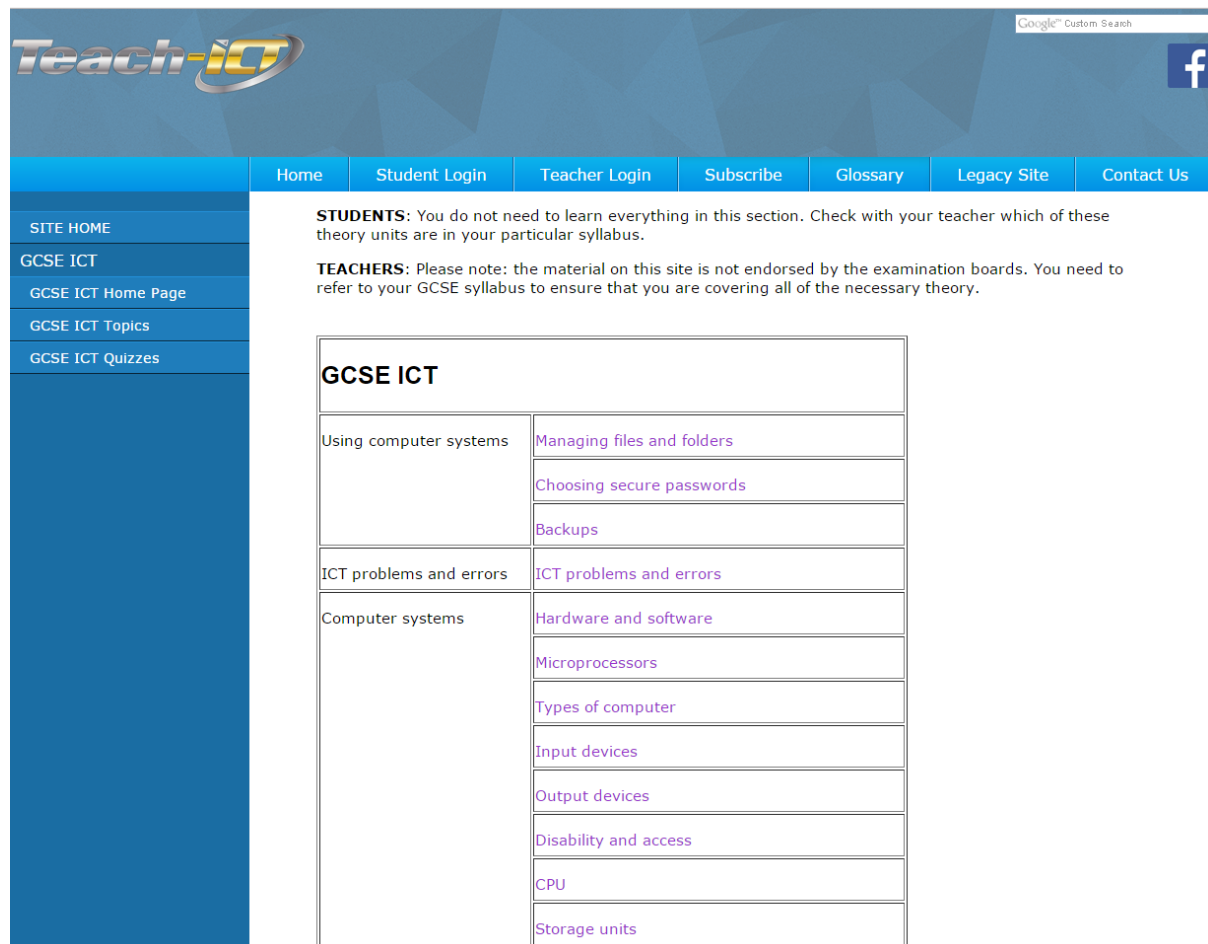
Research the Problem: Teach ICT learning resource

This is an educational website that focuses on teaching computing, computer science and ICT at all pre-university levels.



An alternative solution would be to make an online educational resource to help students feel more prepared before GCSE as a method of increasing the interest in the sciences, as students should have no reason to shy away. Of course, this does not reflect my current solution of a 2D platformer with science themes, as I decided to focus on my client's point of fun over education.

Even though it doesn't fulfil my client's wish for a fun resource that isn't openly education, as it is definitely a solution to a similar problem, I find reason to deconstruct it and see key features. In the image above, you can see we'll be focusing on GCSE ICT (while the context may not be of interest, the methods they use are).



The screenshot shows the Teach-ICT website. At the top, there is a header with the 'Teach-ICT' logo, a Google Custom Search bar, and a Facebook icon. Below the header is a navigation bar with links: Home, Student Login, Teacher Login, Subscribe, Glossary, Legacy Site, and Contact Us. On the left side, there is a vertical menu with links: SITE HOME, GCSE ICT, GCSE ICT Home Page, GCSE ICT Topics, and GCSE ICT Quizzes. The main content area contains two paragraphs of text for students and teachers, followed by a table titled 'GCSE ICT'.

STUDENTS: You do not need to learn everything in this section. Check with your teacher which of these theory units are in your particular syllabus.


TEACHERS: Please note: the material on this site is not endorsed by the examination boards. You need to refer to your GCSE syllabus to ensure that you are covering all of the necessary theory.

GCSE ICT	
Using computer systems	Managing files and folders
	Choosing secure passwords
	Backups
ICT problems and errors	ICT problems and errors
Computer systems	Hardware and software
	Microprocessors
	Types of computer
	Input devices
	Output devices
	Disability and access
	CPU
	Storage units


Within the GCSE level, while the aesthetic design is rather low, the site does a very good job of navigation. As the site offers materials from KS3 to KS5, this is very important, the collapsible side bars help you get to the subject you need at the level you are studying. The figure above is also very pleasing. This page shows all the topics in GCSE ICT, each one then has its components shown with links to the task. Being able to break things down not only will help the brain store the information logically (this type of breaking down the whole problem can be linked back to the computational method). This would help with revision and making a study plan. This could also be implemented for students before GCSE to get a taste, as having each part broken down into tiny parts would make the whole subject a lot less daunting, although personally, I would have made the table collapsible so you didn't have to scroll past every topic to get to the bottom of the page.

	Home	Student Login	Teacher Login	Subscribe	Glossary	Legacy Site	Contact Us
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Types of computer



Theory



Quizzes



Lesson Tasks

SITE HOME

GCSE ICT

GCSE ICT Home Page

GCSE ICT Topics

GCSE ICT Quizzes

TYPES OF COMPUTER


Types of Computer Home

Theory


Tasks

Quizzes

When you pick a topic, you are met with these three options; theory, quizzes and lesson tasks. Once again your options are clearly shown, each one accompanied with a small image.



Google Custom Search



	Home	Student Login	Teacher Login	Subscribe	Glossary	Legacy Site	Contact Us
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2. Supercomputers

Supercomputers are the fastest and most expensive computers in the world.

They can cost over a hundred million pounds to build and very few organisations can afford to purchase one.

They are mainly used by governments such as the military, security services and the weather office and also large universities for scientific research, modeling etc

Large commercial organisations and also use them. For example pharmaceutical companies carry out drug research and modeling.


Whilst supercomputers are working, they generate so much heat that they need to be housed in specifically designed rooms with environmental controls and air conditioning systems. It is vital that the atmosphere is kept free of dust particles and special filters are used to keep the air clean.

There may be many miles of cables which connect the computer to various peripherals. In order to hide the cables, false floors and ceilings are often needed.

Supercomputers usually need their own back up electricity generator to ensure that they can continue to work even when there is a power failure.

Challenge see if you can find out one extra fact on this topic that we haven't already told you

Click on this link: [Supercomputer](#)



courtesy Argonne National Laboratory

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Going with the first option, theory. When clicking on this option you are met with pages of information, spilt up into 'slides'. Each slide covers an aspect of the topic you are covering, and can be found by using the sidebar. Some of these slides are very text heavy- this is something I wish to avoid, this is not a fun way of learning, it is also not very interactive either. There is nothing useful I can take from this example

Next, we will look at the quizzes option:

The screenshot shows the Teach-ICT website interface. At the top, there is a navigation bar with links: Home, Student Login, Teacher Login, Subscribe, Glossary, Legacy Site, and Contact Us. A sidebar on the left contains a menu with categories like SITE HOME, GCSE ICT, and TYPES OF COMPUTER. The main content area is titled 'Types of computer: Quizzes' and displays a list of ten interactive quizzes, each with a small icon and a 'Click Here' button.

Quiz Title	Click Here
Hangman	Click Here
Fling the teacher	Click Here
On target?	Click Here
Penalty shootout	Click Here
Walk the plank	Click Here
Teacher invaders	Click Here
Grade or no grade	Click Here
Half-a-minute	Click Here
Hoop shot	Click Here
En Garde	Click Here
Matchup	Click Here

This list consists of many interactive learning resources. These resources embody exactly what I was complaining about; I feel they cannot get the balance between game and education right, I will explain this in two examples:

The screenshot shows a quiz question from the Teach-ICT website. The question is: 'Which of the following contains a touch screen which is operated by your finger or a stylus?'. There are four options: A. Tablet computer, B. Netbook, C. Personal computer, and D. Laptop. Each option is accompanied by a small icon of the device. The background of the quiz interface shows a person in a virtual environment.

2 OF 10 Which of the following contains a touch screen which is operated by your finger or a stylus?

by Teach-ICT.com

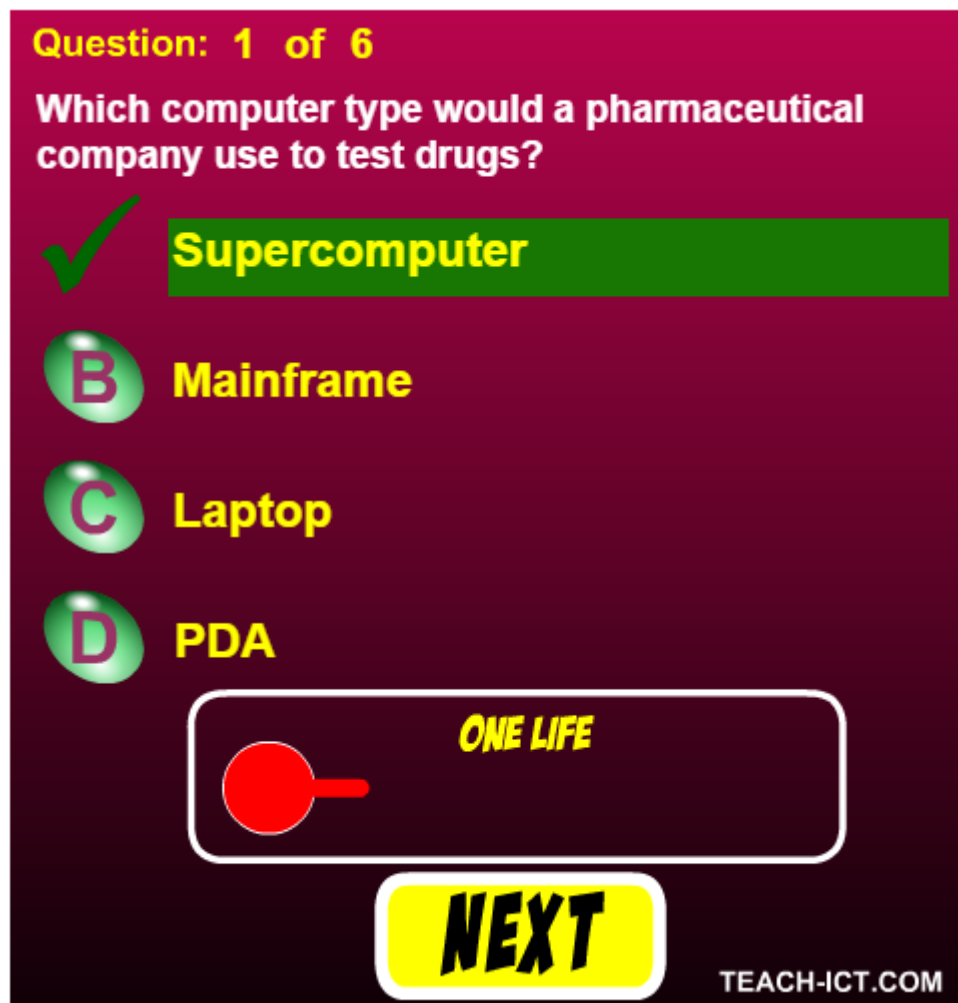
- A. Tablet computer
- B. Netbook
- C. Personal computer
- D. Laptop

The first example is the quiz 'Penalty shootout', this resource consists of two parts. The first part is multiple choice questions (pictured above)- answering correctly will give the user a chance to shoot a penalty, moving on to a second stage of the game:

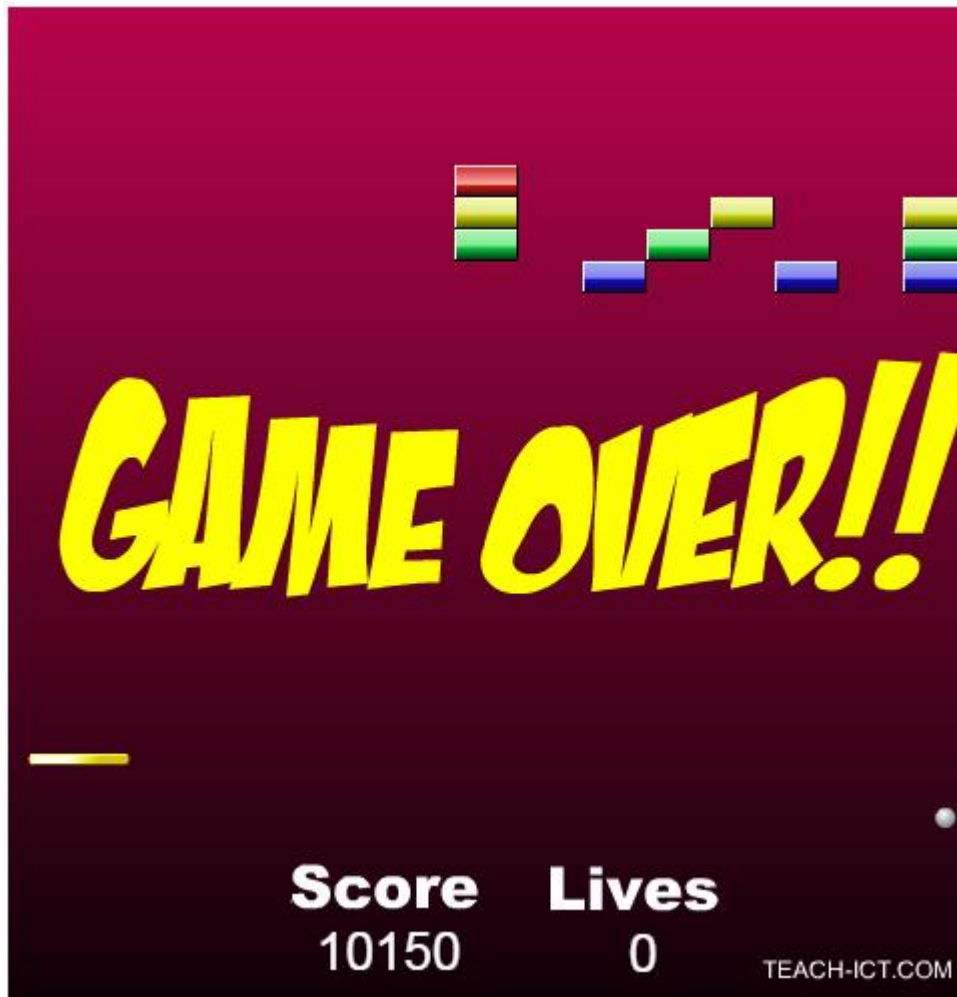


This next part has you click to shoot, using the rapidly shifting green area to show you the direction of your kick. This has very little user interaction, but as the user is controlling a situation and there is a very clear win objective, I would state that while boring, this is a game. I would argue that the problem behind this resource is that it is too much quiz with a husk of a game added at the end.

On the other hand, we have another resource- 'Breakout':



The resource starts off as a quiz, each question answered correctly give you a life. This is a very basic quiz, with a constant set up, meaning that if you get all the answers wrong, just refresh the page and input the correct choices in the order they showed you.



When all the questions are answered, you will be able to play a game of brick breaker. While I'm not sure if this is a full game of brick breaker (as the mechanics on the ball refreshing are not user friendly*) The duration of the game itself far surpasses the time you would spend on the quiz. This time I would argue that this resource is more game than educational, this is further proven by the inability of go back to the quiz after a game over- the creator knows that doing the quiz a second time is useless.

*Edit: After many attempts I did manage to clear a level, it just resets but keeps your score.

Finally, the last option on a subject is the lesson tasks:

Teach-ICT

Google™ Custom Search

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Home Student Login Teacher Login Subscribe Glossary Legacy Site Contact Us

SITE HOME

GCSE ICT

GCSE ICT Home Page

GCSE ICT Topics

GCSE ICT Quizzes

TYPES OF COMPUTER

Types of Computer Home






Theory

Tasks

Quizzes

Types of computer: tasks

Starters / Plenaries

10 Questions A volunteer (either a student or class teacher) is given a slip of paper so they know 'what they are'. The rest of the class can ask up to a maximum of 10 questions to guess what they are. The volunteer can only answer 'yes' or 'no'. (subscription only)	 task  ppt
30 Seconds Students are shown a number of terms for exactly 30 seconds. They need to memorise as many as possible. After 30 seconds, the terms are hidden and they need to write down as many terms as they can remember along with at least one fact about that term. (subscription only)	 ppt
3-2-1 Display this on the whiteboard as students are walking through the door. They can work individually or in pairs to come up with the answers. Good for differentiation as all students should be able to get at least one of the six points. (subscription only)	 ppt
Consider All Reasons Students are given an open-ended statement related to the topic. In pairs, they...	

This list consists of tasks that are intended for a teacher to use as a starter or plenary. Upon further scrolling, there is also further tasks for the teacher to set as classwork or homework. Firstly, as I am not a teacher with a paid subscription to this site, I cannot access any of these tasks to pass judgement. Secondly, my target audience is GCSE students, therefore anything to do with the teacher themselves is of no concern to me. Finally, this is actual school work- the thing I am trying to avoid in my solution. These all come together to show that this section is of no interest to me.

Taking what I can from Teach ICT (I was never expecting a lot), firstly, I see that having a clear structure is important to avoid overwhelming students. The quiz section of Teach ICT has also provided evidence to my point that it is almost impossible to have a good balance between education and entertainment- therefore as one person on a deadline, I will not try to balance the two- giving up education for an enjoyable promotional solution to the problem.