Computer Science

WHAT IS COMPUTER SCIENCE?

Computer Science is learning about "**how**" computers work, and "**why**" they work that way. Computers are complexed devices and are used in a wide range of ways. Throughout the course, you'll be learning a range of computing topics to help you understand how current technologies work.

You'll also be learning computer programming. This is a practical skill where you will be learning a computer language. This will allow you to create and code your own programs.

HOW ARE YOU ASSESSED?

There are two units. Unit 1 Computing theory is a written exam worth 50%. Unit 2 Programming skills is a practical exam worth 50%. The course is 100% exam based.

WHAT WILL YOU BE LEARNING?

Below are some examples of some of the topics that will be covered over the course:

- How does the internet work? How are computers able to connect to other computers across the world and send information to them?
- How do computers understand what we want them to do? How do computers know how to display images, sound and text?
- How does all the hardware and software work in the computers?
- What are some of the issues with technology?

WHAT WILL YOU BE DOING?

There are two lessons a week. You'll start the year by having a crash course in computer programming. You'll spend a full half term learning programming skills. Lessons will then be split into two. One lesson will be a theory lesson and the other will be programming lessons.

IS IT RIGHT FOR YOU?

Do you like to be challenged? Computer Science is an extremely challenging subject as you'll be learning brand new skills and have to think in a brand-new way. To be successful in Computer Science you should be currently working at a level 4 in maths. This is due to computer programming involving a lot of mathematical thinking. To be a successful programmer you'll need to have a lot of patience and enjoy solving problems. When coding your programs, they will not always initially work. You'll be expected to fix the programs yourselves with minimal help from your teacher. This will help you become a strong confident programmer. You'll be expected to be self-reliant and use the available resources to help you.