

## IT & Computing @ KS3 Centre

### KS3

**At KS3 pupils at our KS3 Centre have one hour of Computer Science per week. During these lessons pupils will study the OCR Entry Level Computing qualification.**

#### Autumn:

During this term pupils will be introduced to the BBC Micro:Bit and learn to program this incredibly powerful device. We also investigate physical computing where we connect our Micro:Bit to the real world using an electronic inventor's kit. Through this we learn programming techniques such as algorithms, computational thinking and coding. Later in the term we will develop 3D games using Microsoft's Kodu Gaming system. By connecting the Micro:Bit to these games we will create multiplayer games.

#### Spring :

During this term we will use Minecraft to program robots in the virtual Minecraft world and use the skills we have learnt in this to develop programs in Python and Scratch. This covers the Programming project for the Entry Level Computing course.

In the second part of the term we will investigate the hardware inside a computer with practical, hands on experience. We will learn about input, output and processing devices as well as looking at binary and logics systems.

#### Summer:

In the Summer term our focus shifts to online safety. We will develop websites using Serif WebPlus or Dreamweaver on the theme of e-safety. Pupils will learn about staying safe online in a practical way as they earn their Online Safety Award using our own blog pages.

The final part of the year pupils choose a research topic in computing and investigate the impact it has had on society.

Throughout the year we will also be using our brand new 3D printer to plan, design and create ideas for all of our curriculum areas.

How you can support your child:

- Access the KS3 Centre CS Blog <http://compsciks3.edublogs.org/> to see what you child has been working on. Discuss with them the learning they have done in lesson.
- Look for interesting computer science articles on websites such as Geek.com, BBC technology pages and the BBC Micro:Bit website <https://www.microbit.co.uk/>
- Discuss your child's use of Social media such as Facebook, Snapchat and Instagram.