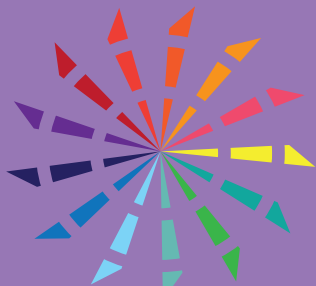


COURSES FOR BUDDING SCIENTISTS & PROGRAMMERS



**sharp
spark**
igniting minds

2017

AUGUST HOLIDAY PROGRAM





welcome

TO SHARP SPARKS AUGUST PROGRAM 2017!

This year we are running an exciting four weeks of activities (10th July - 4th August).

The sessions will be held at:

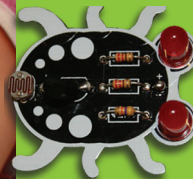
**St Teresa's School
Beech Ave
Effingham**

This year we have options in both the morning and afternoon sessions, as well as the ability to stay for the whole day. All of our courses have a core component based on STEM (Science, Technology, Engineering and Mathematics). Our aim is to get students to be enthusiastic and passionate about STEM subjects. We run the course over the 5 days, but we do welcome students who want to attend selected sessions.

Please feel free to contact Vikki on
(07966867775 or v.low@sharp-spark.com)
with any questions or comments you might
have regarding any of our classes.

We look forward to welcoming your children
and inspiring them to achieve greatness in
whatever they love to do.

**Vikki Low
Founder of Sharp Spark**



timetable

10th July – 15th July

MORNING	Code Breakers	1	9am-12pm
	Space Training		9am-12pm
AFTERNOON	Introduction to MIT Scratch		1pm-3pm
	Lego Comics		1pm-4pm

17th July – 22nd July

MORNING	App Adventure	2	9am-12pm
	Grossology		9am-12pm
AFTERNOON	Games Lab		1pm-4pm
	Python		1pm-3pm
	Science of Cosmetics!		1pm-3pm

24th July – 29th July STEM CAMP 9-3pm

Including activities with

- Lego Robotics
- Programming and Gaming
- Logic and Electronics
- Video animation iStop Motion (ipads)
- Fun with Minecraft

3

31st – 4th August

MORNING	Lego Video Games	4	9am-12pm
	Crazy Science		9am-11am
	Minecraft modders		9am-12pm
AFTERNOON	App Attack		1pm-4pm
	Minecraft Animators		1pm-4pm
	Robotics Lego Mindstorms EV3		1pm-3pm

STEM CAMP – New!

This year we are running our first STEM Camp! The camp will provide students a creative environment in which they will develop their problem-solving and computer literacy skills to enhance their STEM knowledge in co-operation with their peers. Students will use a range of technologies and software to create solutions to real world problems.

Recommended age: 6 – 14 Years

Date: 24th July – 29th July 9pm -3pm

Course Fee: £270 a week (or @60 per day)



Course Outlines

Crazy Science

Kick off a chain reaction of fun filled experiments that ooze, smoke, pop and stink with Hands-on classes. This course is perfect for those who are just starting to be interested in science. The course will explore a large number of scientific topics to introduce an array of famous scientists and their achievements. Students will get dirty so please dress them accordingly.

Recommend age: 6 – 10 Years

Date: 31st July – 4th August 9am -11am

Course Fee: £100

Grossology

Learn about all those things which are slimy, mushy, sooty, stinky and much more. This course is a look into the health of the body with a stinky twist. We look at the science of some of the most disgusting parts of the body from burps, scabs, ear wax and many more.

We will carry out many scientific experiments to explore the human body and their systems.

Recommended Age: 6 – 10 years old

Date: 17th July -22th July 9am - Midday

Cost: £120

Introduction to MIT Scratch

Design and build your own computer game with MIT Scratch. You will learn how to create and control your characters, add objects and define outcomes of the game. We will create a multi-level game that gets increasingly difficult as you progress.

We will also increase your typing skills; students will learn vital skills to improve their use of keyboards. The use of lessons, games and tests will promote excellent results.

Recommended age: 6 – 10 Years

Date: 10th July – 15th July 1pm -3pm

Course Fee: £80

Python Coding

Beginning to code. A great starting point for all those who want to test the waters with coding. Challenges are set and after a few commands students are able to write programs such as hangman and "What's the number". This may require some preparation.

Recommended age: 8 -14 years

Date: 17th July – 22nd July 1pm -3pm

Cost: £80

Robotics with Lego Mindstorms EV3

Unleash your creative side and learn technical and problem-solving skills while having lots of fun. Robots are initially easy to build. We start with the tribot and team challenges are set; for example - races, obstacles and robot wars! No previous programming experience is required.

Recommended age: 8 - 14 Years

Date: 31st July – 4th August 1pm -3pm

Course Fee: £100

Science of Cosmetics!

Cosmetics were first worn by the Egyptians with the use of charcoal and dyes from plants. A historic view of cosmetics will be taken and we will make products including lip balm, eye shadow and mascara. Students will need to select three colours before the course begins.

Recommended Age: 6 – 14 years old

Date: 17th July – 22nd July 1pm-3pm

Course Fee: £100

Space Training

At Space training you will experience many different lessons and activities. You will design and create rockets, learn about 'how to be an astronaut' and much more about the science of space.

Recommended Age: 6 – 10 years old

Date: 10th July -15th July 9am - Midday

Course Fee: £120



BLACK ROCKET COURSES

All Black Rocket courses are £140 per week and recommended for 7 – 14 year olds. Students will work in pairs or teams for most of the programs.

Returning students can create more advanced projects that build on previous years for all courses. Student-created apps and projects will be accessible on a secure Black Rocket site and apps can be played on any mobile device or computer. No prior experience will be needed for any course.



App Adventures: The Next Level!

Continue your quest to make the next viral app! Whether you want to move past the basic techniques learned in App Attack or want to jump right in, we are ready for you! Students will choose from a selection of different web-based (HTML5) mobile apps and explore more in-depth programming concepts. Publishing to App Stores not included.

Date: 17th July – 22nd July 9am - Midday

App Attack!

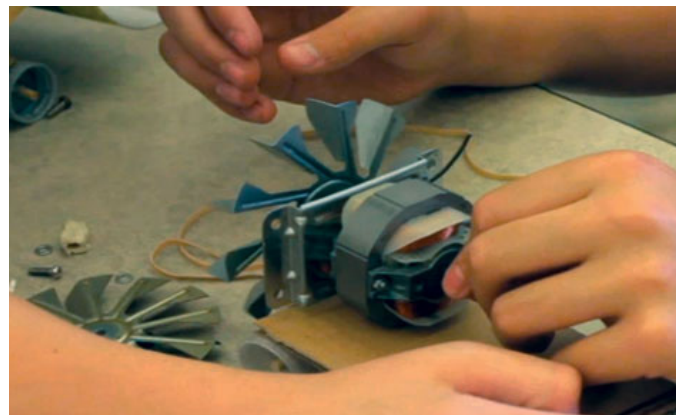
Take the first steps into the world of mobile app design and customize your own game app! Using a specialized app & game development tool, students will explore the world of web-based (HTML5) mobile apps. In addition to learning the basics of mobile app design and game development, you will also see first hand how the world of App publishing functions. Publishing to App Stores not included.

Date: 31st July – 4th August 1pm-4pm

Code Breakers

Calling all future coders, programmers, & designers! Learn the basics of coding languages like HTML, JavaScript, and CSS through a series of web projects and design challenges each day and be on your way to becoming the next tech star! Whether you want to be the next Mark Zuckerberg or the high school student who just made \$1 million dollars for programming in his bedroom, this course has the essentials you need to begin your journey.

Date: 10th July -15th July 9am - Midday



Game Labs : Collaborate- Create- Compete in the Ultimate Video Game Experience

For serious gamers only! Beyond 2D and 3D, now it's time to take it to another level by competing with the world! Students will develop games with a partner using a unique game engine. Students will learn advanced level editing, simple 3D modelling, intermediate event scripting and the impact of game play on user experience. System Requirements for home experience: 2GB of RAM, and 2.0GHZ processor.

Date: 17th July – 22nd July 1.00 -4pm

LEGO® Video Games

Combine your two favourite activities: LEGOs and Video Games! Students will create their own LEGO characters and adventures in an interactive 2D Video Game. Everyone is welcome in this one of a kind class. At the end of the program, every student will have a finished LEGO Video Game that can be shared with friends and family through a password protected Black Rocket website. Games are only compatible on PC computers; Mac versions can be created after the program for a £15.00 conversion fee.

Date: 31st July – 4th August 9.00 - Midday

Lego® Comics: Design Your Own Adventure!

In this LEGO adventure YOU are the star! Pick your favourite LEGO genre or create an alternate universe to create a digital illustrated story or graphic novel. Whether you want to fight alongside Superheroes, create a Minecraft story, hang with the Nexo Knights, or go into space with Rey and Finn, the only requirement is that you put yourself in the story! All students will end the class with a digital comic book that can be shared with friends and family on a password protected website!

Date: 10th July -15th July 1am – 4pm



Minecraft® Animators

Bring your favourite Minecraft characters to life in an animated short film! Learn how studios like Pixar and Disney make movies like Inside Out and Frozen by using techniques like keyframing, tweening, texturing, and animating rigged 3D models! You do not need to own a Minecraft account to use the software in this class. Mac users can play their project at home, but will not be able to edit the project without a PC.

Date: 31st July – 4th August 1 - 4

Minecraft® Modders

Use your favourite game to learn the basics of modding and foundations of programming. Learn scripting and logic statements as you create your first mods! Introductory coding will also be taught through a simulated environment inspired by Minecraft. To access their project at home students must own a PC/MAC version of Minecraft. Tablet, phone, and game console versions of Minecraft are not compatible.

Date: 31st July – 4th August 9am - Midday





REGISTRATION

Sharp Spark classes have a limited number of enrolment spaces for each class and registrations will be processed in order of receipt.

HOW TO REGISTER:

1. By email v.low@sharp-spark.com
2. The website www.sharp-spark.com
3. Phone Vikki Low on 07966867775

You will receive a response within 36 hours.

Course fees include all instructions and materials.

Payment must accompany a completed registration form to guarantee the space.

Payment may be made by cheque, bank transfer or in cash.

CANCELLATION POLICY

All tuition fees (less a £10 processing fee) will be refunded if notice of withdrawal is provided no less than five working days before the start of a session.

There is a minimum attendance of two students for each session - advance notification will be given (along with a full refund).



Victoria Low

MA, DipTchng, BSc (Hons)

07966 867 775
v.low@sharp-spark.com

www.sharp-spark.com