



**iMedia**  
**Lite Level 2 iProgram –**  
**iFunction**

**KS1 PPA Cover Planning**

- **Work Schemes**
- **Learning Objectives**
- **Key Skills**

## iFunction

Unit Length: 5 – 7 hours

*Lite*

### Level 2

**Course overview:** iFunction looks at creating programs to solve real-world problems. Building upon their knowledge of 'Blockly' from Level 1 they will apply it to create games, control solutions and other problems mimicking real application of programming. We will also introduce written programming languages and learn basic syntax.

**Learning Outcome for the course:** To be able to understand how 'If, and, or, else' statements are used within programming. To be able to design a program on a storyboard and have the skills to create their program in Hopscotch.

**Keywords:** Conditionals; Repetition; Blockly; Angle; Storyboard.

### *Apps Used Include: Tynker, Scratch Jnr, Hopscotch*

**Learning Session 1:** Refresh from Level 1 using Tynker – Space Cadet and Kodable. Students will recap over Level 1 focusing on the basics of computer science and refresh their understanding of algorithms and programming.

**Learning Session 2:** Making Shapes in Hopscotch – Students will recap on making shapes within 'Hopscotch' focusing on loops, making coding shorter and the concept of 'making life easier' for the programmer.

**Learning Session 3:** Recreating Pictures in Hopscotch – Continuing from the previous learning session students will continue to develop their understanding of algorithms and loops by implementing them in creative contexts to draw pictures within 'Hopscotch'.

**Learning Session 4:** Introduction to Scratch Jnr. and creating storyboards – Students will learn more about computational thinking, developing their ability to create algorithms that can make choices: 'If' this 'then' that. Students will use the app 'Scratch Jnr.' to develop understanding.

**Learning Session 5:** Storytelling with Scratch Jnr. – Students will be tasked in creating their own story using 'Scratch Jnr.' This will require students to be creative in their programming and problem solving to learn how to make their characters interact and move around. Students will demonstrate their understanding of all the key skills discovered within Level 1 and Level 2 by applying this knowledge to their stories.

**Learning Session 6:** Storytelling with Scratch Jnr. – Students will continue with their stories before showcasing them to the class.

**Learning Session 7:** This session will run either as part of a longer half term or a contingency for pupils or classes who have exceeded the lesson plans for the half term. During this lesson pupils will learn about variable and practise using them in code.

**Contingency:** Additional lesson plans are in place for less able students and higher ability students.

## iMedia

*In this document we will provide you with key information relating to our PPA Cover*

### Secure Website

We have created a login for your school on our website where you can access key information. We have found this is a quick and easy way to provide you with all of the information you require. Using this login you can access all of our risk assessments, insurance documents and relevant policies, as well as a copy of each staff member's DBS with a photo of them for identification purposes. The website address to access this information is [www.juniorjam.co.uk/protected](http://www.juniorjam.co.uk/protected); please use the username and password details that are on your order confirmation.

### OFSTED, Planning and Overview Documents

Shortly after booking the main contact will receive a planning document email; by clicking the links in this email you can view the planning, unit overviews and National Curriculum mapping for each level we are delivering. These documents are really important and vital, should OFSTED decide to Deep Dive into one of the subjects we are providing. Please forward this email to the relevant subject coordinator for their records. If OFSTED schedule a visit on a day we are in, please contact the office so we can brief our staff members.

### Assessment

From September 2020 our staff will produce a Course Evaluation for each class they teach. This will directly link to the National Curriculum and will detail how the class has achieved key curriculum objectives. This will be done at the end of each half term and will be accessible via the secure section of our website. Junior Jam also offer Reporting & Assessing, where each child receives individual grades at the end of each half term - this is an optional extra and must be requested with your sales agent prior to the order starting. A written report for your students is outside the scope of your PPA Cover contact, however if you give our staff member time and resources within their PPA teaching time, they will endeavour to provide this for you – this time cannot be their lunch or during their break and should be requested via your sales agent. If no time is available within your PPA Cover, additional time can be requested from your Junior Jam sales agent.

### Space Requirements

Our iMedia lessons simply require the use of a classroom with an interactive whiteboard. Depending on the activity type we may be required to move desks around to create a more effective space; the staff members will always return the classroom to the state it was found in. The iDesign and iFilm workshops may also utilise outdoor spaces to add to the pupils's learning; this will always be done with school permission prior to the session beginning.

### PPA Questionnaire

Before the first PPA cover session our leader will arrive 30 minutes early to fill in a quick question sheet relating to your school and the classes they will be teaching. If you could arrange for either yourself, a deputy or a class teacher to sit down with our staff member to run through this questionnaire it would be of great benefit to the lessons they run.

### iMedia Uploads

Several of our iMedia subjects have work from the students which we can upload to our secure website. Your order confirmation contains the login details, simply click on the 'Media Uploads' tab to see the work that has been completed at the end of each half term. There are some subjects where uploads are not produced due to GDPR and safeguarding; for more information on this please view our Digital Procedure Policy within the secure section of our website.

## Lite Level 2 iFunction: Curriculum links

The learning pathways for each iMedia subject are in line with the Curriculum 2014. Below outlines all the curriculum points hit during this unit. iMedia levels are topic-based so students will be learning beyond these attainment targets and in real-life contexts.

### Curriculum 2014

#### Computing

- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.
- Create and debug simple programs.
- Use logical reasoning to predict the behaviour of simple programs.
- Use technology purposefully to create, organise, store, manipulate and retrieve digital content.
- Recognise common uses of information technology beyond school.
- Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

# Lite Level 2 iFunction: Learning Objectives and Lesson Outcomes

## Learning Session 1

### Learning Objective:

Today we will learn about Conditionals and Repetition in coding.

### Learning Outcome:

#### By the end of the lesson;

##### All pupils will

- be able to use repetition and conditionals within the app Kodable.

##### Most pupils will

- be able to give an example of a conditional.

##### Some pupils will

- be able to explain what a conditional is using 'If, and, or else' statements.

## Learning Session 2

### Learning Objective:

Today we will learn how to code using the programming language Blockly.

### Learning Outcome:

#### By the end of the lesson;

##### All pupils will

- be able to make basic shapes on Hopscotch.

##### Most pupils will

- be able to create different shapes, including triangles and pentagons.

##### Some pupils will

- be able to create the shapes using repeats every time to make the code shorter.

## Learning Session 3

### Learning Objective:

Today we will learn how to code different characters doing different things in one program.

### Learning Outcome:

#### By the end of the lesson;

##### All pupils will

- be able to make more than one character follow simple code given to them by the instructor.

##### Most pupils will

- be able to make their own code for the two characters to achieve goals set by the instructor.

##### Some pupils will

- be able to program their characters to interact.

## Learning Session 4

### Learning Objective:

Today we will learn how to combine shapes in Hopscotch to make a scene.

### Learning Outcome:

#### By the end of the lesson;

##### All pupils will

- be able to combine shapes within Hopscotch to create a picture.

##### Most pupils will

- be able to create a scene and use repeat functions within their code to make the code shorter.

##### Some pupils will

- be able to code a more complete picture/scene with more interacting characters.

## Learning Session 5

### Learning Objective:

Today we will learn how functions make our code shorter.

### Learning Outcome:

#### By the end of the lesson;

##### All pupils will

- know where to locate the functions on Hopscotch.
- know how to use pre-existing functions.

##### Most pupils will

- be able to create their own functions.

##### Some pupils will

- be able to understand a function can be applied to multiple characters, changing one piece of code on their function changes the code for all characters.

## Learning Session 6

### Learning Objective:

Today we will learn how to use storyboarding when creating a program.

### Learning Outcome:

#### By the end of the lesson;

##### All pupils will

- know that repeats can be used to make their algorithms shorter

##### Most pupils will

- be able to code using the Blockly form of repeats.

##### Some pupils will

- always look to make their code short by utilising repeats where ever possible.



## Learning Session 7

### Learning Objective:

Today we will learn how to expand our program by changing variables.

### Learning Outcome:

#### By the end of the lesson;

##### All pupils will

- be able to change 1 variable within their work.

##### Most pupils will

- be able to change multiple variables within their work.

##### Some pupils will

- be able to code in variable changes within their work.

**Pupils of a lower ability** will be encouraged to move onto Scratch, but only focus on one scene with one character.

**Pupils of a higher ability** will be encouraged to storyboard and program more than one storyline or scene. They will also be asked to use variables where possible.