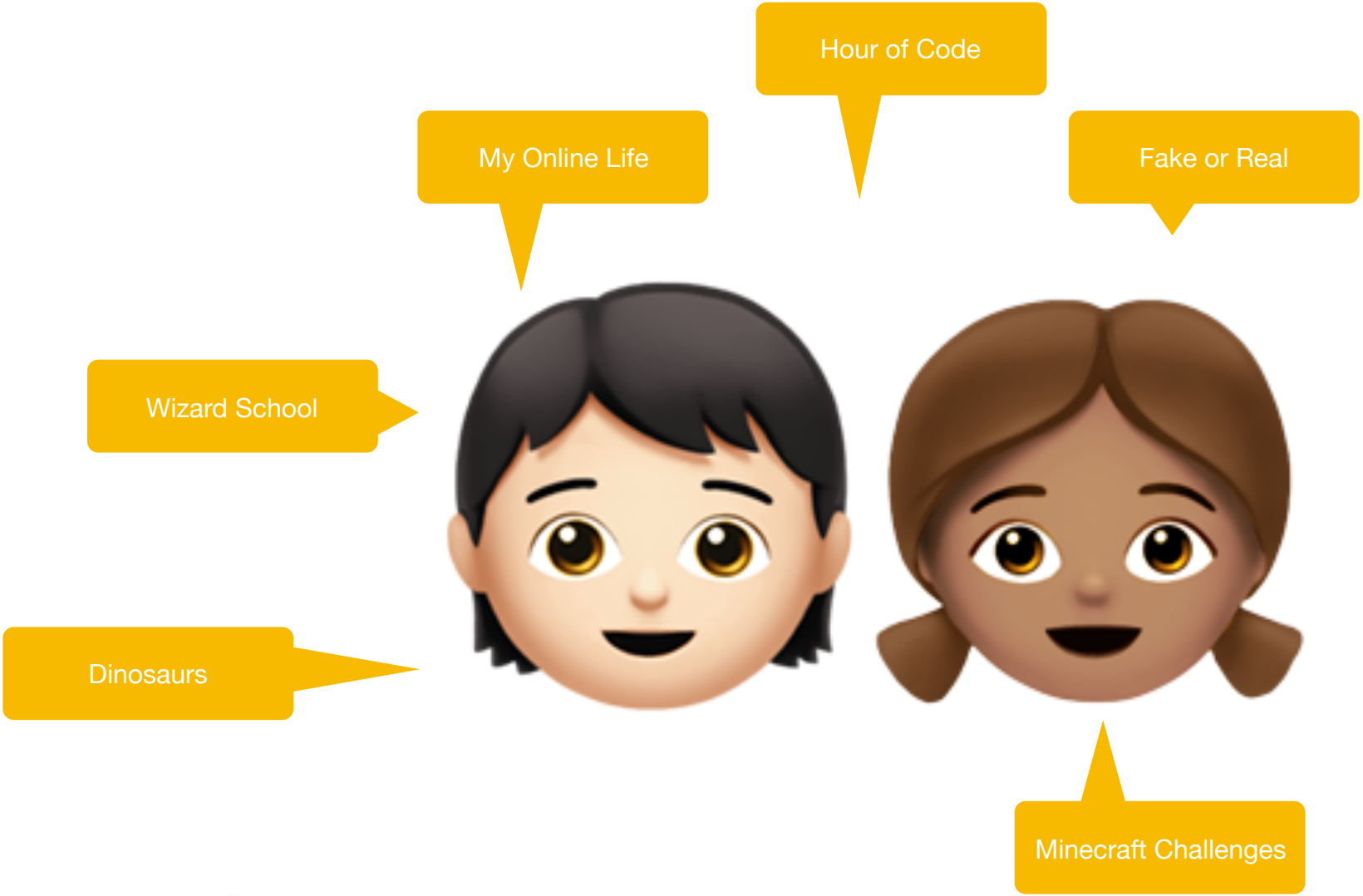
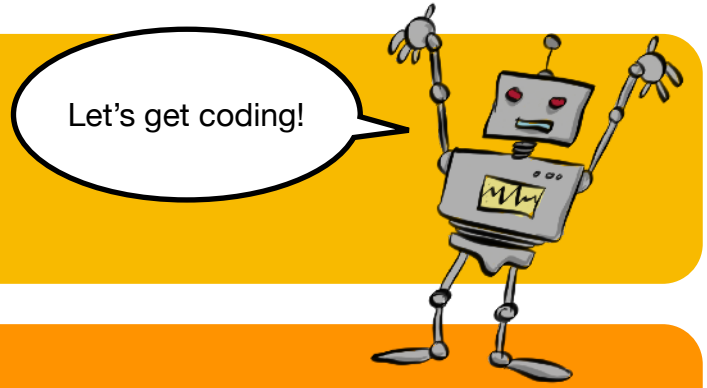


Year 4

Computing Activities: Hour of Code

Year 4: Hour of Code

Learn about coding and 3D Simulations, let's get started!



Overview: The class will sign up for Hour of Code and work through various challenges. The class can also choose to take part in global coding events.

What is coding?
Why is coding important?
What is visual coding
What is an algorithm?
What is a program?
What is a conditional statement?

Key Terms & Vocabulary Explained

Website	Conditional	Run
Program	Loop	Command
Block	Sequence	Sprite

Resources Required

iPad, Chrome Book or Android
Book Creator, YouTube, Google Docs
& Teacher's Guide

Teacher's Guide


Book Creator


Youtube Free


Google Docs Free

App replacement
What can I use if I don't have that?

Apps Required	iPad	Android Tablet	Chromebook	Surface/PC	Mac
Book Creator £4.99 (iPad) Free on Chrome but limited books	✅	✅ Accessed through Chrome Browser	✅ Accessed through Chrome Browser	✅ Accessed through Chrome Browser	✅ Accessed through Chrome Browser
Youtube Free	✅	✅	✅	✅	✅
Google Docs Free	✅	✅	✅	✅	✅

This activity is all online so no apps are required. However, we will ask the children to document their learning via a coding journal. We will use Book Creator but Word or Google Docs could be used instead.

How to download teaching resources for this activity

We have made every effort to ensure resources are as accessible as possible. Please choose the file type you require for your device.

The **Teacher's Handbook** contains all the content you will need to teach this activity.

Download PowerPoint

Download PDF Version

Hour of Code
Planning Overview

Lesson	Driving Question	Activity	Assessment
1	What is the Hour of Code?	1. Explain to the children that they will be using the Hour of Code website during these lessons to develop their coding skills? Introduce the Hour of Code: https://www.youtube.com/watch?v=FC5FbmsH4fw 2. Tell the children they are going to create their own coding journal in Book Creator. 3. Show children the Hour of Code website https://hourofcode.com/us/learn and demonstrate how to use it. 4. Ask the children to design their front cover for their Coding journal. 5. Ask the children to add a page to their journal and explain What is coding and Why should we learn how to code?	(IT) I can improve the quality and presentation of my work using editing and formatting techniques.
2	How can I give instructions to an on screen sprite?	1. Introduce this week's Hour of Code activity: https://hourofcode.com/star-wars . Ask the children to independently complete the Star Wars coding activity. 2. Ask the children to take screenshots as they progress. 3. Ask the children to add their screenshots to their Coding journal. 4. Ask the children what the different blocks mean shown on slide 21 in your Teacher's handbook. 5. Self assessment.	(CS) I can use conditional statements such as "If", "Then" & "When" to control devices / achieve specific outcomes.
3	Can you use computing vocabulary?	1. Introduce this week's Hour of Code activity: https://hourofcode.com/lightbot 2. Ask the children to independently solve the Lightbot puzzles. 3. Ask the children to take screenshots as they progress. 4. Ask the children to add their screenshots to their Coding journal. 5. Ask the children to explain how to play the Lightbot coding game using computing language (shown on slide 27 in your Teacher's handbook).	
4	How can I use code to animate?	1. Introduce this week's Hour of Code activity: https://hourofcode.com/googlelogo 2. Ask the children to independently code the Google logo. 3. Ask the children to add a new page to their Coding journal and write out their instructions explaining what their program is going to do. 4. Ask the children to take screenshots as they progress. 5. Ask the children to add their screenshots to their Coding journal. 6. Ask the children what the different blocks mean shown on slide 37 in your Teacher's handbook. 7. Ask the children to self assess their learning.	(CS) I can use conditional statements such as "If", "Then" & "When" to control devices / achieve specific outcomes.

Hour of Code
Planning Overview

Lesson	Driving Question	Activity	Assessment
5	How can I use code to animate?	1. Introduce this week's Hour of Code activity: https://hourofcode.com/flap 2. Ask the children to independently code their own Flappy Bird game. 3. Ask the children to take screenshots as they progress. 4. Ask the children to add their screenshots to their Coding journal. 5. Ask the children what the different blocks mean shown on slide 44 in your Teacher's handbook.	
6	How can I use code to animate?	1. Introduce this week's Hour of Code activity: https://hourofcode.com/como 2. Ask the children to independently solve the coding challenges in Code Monkey. 3. Ask the children to take screenshots as they progress. 4. Ask the children to add their screenshots to their Coding journal. Ask the children to explain what a command is.	

Teacher's notes: Lesson 1

What is the Hour of Code?

Assessment

(IT) I can improve the quality and presentation of my work using editing and formatting techniques.

Step 1: Explain to the children that they will be using the Hour of Code website during these lessons to develop their coding skills? Introduce the Hour of Code to your class by playing this video: https://www.youtube.com/watch?v=FC5FbmsH4fw

Step 2: Tell the children they are going to create their own coding journal in Book Creator to record their learning and coding journey.

Step 3: Show children the Hour of Code website https://hourofcode.com/us/learn and demonstrate how to use it. *Beforehand you will need to either pick and choose one-off coding activities that might interest your class or you can sign up for a class account. This gives you student accounts and allows you to assign activities and monitor progress.*

Step 4: Ask the children to design their front cover for their Coding journal.

Step 5: Ask the children to add a page to their journal and explain What is coding and Why should we learn how to code? The children may need to use the internet to research these questions.

Teacher's notes: Lesson 2

How can I give instructions to an on screen sprite?

Assessment

(CS) I can use conditional statements such as "If", "Then" & "When" to control devices / achieve specific outcomes.

Step 1: Introduce this week's Hour of Code activity: https://hourofcode.com/star-wars

Step 2: Ask the children to independently complete the Star Wars coding activity. There are lots of tutorial videos to help. The children can watch the video and then work their way through the activities.

Step 3: Ask the children to take screenshots as they progress through the activities.

Step 4: Ask the children to add their screenshots to their Coding journal.

Step 5: Ask the children what the different blocks mean shown on slide 21 in your Teacher's handbook. The children could add their answers to their Coding journal.

Step 6: Ask the children to self assess their learning.

Teacher's notes: Lesson 3

Can you use computing vocabulary?

Step 1: Introduce this week's Hour of Code activity: https://hourofcode.com/lightbot

Step 2: Ask the children to independently solve the Lightbot puzzles. There are tips at the beginning of each level to help.

Step 3: Ask the children to take screenshots as they progress through the activities.

Step 4: Ask the children to add their screenshots to their Coding journal.

Step 5: Ask the children to explain how to play the Lightbot coding game using computing language (shown on slide 27 in your Teacher's handbook). The children could add their answers to their Coding journal.

Teacher's notes: Lesson 4

How can I use code to animate?

Assessment

(CS) I can use conditional statements such as "If", "Then" & "When" to control devices / achieve specific outcomes.

Step 1: Introduce this week's Hour of Code activity: https://hourofcode.com/googlelogo

Step 2: Ask the children to independently code the Google logo. There are lots of tutorial videos to help.

Step 3: Ask the children to add a new page to their Coding journal and write out their instructions explaining what their program is going to do ((this is called an algorithm).

Step 4: Ask the children to take screenshots as they progress through the activities.

Step 5: Ask the children to add their screenshots to their Coding journal.

Step 6: Ask the children what the different blocks mean shown on slide 37 in your Teacher's handbook. The children could add their answers to their Coding journal.

Step 7: Ask the children to self assess their learning.

Teacher's notes: Lesson 5

How can I use code to animate?

Step 1: Introduce this week's Hour of Code activity: https://hourofcode.com/flap

Step 2: Ask the children to independently code their own Flappy Bird game. There are lots of tutorial videos to help.

Step 3: Ask the children to take screenshots as they progress through the activities.

Step 4: Ask the children to add their screenshots to their Coding journal.

Step 5: Ask the children what the different blocks mean shown on slide 44 in your Teacher's handbook. The children could add their answers to their Coding journal.

Teacher's notes: Lesson 6

How can I use code to animate?

Step 1: Introduce this week's Hour of Code activity: https://hourofcode.com/como

Step 2: Ask the children to independently solve the coding challenges in Code Monkey. This may be their first taste of text-based coding.

Step 3: Ask the children to take screenshots as they progress through the activities.

Step 4: Ask the children to add their screenshots to their Coding journal. Ask the children to explain what a command is.