



Computing Long Term Map

• Computing Knowledge
Progression Small Steps to
Endpoints

Road Map

- Computing Vocabulary
- Computing Assessment

Unit lesson plans and resources link:

Robots My Online Life Animal Safari

## Year Reception. Medium Term Planning

#### **Digital Literacy Computer Science** Underlines the knowledge and skills relating to online Underlines the knowledge and skills relating to safety and technology in society. computational thinking, coding, algorithms and networks. Information Technology **Byte Size & Fun** underlines the knowledge and skills relating to digital ensure the children have the core basic skills to use communication, creating multimedia content and data multiple devices, this is designed to promote representation/handling. independence and to have fun! I can do the basics with technology. **Year Reception. Mandatory Skills:** I can go online. I can confidently use a camera. **Autumn** Robots (Computer Science) This unit gives children their first taste **Key Vocabulary:** Ipad of computing (computational thinking Computer and coding). The children will learn new Device App skills and practice giving instructions to Technology Digital complete tasks. Includes a range of Device Sequence continuous provision activities. Screen Seesaw Instructions Order Algorithm Programmable toy Control Beebot Robot Predict/guess Alexa Photograph Microphone Interactive

## **Learning Sequence:**

QR code

Lesson1: Objectives: • To understand where can we find robots in the world around us. • To create a painting or digital artwork of a robot, including printing and cutting out. • To save/share work.

Outcomes: (IT) I can select and use technology for particular purposes.

Lesson 2: Objectives: • Explore how can technology (microphone) be used to record audio and share ideas • Learn to take photographs • Use a device to scan a QR code

Outcomes: (MS) I can do the basics with technology.

Lesson 3: Objectives: • Why sequencing is important • Learn to move objects on a screen • Sequence instructions to solve a problem Outcomes: (CS) I can explain sequencing.

Lesson 4: Objectives: • What is an 'algorithm'? • Sequenced instructions (understand that this is called an algorithm) • Create a simple visual algorithm.

Outcomes: (CS) I can explain an algorithm.

Lesson 5: Objectives: • Use directional language as part of an algorithm • Create a simple visual algorithm to move an object. • Play with electronic robot toys/apps

Outcomes: (CS) I can give instructions to a programable toy.

## **Spring**

### **Key Vocabulary:**

Online

Digital

**Emotions** 

App

Internet

Video

Tablet/ipad

Online game

Device

Risks

Private

Google

Online bullying

Keyboard

Trust

Password

Camera

Share

Information

Personal information

Copyright

Content

Technology

Search engine

# **My Online Life**

(Digital Literacy)

This activity takes place over the course of the term. It covers all the DFE statutory requirements for digital literacy and online safety.

School Safer Internet Day learning.

## Learning Sequence:

Lesson1: (DL) To understand the meaning of 'online'. (DL) To discuss emotions. (DL) To understand whom we can ask for help.

Lesson 2: (DL) What does 'communication' mean? (DL) How do we talk and share online? (DL) Who can we talk to or share with?

Lesson 3: (DL) To identify ways that I can put information on the internet.

Lesson 4: (DL) To describe ways that some people can be unkind online. (DL) To offer examples of how this can make others feel.

Lesson 5: (DL) To talk about how to use the internet to find information online. (DL) To identify devices I could use to access information on the internet.

Lesson 6: (DL) To identify rules that help keep us safe and healthy in and beyond the home when using technology. (DL) To give some simple examples of these rules.

Lesson 7: (DL) To identify some simple examples of my personal information (e.g. name, address, birthday, age, location). (DL) To describe who would be trustworthy to share this information with, I can explain why they are trusted.

Lesson 8: (DL) To understand that work I create belongs to me. (DL) To name my work so that others know it belongs to me.

#### Summer

Animai Satari

(Information Technology)

## **Key Vocabulary:**

Ipad

Computer

Digital

Information

Keyboard

Delete

Device

QR code

Screen

Data

Photograph

Space bar

AR

App

Interactive

Camera

Technology

Seesaw

Microphone

Text

Ebook

Button

This unit helps children use iPads/ tablets independently to collect and record information. The children will learn about opening apps, scanning QR codes, taking photos and recording information in a tally chart. Includes a range of continuous provision activities.

## **Learning Sequence:**

Lesson1: Objectives: • To use digital devices safely in the classroom. • To work with a partner and take turns using a device. • To open apps and scan QR codes. • To sort data.

Outcomes: (IT) I can select and use technology for particular purposes.

Lesson 2: Objectives: • To use digital devices safely in the classroom. • To work with a partner and take turns using a device. • To open apps and scan QR codes. • To record data.

Outcomes: (IT) I can do the basics with technology.

Lesson 3: Objectives: • To independently find and open an application for a particular purpose. E.g. drawing a picture. Outcomes: (IT) I can use a camera.