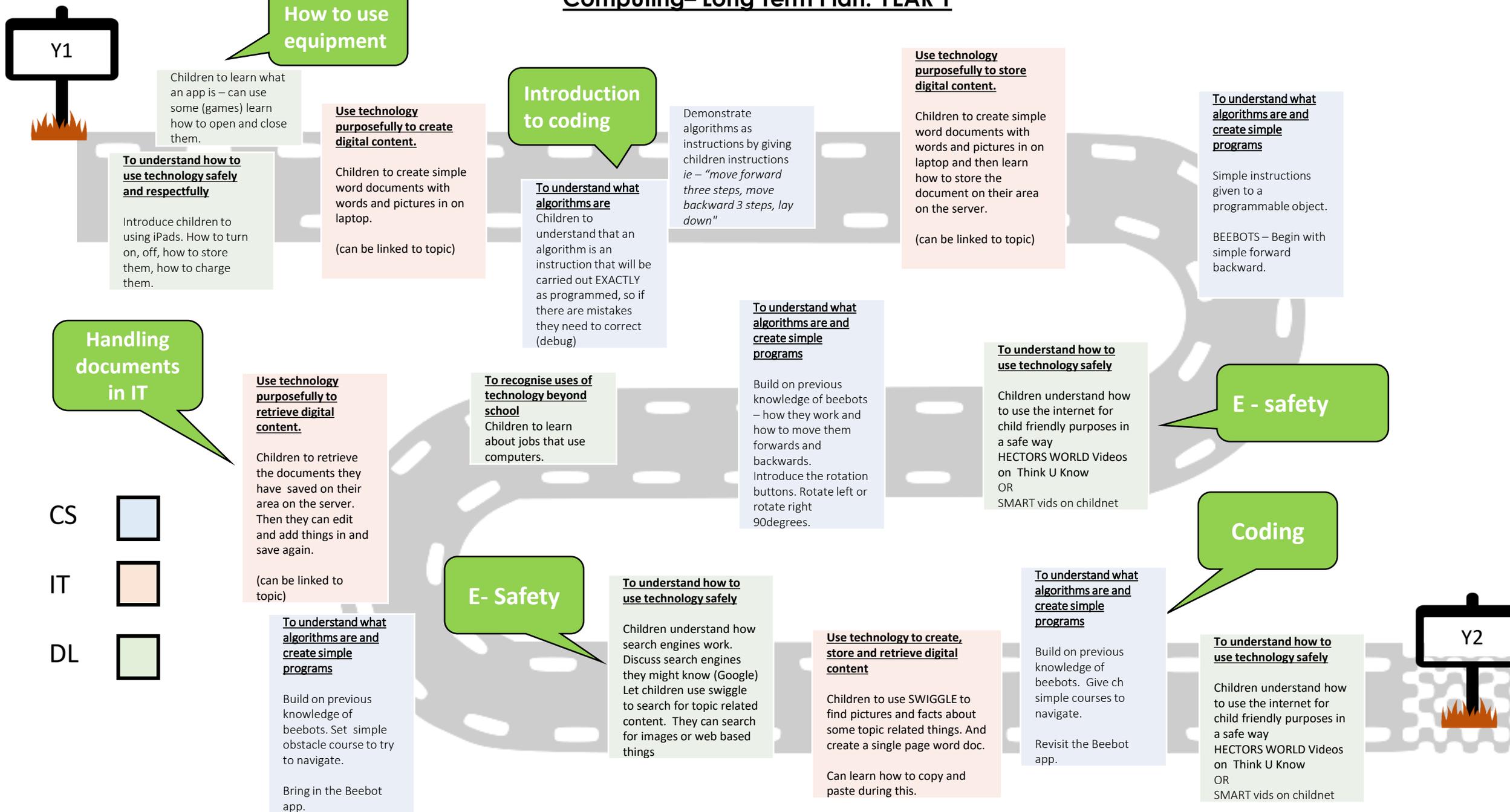


Example pages of
'progressive road map'
Appendix 2

Computing– Long Term Plan. YEAR 1



Y1

How to use equipment

Children to learn what an app is – can use some (games) learn how to open and close them.

To understand how to use technology safely and respectfully
Introduce children to using iPads. How to turn on, off, how to store them, how to charge them.

Use technology purposefully to create digital content.
Children to create simple word documents with words and pictures in on laptop.
(can be linked to topic)

Introduction to coding

To understand what algorithms are
Children to understand that an algorithm is an instruction that will be carried out EXACTLY as programmed, so if there are mistakes they need to correct (debug)

Demonstrate algorithms as instructions by giving children instructions *ie – “move forward three steps, move backward 3 steps, lay down”*

Use technology purposefully to store digital content.
Children to create simple word documents with words and pictures in on laptop and then learn how to store the document on their area on the server.
(can be linked to topic)

To understand what algorithms are and create simple programs
Simple instructions given to a programmable object.
BEEBOTS – Begin with simple forward backward.

Handling documents in IT

Use technology purposefully to retrieve digital content.
Children to retrieve the documents they have saved on their area on the server. Then they can edit and add things in and save again.
(can be linked to topic)

To recognise uses of technology beyond school
Children to learn about jobs that use computers.

To understand what algorithms are and create simple programs
Build on previous knowledge of beebots – how they work and how to move them forwards and backwards. Introduce the rotation buttons. Rotate left or rotate right 90degrees.

To understand how to use technology safely
Children understand how to use the internet for child friendly purposes in a safe way
HECTORS WORLD Videos on Think U Know
OR
SMART vids on childnet

E - safety

- CS
- IT
- DL

E- Safety

To understand what algorithms are and create simple programs
Build on previous knowledge of beebots. Set simple obstacle course to try to navigate.
Bring in the Beebot app.

To understand how to use technology safely
Children understand how search engines work. Discuss search engines they might know (Google) Let children use swiggle to search for topic related content. They can search for images or web based things

Use technology to create, store and retrieve digital content
Children to use SWIGGLE to find pictures and facts about some topic related things. And create a single page word doc.
Can learn how to copy and paste during this.

To understand what algorithms are and create simple programs
Build on previous knowledge of beebots. Give ch simple courses to navigate.
Revisit the Beebot app.

Coding

To understand how to use technology safely
Children understand how to use the internet for child friendly purposes in a safe way
HECTORS WORLD Videos on Think U Know
OR
SMART vids on childnet

Y2

Computing– Long Term Plan. YEAR 2

Y2

How to use equipment

Children to learn what an app is – can use some (games) learn how to open and close them.

To understand how to use technology safely and respectfully

Go over how we use technology safely and respectfully in school. How to unlock an ipad, how to open and close apps, how to lock it, how to turn off etc.

Use technology purposefully to create and organise digital content.

Children to create word documents with words and pictures in on laptop. Give children order in which it has to be organised. *ie picture first, words next, picture last.*

(can be linked to topic)

Introduction to coding

To understand that an algorithm is used on a digital program

Children to understand that an algorithm is an instruction that will be carried out EXACTLY as programmed, on a digital platform. Scratch/Scratch Jr.

Demonstrate algorithms as instructions by giving children instructions *ie – “move forward three steps, move backward 3 steps, lay down”*

Use technology purposefully to manipulate digital content.

Children to use word or powerpoint to import an image (topic relevant) Change the size of it. Write a word and change the font/colour/size of it. Underline a title and write another word in bold.

(can be linked to topic)

To understand that programs execute by following clear instructions

Revisit Beebots. Children to use the physical beebots and have to create a shape (a square) they can plan how they think it works then carry out the instructions.

BEEBOTS

Handling documents in IT

Use technology purposefully to organise and manipulate digital content

Children to create a word document with images, words (topic related) They copy/paste images and text into a document. Create a report (literacy link) Give specific structure for the file

To recognise where to go for help about something on a computer

Use SMART and Hector’s World vids for discussion points. Pose question on where ch would go for help online. (PSHE link)

To debug simple programs

Explain that debugging is solving a problem in an algorithm.

Start by giving simple oral instructions to make a square. Write down these instructions (missing something)(ch have to debug.

Can use Scratch Debugging 1.1 – move ch on as needed.

To understand how to use technology safely

Children understand how to use the internet for child friendly purposes in a safe way SMART vids on childnet

E - safety

CS



IT



DL



To understand what algorithms are and create simple programs

Introduce ch to scratch. This is similar to beebot, just on a screen (like the app)

Children to learn how to make the sprite move, and how to trigger the movement. Let them explore the types of movements.

E- Safety

To understand how to use technology safely (R)

Children understand how search engines work. Discuss search engines they might know (Google) Let children use swiggle to search for topic related content. They can search for images or web based things

Use technology purposefully to organise and manipulate digital content

Children to create a ppt presentation of 5 slides. With images on each slide and words to explain the images.

Can present to the rest of the class too. (Literacy/Topic link)

To understand what algorithms are and create simple programs

Children to develop skills on scratch. Revisit the movements that can be achieved. Explore how we can start it happening.

Change the sprite’s appearance, the background and add a new sprite in. Use algorithms to manipulate the sprites simultaneously.

Coding

To understand how to use technology safely

Children understand how to use the internet for child friendly purposes in a safe way SMART vids on childnet

Y3