Medium Term Planning Year 5 Computing Summer 2019

Summer One – Sketch Up

Curriculum Reference

Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Week 1	LI: I can make good online safety decisions.	Discuss the pros and cons of using You Tube and how old you have to be to have a You Tube account. Why is the age limit 13? Children are to work collaboratively to come up with ideas of what they could do if they saw something inappropriate on You Tube. Demonstrate how to turn on the You Tube safety mode button.
Week 2	LI: To explore the simple design tools within Sketch Up.	Watch the Google Sketch Up Forest Home Speed Build video https://youtu.be/c_gszozzH3U Discuss how 3D design tools like Sketch Up would help a builder or an architect. Demonstrate how to use the 'zoom' and 'orbit' tools and how to select different shapes. Get the children to use these tools to design a new shed for the playground sports equipment.
Week 3	LI: To create a basic box and roof design for their dream home.	Ask the children to spend 10 minutes creating a sketch on paper of what their ideal 'dream home' would look like. What are the difficulties of producing this on paper? Recap on how to use the push and pull tools to create a 3D

		rectangle. Demonstrate how to give a 3D model a roof, windows and doors. Children are to create the basic outline for their dream home.
Week 4	LI: To insert internal features and textures to their dream home.	Children use different colours and textures to liven up their dream home design. Demonstrate how to add premade 3D components from the 3D warehouse to their designs. Children will access these to create the outside area of their dream home.
Week 5	LI: To review and evaluate my dream home design.	Children work in pairs to present their dream homes to each other and point out the design features they included. Tell them now they must adapt their homes so that the design could be used for a home in a very hot country. What would they need to change about the doors, windows, outdoor area etc? Children amend their original designs and then complete their self-assessment sheets for this topic.

Summer Two – Code Bugs

Curriculum Reference

Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.

Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.

Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.

Week 1	LI: To understand what they can do to create a safer internet.	Watch the clip from the 2015 Internet Safer Day. https://www.saferinternet.org.uk/safer-internet-day/sid-2015/young-people-declare-better-internet-up2us Children work in small groups to create a video using clips which involves making pledges about what they can do to make the internet a better place for all. Groups then swap iPads to review each other's videos and feedback the messages they discovered to the class.
Week 2	LI: To explore CodeBugs and what each part does.	Display an image of a CodeBug and reveal what each of its parts does. Demonstrate how to create the code for scrolling text. Children then work in pairs to create a program that scrolls their own name.
Week 3	LI: To animate using the CodeBug.	Show the children a CodeBug which has an image loaded onto it. Ask them to say how they think the image was programmed. Get the children to make an image appear on their CodeBug, using the simulator to debug and test as they create. Challenge – to make a simple animation by programming the CodeBug to move from one image to another in quick succession.
Week 4	LI: To use inputs on the CodeBug and the selection (IF).	Refer children back to previous work created in Scratch and recap on what the IF tool does. Highlight the terms input and output. Give the pupils time to now develop a programme where they use both buttons to make different images appear.
Week 5/6	LI: To use several inputs on the CodeBug to produce different outputs.	Pupils are to design a program with up to 6 different patterns that will change as each input is pushed or grounded. They will be given a design Sheet to help them plan out their ideas, using diagrams, text and even sudo code. The plan should show what the inputs will do and how the LED will change using the back of the sheet.