Computing 24-25

Year 3 – Programming (Logo)

Remember when: beebots, scratch,	Key vocabulary

By the end of the unit children must be able to: - change the colour of the pen. - draw at least 4 shapes or letters using algorithms. - complete level 1.	backward pen down clear pen up forward repeat left turn right turn algorithm error program debug

Prior learning in Year 1:	Prior learning in Year 2:
- move the beebot forwards, backwards and turn. - be able to move a beebot to a given area.	- to create a new character. - to move the character. - make the character bigger /smaller. - make the character talk. - create a link of 3 algorithms.

National curriculum:
- 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.
- 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

Software

https://www.transum.org/software/Logo/

	Title / Focus	Lesson outline
	Lesson 1-What is an algorithm? **LO-** To identify what an algorithm is **Sticky knowledge-** I know what an algorithm is	Discuss with children what an algorithm is. Algorithms need to be made up of specific instructions and the ones we will be needing can only use certain commands (forward, backward, right turn, left turn, and need to be accompanied by numbers. Give verbal instructions for their partner to pick up a pencil, move across the playground, etc. Children to give each other an algorithm to create patterns on squared paper.
	Lesson 2- Using Logo and changing the pen colour **LO-** To change the pen colour **Sticky knowledge-** Change the colour of the pen.	Children to familiarise themselves with Logo online, practice using the different instructions to move the turtle and see what patterns they can create. Demonstrate how to change the pen colour and what numbers relate to each colour. Give instructions to create lines of different colours and lengths.
	Lesson 3- Logo algorithms **LO-** To change the pen colour **Sticky knowledge-** Change the colour of the pen.	Give children algorithms to follow to create different shapes in different colours. They need to follow the instructions and note which shape each algorithm has made and in what colour.
	Lesson 4- Drawing shapes **LO-** To use an algorithm to make a shape **Sticky knowledge-** Draw at least 4 shapes or letters using algorithms	Children build on their knowledge from previous week's lesson to create their own algorithms for different shapes.
	Lesson 5- Drawing letters **LO-** To use an algorithm to make a shape	Give children algorithms to follow to create different letters (not L, T, F) in different colours. They need to follow the instructions and note which letter each algorithm has made and in what colour. Children build on their knowledge from previous weeks' lessons to create their own algorithms for different letters.

Sticky knowledge- Draw at least 4 shapes or letters using algorithms	Children will use the instruction list given to create Focus on letters L, T and F (Logo challenges 1-3)	
Lesson 6- Assessment	Use the knowledge and skills from the previous lessons to complete the Level 1 challenges. (Letters, L, T and F and maze)	
Working towards	**End of Unit Assessment** Working at Age related expectations	Working at a greater depth