

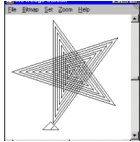


Overview



Programming is when we make a set of instructions for computers to follow.

-Logo is a text-based program that we can use in order to create shapes and patterns.



-We use algorithms (a set of instructions to perform a task) which we can plan, model and test, in order to create accurate and imaginative shapes and patterns.

Enquiry Questions

- What is an algorithm?
- Why do we need to use precise instructions in our code?
- How can we debug our algorithm?
- How can we group our code using brackets?
- How can we use repeating patterns?

Key Vocabulary

commands	Clear, precise instructions
code snippet	Commands joined together
pattern	A repeated instruction
repetition	To complete a code snippet more than once in sequence
algorithm	A set of precise, clear instructions/ commands
value	A number after a direction to show how much the turtle moves by (such as FD 100)
Turtle	The object that is programmed to perform actions
debug	To find a problem with the algorithm and fix it so that it works
screen time	How long we spend on devices such as tablets, phones, laptops and computers

Trialling and Debugging

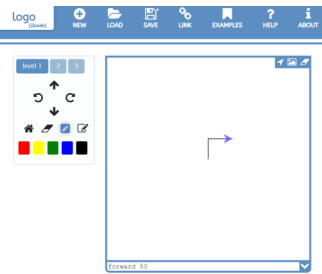
Programmers do not put their computer programs straight to work. They trial them first to find any errors:

Sequence errors: An instruction in the sequence is wrong or in the wrong place.

Keying errors: Typing in the wrong code.

Logical errors: Mistakes in plan/thinking.

Key Learning



Level 1

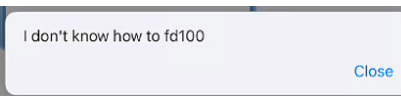
Using arrows to program the turtle.

Level 2

Logo is a text-based programming language, where we can type commands which are then drawn on the screen. FD, BK, LT, RT



Here is the algorithm in the command box



Debugging our algorithm

-Creating Shapes and Loops: Using the repeat function with shapes can help us to make spirals.

-Repeat: Type the command 'repeat' — this repeats commands a set number of times. The number following repeat is the number of times to repeat the code, and the code to be repeated is in square brackets, e.g. repeat 4 [FD 100 LT 90]

Retrieval

1. What is the name of the website/ program we have used for programming?
2. What is a turtle?
3. What is a command?
4. What would the command FD 100 do?
5. What would you type to turn the turtle right?
6. How do we fix errors in code?
7. Name one danger of too much screen time.
8. What shape would be drawn if I typed repeat 4 [FD 100 LT90]?
9. What punctuation is used to join my code?
10. What is an algorithm?

Online Safety Managing online information & Copyright and ownership

I can analyse information to make a judgement about probable accuracy and why it is important to make my own decisions regarding content .

I can talk about how screen time can sometimes distract us from other things such as being outdoors, spending time with others or sleep.

I can discuss how we can manage our screen time and the importance of this.