

# Year 9 Computing Learning Journey



## Binary & Algorithms

Binary Maths  
Linear Search  
Binary Search  
Flowcharts



## Animation

Create a party monkey  
Build a snowman  
Animation project



## Python Programming

Input/Output Challenges  
Sequence Challenges  
Selection Challenges  
Iteration



# KEY VOCABULARY

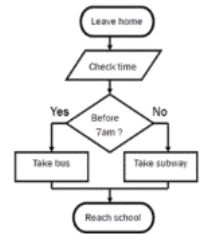
## Term One - Animation with Blender

- **Blender:** An open-source 3D graphics software used for creating animations and models.
- **Object Mode:** The mode in Blender where you can move, scale, and rotate whole objects.
- **Keyframe:** A marker that stores the value of an object's property at a specific time in animation.
- **Timeline:** The area in Blender where animation frames are set and keyframes are placed.
- **Parenting:** Linking one object to another so they move together (e.g., head to body).



## Term Two - Binary & Algorithms

- **Binary:** A number system using only 0s and 1s used by computers to store data.
- **Linear Search:** An algorithm that checks each item in a list one by one.
- **Binary Search:** An efficient algorithm that splits the list and checks the middle item.
- **Flowchart:** A diagram that represents a process using standard symbols.
- **Decision:** A flowchart shape used when a choice must be made (usually a diamond).



## Term Three - Programming with Python

- **Input:** Used to take data from the user (e.g., `input("What is your name?")`).
- **Print:** Displays text or output on the screen.
- **Sequence:** Instructions executed in order, line by line.
- **If Statement:** Used to make decisions in a program (selection).
- **Loop:** Used to repeat a set of instructions (e.g., `for` or `while`).



## Quick Recap Questions



1. What is Blender used for in Computing lessons?
2. What is a keyframe and what is it used for?
3. How does binary search differ from linear search?
4. What is the purpose of a flowchart?
5. In Python, how do you repeat instructions multiple times?