

Summer Vacation Assignment 2026-27
Subject: Computational Thinking & Artificial Intelligence
CLASS 7 | Total Marks: 20

| | | |
|----------------|---------------------------|-------------------|
| Name: _____ | Class & Section: _____ | Roll No: _____ |
|----------------|---------------------------|-------------------|

TOPIC: Algorithms & Smart Devices

AI in My Daily Life — A Summer Detective Journal

This summer, you will write algorithms for real activities and discover AI in the smart devices around you. Algorithms power every intelligent device!

Part A: Understanding Algorithms (2 Marks)

1. Define an algorithm. What are its three key properties?

2. Give an example of an algorithm from daily life (not from technology).

Part B: Write Your Own Algorithm (4 Marks)

Choose ONE summer activity from the list below and write a clear step-by-step algorithm for it:

- Preparing a summer drink (lemonade / lassi / milkshake)
- Packing a bag for a picnic
- Watering plants in the morning
- Setting up a cricket game

My chosen activity: _____

| Step | Description of Step |
|------|---------------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |

Part C: Smart Devices Around Me (4 Marks)


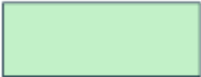



Observe your home, neighbourhood, or TV/phone during summer. Find 4 examples of AI-powered or smart devices/apps. Complete the table:

| # | Device / App Name | What Does It Do? | Where Did You See It? | How Is It 'Smart'? |
|---|-------------------|------------------|-----------------------|--------------------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |

Part D: Draw an Algorithm Flowchart (4 Marks)

Take your algorithm from Part B and convert it into a proper flowchart. Use correct symbols:

Oval = Start/End | Rectangle = Process | Diamond = Decision (Yes/No) | Arrow = Flow

| Symbol | Name | Function |
|---|---------------|--|
|  | Oval | Represents the start or end of a process |
|  | Rectangle | Denotes a process or operation step |
|  | Arrow | Indicates the flow between steps |
|  | Diamond | Signifies a point requiring a yes/no |
|  | Parallelogram | Used for input or output operations |

Draw your algorithm flowchart here:

Part E: Reflection (3 Marks)

Write 5-8 sentences: How do algorithms help smart devices work? What surprised you most?

Part F: Project Booklet Checklist (3 Marks)

- Cover page with name, class, and coloured title
- Algorithm written as steps (Part B)
- Smart devices table with drawings or photos (Part C)
- Flowchart drawn neatly with correct symbols (Part D)
- Reflection paragraph (Part E)
- At least 8 pages, well-organised and colourful

Submission Date: _____ Teacher's Signature: _____ Marks Awarded: _____ / 20