



**SCIENCE
BADGE**

AWARD TRUST

COMPUTER SCIENCE

This is a sample Computer Science Activity Sheet only. Its main purpose is to show you some of the interesting activities that you can do when you choose this badge. Also, you can use this sample sheet to start doing the badge activities, while your teacher is sending away for the full activity sheet and badge.

If you have completed some of these activities before your full sheet arrives, your teacher can mark this sheet, then transfer the marks to the full activity sheet.

Sample Computer Science Activity Sheet

| Rating | | Computer Science Activities | Teacher's initials and date |
|--------|-----|--|-----------------------------|
| 1 | * | Computing devices have evolved over time, showing how technology changes to meet new needs. Find and display pictures of six different computing devices from different eras, e.g., abacus, early calculator, early PC, smartphone. Write one fact about each. | |
| 5 | *** | Sorting algorithms organise data efficiently, which is important for faster searching and processing in computers. Act out both bubble sort and insertion sort methods using a pack of cards. Perform each sort twice, counting how many swaps it takes each time. Compare the results and write a short conclusion about which method was more efficient and why. | |
| 9 | ** | Research one famous computer scientist e.g., Alan Turing, Ada Lovelace, Grace Hopper, and write about 5 important milestones in their life and explain why they were important. | |
| 10 | ** | Logic gates form the basis of all digital circuits and computing operations. Draw and label the parts of a basic logic circuit with AND, OR, and NOT gates. | |
| 13 | ** | The internet transfers information through networks. Draw a diagram showing how information travels through the internet from one device to another. | |

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