# **Core Skills Analysis**

### **Technology & Computer Science**

- Victoria learned the fundamental components of a computer by engaging in a hands-on assembly, gaining a practical understanding of hardware parts such as the motherboard, CPU, RAM, and power supply.
- The activity developed Victoria's problem-solving skills as she had to figure out the correct order and placement of components to ensure the computer functions properly.
- By building a computer, Victoria enhanced her technical vocabulary and comprehension of how different parts interact to create a working system.
- The activity promotes logical sequencing and attention to detail necessary in technology tasks, laying foundational skills for more advanced computer science concepts.

## Tips

To further deepen Victoria's understanding of computers, encourage exploring the software side by installing an operating system and learning basic commands. Incorporate activities where she troubleshoots common hardware or software issues to build resilience and problem-solving confidence. To bridge theory and practice, she can research the evolution of computer components to understand design improvements over time. Gamify the learning experience by challenging Victoria to build virtual computers or simulate circuits using online tools to combine creativity with technical learning.

## **Book Recommendations**

- <u>How Computers Work</u> by Ron White: A visually rich guide explaining computer components and their functions with detailed illustrations, perfect for young learners.
- <u>DK Technology: Computers</u> by DK Publishing: An engaging introduction for children to the basics of computers and technology with easy-to-understand explanations and photographs.
- <u>Computer Coding for Kids</u> by Carol Vorderman: Introduces children to coding and computer fundamentals with interactive projects that complement hardware knowledge.

## Learning Standards

- National Curriculum Computing KS2: Understand computer components and their purposes (Computing Key Stage 2 Computers)
- Design and Technology KS2: Develop technical knowledge by building and disassembling mechanical devices (Design and Technology Key Stage 2 Technical Knowledge)
- Science KS2: Explore forces and systems through electrical circuits basics (Science Key Stage 2 - Electricity)

## **Try This Next**

- Create a labeled diagram worksheet of the computer parts Victoria assembled to reinforce component functions.
- Write a step-by-step instructional guide that Victoria can use to teach someone else how to build a computer.
- Conduct a simple quiz on computer parts and their roles to test retention and understanding.

## **Growth Beyond Academics**

This activity likely helped Victoria build confidence through successful assembly of a complex system and nurtured curiosity about technology. The hands-on nature encourages perseverance when faced with technical challenges, supporting emotional growth in patience and focus.