# **Core Skills Analysis**

## **Digital Literacy & Problem Solving**

- Mia develops hand-eye coordination and spatial awareness while navigating a tornado simulator game.
- She learns cause and effect relationships by chasing and reacting to dynamic tornado movements.
- The game encourages strategic thinking as Mia plans her actions to succeed within a fastpaced virtual environment.
- Mia practices patience and adaptability when dealing with unpredictable game elements.

## Science (Meteorology Basics)

- Mia is exposed to basic concepts about tornadoes through gameplay, sparking curiosity about weather phenomena.
- The simulator provides a virtual experience to visualize how tornadoes move and behave.
- She observes environmental effects caused by tornadoes within the game setting, offering a simplified real-world connection.
- The activity promotes initial understanding of natural disasters and their dynamics.

# Tips

To deepen Mia's understanding, consider integrating real-world meteorology concepts with her game experience. Explore simple experiments demonstrating air pressure and wind dynamics using household items like fans or balloons. Encourage her to research and present facts about tornado causes, safety precautions, and their impact on communities. Pairing gameplay with documentary videos or children-friendly weather apps will provide a well-rounded, experiential learning approach that connects digital play with scientific inquiry.

#### **Book Recommendations**

- <u>The Magic School Bus: Blows Its Top: A Book About Volcanoes and Other Natural Disasters</u> by Joanna Cole: An engaging story that introduces young readers to natural phenomena including tornadoes in an accessible and fun way.
- <u>Tornadoes!</u> by Charlotte Guillain: A nonfiction introduction to tornadoes, explaining how they form and their effects, suitable for middle-grade readers.
- <u>Storm Chasers: Twister Trackers</u> by Bobbie Kalman: Explores real-life tornado chasers and the science behind storm tracking, inspiring curiosity about weather science.

## **Learning Standards**

- ACELY1701 Exploring cause and effect relationships through digital interactions
- ACSIS231 Planning and conducting simple investigations related to weather phenomena
- ACELY1696 Developing problem-solving strategies in real-world and virtual settings
- ACSSU074 Understanding natural events impacting Earth's systems

## **Try This Next**

- Create a worksheet where Mia draws and labels different parts of a tornado, along with safety tips.
- Develop a quiz asking about tornado facts and game strategies Mia used to navigate the simulator.

#### **Growth Beyond Academics**

Mia is likely building resilience and focus as she navigates the unpredictable tornado simulator

environment. The game's fast pace may foster quick decision-making skills and persistence when challenges arise, enhancing her confidence in digital environments.