

Adapted Data Literacy Program for Cecilia (BVI Student)

Lesson Adaptation Overview: Cecilia will explore data literacy through tactile and auditory means, employing assistive technologies: screen reader, rubber tactile writing board, accessible tablet, and clay modeling.

Lesson Plan: Data-Driven Storytelling (3-Act Structure)

Objective:

- Interpret and compare data about animals through tactile and auditory senses.
- Develop data organization skills.
- Enhance communication through storytelling.

ACT 1 – The Discovery (Setting & Introduction)

Technology used: Screen reader, Accessible Tablet

Cecilia begins by listening to an engaging story read by the screen reader from her accessible tablet. The story introduces a curious girl named Emma who visits an animal sanctuary. Using rich auditory descriptions, Emma encounters various animals and wonders about their favorite foods and habitats.

ACT 2 – Exploring the Data (Conflict & Exploration)

Technology used: Tactile Writing Board, Clay

With guidance, Cecilia explores tactile representations of animals molded in clay. Each animal figure includes distinctive tactile marks indicating their category (e.g., diet: fruit, meat, plants).

Using the tactile writing board, Cecilia creates raised-line charts classifying animals based on these characteristics, focusing on comparing entities—like how many animals prefer fruits versus plants. The teacher narrates aloud the CSV data, reinforcing the tactile experience with numerical facts, such as: "Four animals eat fruit, two animals eat plants, and three animals eat meat."

ACT 3 – Sharing the Story (Resolution & Conclusion)

Technology used: Screen Reader, Accessible Tablet, Clay

Cecilia collaborates with classmates to form a conclusion based on their tactile data exploration. She helps craft a final story with the accessible tablet's speech-to-text features.

Data-driven story: "Emma's Special Animal Garden"

Emma decides to plant a special garden at the sanctuary. She uses her discoveries about animal preferences: fruit for the friendly monkeys, leafy greens for the quiet giraffes, and hidden treats for the playful lions. Cecilia narrates, "Emma learned that most animals liked fruits best, so she planted many apple and banana trees. She also planted some bushes with tasty leaves and special hidden snacks. Now, the animals were happy, and Emma felt joyful hearing the animals enjoy their meals every day."

The class, including Cecilia, reflects on what the data taught them about animal needs and how careful observation and exploration lead to better decisions.

Assessment:

- Cecilia verbally describes or tactilely indicates the number of animals in each category.
- Demonstrates understanding through verbal or tactile sorting activities.
- Participates actively in the storytelling session.