

Learning Activities: Fetal Alcohol Spectrum Disorders

In-class Activity: Concept Mapping

Instructions: Students work in small groups to create a concept map that links:

- FMR1 gene mutation
- FMRP function\
- Synaptic plasticity
- Dendritic spine morphology
- Affected brain regions (e.g., hippocampus, 6 cerebellum, prefrontal cortex)
- Behavioral outcomes (e.g., learning deficits, anxiety, sensory hypersensitivity)

Materials: Large paper or digital whiteboard tools (e.g., Miro, Jamboard)

Objective: Each group presents their map and explains one key pathway from gene to behavior.

Role-Play: Interdisciplinary Team Meeting

Activity: Students take on roles (e.g., geneticist, speech-language pathologist, early intervention 8 specialist, parent advocate) and simulate a team meeting to design a care plan for a child recently diagnosed with Fragile X.

Group Activity: Debate: Newborn Screening Ethics

- Divide students into two groups to debate the implementation of newborn screening for Fragile X syndrome (Tassone, 2014). One side argues for universal screening; the other against it.