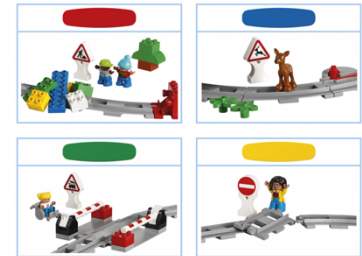# *Unplugged* Journeys – Trouble on the Road

In this lesson students will explore and understand various traffic signs and be able to solve common problems on the road.

STEM, Creative Exploration, Social Emotional Development, Early Math and Science

| PreK-K | 30–45 min. | Advanced |

Engage

- o Talk to students about traffic rules.
- o Ask questions like:
  - o Do you know any traffic rules? What are they?
  - o Why do we need to follow traffic rules?
- o Tell students that everybody needs to follow the traffic rules. Explain that traffic signs are one way of reminding people of the rules.
- o Show the four traffic signs from the set and ask the students if they can guess what they mean.
- o Tell them they're going to play a game!
  - o Place the traffic signs around the classroom and ask the students to pretend they're each driving their own high-speed train.
  - o Explain that they should slow down or stop when approaching marked areas.
  - o Act as a police officer controlling the flow of traffic, or ask one of the students to do it

Explore

- o Have each group of students pick a building card and build the model shown.
- o Have students work together to build a Y-shaped track and place their models alongside it.
- o Have students think about what is happening in each model and what will happen when the train passes by.
- o Have students explore with the different action bricks to see which one will help solve the problem.

KEY OBJECTIVES
Students will

- Understand various traffic signs
- Be able to solve common problems on the road
- Use the action bricks to help solve problems

STANDARDS

The Coding Express lessons have been developed using the K–12 Standards from the Computer Science Teachers Association and Common Core State Standards. They also support the science, math, and technology guidelines from the National Association for the Education of Young Children (NAEYC), the 21st Century Early Learning framework (P21) and Head Start Early Learning Outcomes Framework.

The learning goals listed at the end of each lesson can be used to determine whether each student is developing the relevant skills. These bullet points target specific skills or pieces of information that are practiced or presented during each lesson.

THINGS YOU'LL NEED

- Coding Express set (45025)
- Printable Model Card 1
- Printable Model Card 2
- Printable Model Card 3
- Printable Model Card 4
- Teacher Introduction and Learning Grid

Action brick colors on the model cards have no relevance to the unplugged lesson.

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Explain

- o Talk to students about the problems they've seen when the train travels on the track. (someone trying to cross; broken track; deer in the road; men working on the track)
- o Ask questions like:
  - o What did you see after the train passed each stop?
  - o How will you solve the problem?
  - o Which traffic sign do you need to solve each problem?

Elaborate

- o Encourage students to play and to use all the traffic signs.
- o Ask if they can think of any other important things to keep in mind to stay safe in traffic.
- o Encourage students to create their own traffic signs or models to help keep them safe in traffic.
- o Have them place their creations along the track and explain why they placed them where they did.

Evaluate

Evaluate the students' skills development by observing if they can:
- o Identify cause and effect relationships
- o Make predictions
- o Use strategies and plan to solve problems
- o Design and express ideas using digital tools and technology

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