Stopping Distance Construction Activity

Learning Intention:
We are learning about the factors which can influence a vehicle's stopping distance.

Success Criteria:
- I can explain why some vehicles are able to stop more or less quickly.
- I can predict whether cars, trucks, buses and trains will require greater or less stopping distance, based on my observations of their size and weight, quality of tyres and road surface...

Task:
Step 1: Build a vehicle from Lego, Duplo or recyclable materials.

Step 2: Balance a book or something flat on a step to create a 'ramp' for your vehicle. You may already have a hill in your backyard or a sloped driveway, that you could use!

Step 3: Let the vehicle go down the ramp.

Step 4: Now send some of your wheeled toys down the ramp or create a different vehicle, to compare to your first vehicle.

Think...
- Which vehicle took the longest to stop?
- Why do you think that was?

Reflect... Talk about these answers with an adult in your house
- How do your observations of this investigation relate to real vehicles around roads?
- How could your road safety behaviour change if you were better at predicting the stopping distance of a vehicle?

Curriculum Links
Health & Physical Education: Level 1 & 2 - Identify people and actions that help keep themselves safe and healthy (VCHPEP059)
Health & Physical Education: Level 1 & 2 - Identify actions that promote health, safety and wellbeing (VCHPEP062)
Health & Physical Education: Level 1 & 2 - Recognise situations and opportunities to promote their own health, safety and wellbeing (VCHPEP074)
Science: Foundation to Level 2 - The way objects move depends on a variety of factors including their size and shape: a push or a pull affects how an object moves or changes shape (VCSSU048)
Science: Foundation to Level 2 - Represent and communicate observations and ideas about changes in objects and events in a variety of ways (VCSIS055)
Design and Technology: Foundation to Level 2 - Use materials, components, tools, equipment and techniques to produce designed solutions safely (VCDSCD020)
Critical and Creative Thinking: Foundation to Level 2 - Make simple modifications to known ideas and routine solutions to generate some different ideas and possibilities (VCCCTQ003)