



## NGSS Standards & Curriculum Alignment

Unit 2	Focus
2.0 2.1	Introduce Braking Challenge Analyze the Problem Components Consider Possible Solutions and Ask Questions
2.2	Design and Conduct Investigations: Why do moving objects come to a stop?
2.3	Core Idea Direct Instruction and Discussion: Forces
2.4 2.5 2.6	Design and Conduct Investigations on Inertia and how brakes function.
2.7	Core Idea Direct Instruction and Discussion: Speed, Velocity and Acceleration.
2.8 2.9	Design and Conduct Investigations on brake designs Apply scientific reasoning to interpret investigation results
2.10 <b>Engineering            Notebook</b>	Apply engineering knowledge on tradeoffs and optimization to final design challenge Use the design process to make a brake shoe with the shortest stopping distance Address the challenge through making design recommendations