<table>
<tr><td colspan="2">Name:
Reynolds, Moon</td><td>Grading Quarter:
2</td><td>Week Beginning: Week 6
11/18/24-11/22/24</td></tr>
<tr><td colspan="2">School Year: 2024-2025</td><td colspan="2">Subject: Science</td></tr>
<tr><td>Monday</td><td>Notes:
Grade 4
Unit 1:
Forces and Energy
Lesson 2:
Speed and Energy
Essential Question:
How are speed and energy related?</td><td>Objective:
• Students will construct an explanation about the relationship between speed and energy.

Lesson Overview:
• Explore
○ Pages 26-28- Inquiry Activity: The Moving Ball</td><td>Academic Standards:
5.P3U1.4
Obtain, analyze, and communicate evidence of the effects that balanced and unbalanced forces have on the motion of objects.
5.P3U2.5
Define problems and design solutions pertaining to force and motion.
5.P4U1.6
Analyze and interpret data to determine how and where energy is transferred when objects move.</td></tr>
<tr><td>Tuesday</td><td>Notes:
Grade 4
Unit 1:
Forces and Energy
Lesson 2:
Speed and Energy
Essential Question:
How are speed and energy related?</td><td>Objective:
• Students will construct an explanation about the relationship between speed and energy.

Lesson Overview:
• Assess Prior Knowledge
○ Page 23- Page Keeley Science Probe: Amusement Park
○ Page 25- Encounter the Phenomenon: What determines the speed of race cars?
▪ Video: Race Cars
▪ Sample Questions:
• How does the car move so fast?
• How does the driver stop?
• What makes the car go?
• Can I be a race car driver?</td><td>Academic Standards:
5.P3U1.4
Obtain, analyze, and communicate evidence of the effects that balanced and unbalanced forces have on the motion of objects.
5.P3U2.5
Define problems and design solutions pertaining to force and motion.
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Analyze and interpret data to determine how and where energy is transferred when objects move.</td></tr>
</table>

Wednesday	Notes:
	Grade 4
	Unit 1:
	Forces and Energy
	Lesson 2:
	Speed and Energy
	Essential Question:
	How are speed and energy related?
		Objective:
		• Students will construct an explanation about the relationship between speed and energy.
		
		Lesson Overview:
		• Explain
		  ○ Pages 30-31- Energy and Motion
		  ▪ Academic Vocabulary:
		  • Energy- the ability to do work.
		  • Potential Energy- energy that is stored inside an object (stored energy).
		  • Kinetic Energy- the energy an object has because it is moving (energy of motion).
		  ▪ Students read and answer the following questions:
		  • What happens to the potential energy of an object when it is raised higher?
		  • How are energy of motion and speed related?
			Academic Standards:
			5.P3U1.4
			Obtain, analyze, and communicate evidence of the effects that balanced and unbalanced forces have on the motion of objects.
			5.P3U2.5
			Define problems and design solutions pertaining to force and motion.
			5.P4U1.6
			Analyze and interpret data to determine how and where energy is transferred when objects move.

Thursday	Notes:
	Grade 4
	Unit 1:
	Forces and Energy
	Lesson 2:
	Speed and Energy
	Essential Question:
	How are speed and energy related?
		Objective:
		• Students will construct an explanation about the relationship between speed and energy.
		
		Lesson Overview:
		• Explain
		  ○ Pages 32-33- Energy and Speed
		  ▪ Label a Diagram: Speed and Energy of a Roller Coaster
		  • Write captions for the parts of a roller coaster ride.
		  • Describe the speed, potential energy, and kinetic energy at each point on the roller coaster track.
		  ▪ Engineering Connection
		  • How do mechanical engineers make roller coasters go faster?
			Academic Standards:
			5.P3U1.4
			Obtain, analyze, and communicate evidence of the effects that balanced and unbalanced forces have on the motion of objects.
			5.P3U2.5
			Define problems and design solutions pertaining to force and motion.
			5.P4U1.6
			Analyze and interpret data to determine how and where energy is transferred when objects move.

Friday	Notes: **Grade 4** **Unit 1:** Forces and Energy **Lesson 2:** Speed and Energy **Essential Question:** How are speed and energy related?	Objective: • Students will construct an explanation about the relationship between speed and energy. Lesson Overview: • Elaborate ○ Page 34- STEM Connection: *What Does an Automotive Technician Do?* ▪ Students will read the article. ▪ Talk About It • How might automotive technicians and mechanical engineers work together?	Academic Standards: **5.P3U1.4** Obtain, analyze, and communicate evidence of the effects that balanced and unbalanced forces have on the motion of objects. **5.P3U2.5** Define problems and design solutions pertaining to force and motion. **5.P4U1.6** Analyze and interpret data to determine how and where energy is transferred when objects move.