Kin	dergarten- Physical Science 1 – Motion and Stability – Forces and Interactions	
	Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object	
K- PS 1.	<b>Clarification Statement:</b> Examples of pushes or pulls could include a string attached to an object being pulled, a person pushing an object, a person stopping a rolling ball, and two objects colliding and pushing on each other.	
	<b>Assessment Boundary:</b> Assessment is limited to different relative strengths or different directions, but not both at the same time. Assessment does not include non-contact pushes or pulls such as those produced by magnets.	
		Motion and Stability - Forces and Interactions
	Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.	
K- PS 2.	<b>Clarification Statement:</b> Examples of problems requiring a solution could include having a marble or other object move a certain distance, follow a particular path, and knock down other objects. Examples of solutions could include tools such as a ramp to increase the speed of the object and a structure that would cause an object such as a marble or ball to turn.	
	<b>Assessment Boundary:</b> Assessment does not include friction as a mechanism for change in speed.	

21st Century Learning Expectations:	
<ul> <li>Communicate through various means</li> <li>Able to solve problems</li> <li>Take responsibility for their own learning</li> <li>Demonstrate technological fluency and adaptability</li> </ul>	Link for 21st Century Learning Expectations
Enduring Understandings:	
• Simple tests can be designed to gather evidence to support or refute student ideas about causes. (K-PS2-1), (K-PS2-2)	
Learning Competencies	Essential Question
Learning Competencies         Planning and Carrying Out Investigations         • With guidance, plan and conduct an investigation in collaboration with peers. (K-PS2-1).	<b>Essential Question</b> What are the effects of different strengths or different directions of pushes and pulls on the motion of an object?
Learning Competencies         Planning and Carrying Out Investigations         • With guidance, plan and conduct an investigation in collaboration with peers. (K-PS2-1).         Analyzing and Interpreting Data	Essential Question What are the effects of different strengths or different directions of pushes and pulls on the motion of an object? EQ based on these core ideas:

	Pushing or pulling on an object can change
	the speed or direction of its motion and can
	start or stop it. (K-PS2-1). (K-PS2-2)
	• PS2.B: Types of Interactions
	When objects touch or collide, they push on
	one another and can change motion. (K-PS2-
	1)
	<del>'/</del>
	• PS3.C: Relationship Between Energy
	and Forces
	A bigger push or pull makes things speed up
	or slow down more quickly (secondary to K-
	DEs ()
	<u>PS2-1)</u>
EXAMPLE Performance Task (good resource for developing into a Quality	
Performance Assessment):	
Making Objects Move (link).	

Kinder	garten- Physical Science 2 - Energy	
	Make observations to determine the effect of sunlight on Earth's surface.	
K-PS2- 1.	<b>Clarification Statement:</b> Examples of Earth's surface could include sand, soil, rocks, and water	
	<b>Assessment Boundary:</b> Assessment of temperature is limited to relative measures such as warmer/cooler.	
		<u>Kindergarten Energy</u>
K-PS2-	Use tools and materials provided to design and build a structure that will reduce the warming effect of sunlight on an area.	
2.	<b>Clarification Statement:</b> Examples of structures could include umbrellas, canopies, and tents that minimize the warming effect of the sun.	
21 <sup>st</sup> Cen	tury Learning Expectations:	
	<ul> <li>Communicate through various means</li> <li>Able to solve problems</li> <li>Take responsibility for their own learning</li> <li>Demonstrate technological fluency and adaptability</li> </ul>	Link for 21st Century Learning Expectations
Enduriı	ng Understandings:	
Cause a	nd Effect	
	• Events have causes that generate observable patterns. (K-PS3-1), (K-PS3-2)	

## Hinsdale School District Science Curriculum, Fall 2019 Kindergarten Physical Science 1 and 2

Learning Competencies	Essential Questions
Planning and Carrying Out Investigations	What is the offerst of suplishing the contain
Make observations (firsthand or from media) to collect data that can be used to make comparisons (K-PS2-1)	surface?
	What is meant by conservation of energy?
Constructing Explanations and Designing Solutions	
• Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem. (K-PS3-2)	EQ based on this core idea:
Connections to Nature of Science	
<ul> <li>Use different ways to study the world. (K-PS3-1)</li> <li>Begin science investigations with a question.</li> </ul>	<ul> <li>PS3.B: Conservation of Energy and Energy Transfer</li> <li>Sunlight warms Earth's surface. (K- PS3-1)</li> </ul>
EXAMPLE Performance Task (good resource for developing into a Quality Performance Assessment):	
Warmth of the Sun (link)	