Swedesboro-Woolwich School District's Science Curriculum Guidance Document

GRADE 3– Unit 1/Invisible Forces

Mission Statement
The primary goal of the Swedesboro-Woolwich School District is to prepare each student with the real life skills needed to compete in a highly competitive global economy. This will be achieved by providing a comprehensive curriculum, the integration of technology, and the professional services of a competent and dedicated faculty, administration, and support staff. Guiding this mission will be Federal mandates, including No Child Left Behind, the New Jersey Core Curriculum Content Standards, and local initiatives addressing the individual needs of our students as determined by the Board of Education. The diverse resources of the school district, which includes a caring PTO and active adult community, contribute to a quality school system. They serve an integral role in supporting positive learning experiences that motivate, challenge and inspire children to learn.

Unit/Module Overview
In unit 1, students will learn about: ● Balanced & unbalanced forces ● Balanced forces & engineering ● Patterns of motion, gravity, & friction ● Magnets & forces ● Magnets & engineering

Standards Covered in Current Unit/Module
Related Standards and Learning Goals
SCI.3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. SCI.3-5-ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can

be improved.

SCI.3-PS2-1 Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.

SCI.3-PS2-2. Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.

SCI.3-PS2-3 Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other.

Unit/Module Weekly Learning Activities and Pacing Guide			
Topic & # Days	**NJ Standards**	**Critical Knowledge & Skills**	**Possible Resources & Activities**
Balanced & Unbalanced Forces (1-2 weeks)	● 3-PS2-1. Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.	**Obj. We are learning to**: ● recognize the cause and effect relationship between the forces acting on an object and its motion **Suggested Formative Assessment(s)**: ● Lesson 1 exit ticket	● Materials ○ Mystery Science online ○ Mystery Science labs & worksheets ○ Mystery Science videos ○ 3rd grade team Google Drive
Balanced Forces & Engineering (1-2 weeks)	● SCI.3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. ● SCI.3-5-ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.	**Obj. We are learning to**: ● explore the relationship between the structure and function of different bridge designs **Suggested Formative Assessment(s)**: ● Lesson 2 exit ticket	● Materials ○ Mystery Science online ○ Mystery Science labs & worksheets ○ Mystery Science videos ○ 3rd grade team Google Drive
Patterns of motion, gravity, & friction (1-2 weeks)	● SCI.3-PS2-2. Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.	**Obj. We are learning to**: ● consider the cause and effect relationship between a material's surface and the amount of friction it has **Suggested Formative Assessment(s)**: ● Lesson 3 exit ticket	● Materials ○ Mystery Science online ○ Mystery Science labs & worksheets ○ Mystery Science videos ○ 3rd grade team Google Drive

Magnets & Forces (1-2 weeks)	• SCI.3-PS2-3 Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other.	**Obj. We are learning to**: ● consider the cause and effect relationship between the distance of a magnet and the strength of the force ● consider the cause and effect relationship between which directions two magnets are facing and if they will push or pull on one another **Suggested Formative Assessment(s)**: ● Lesson 4 exit ticket	● Materials ○ Mystery Science online ○ Mystery Science labs & worksheets ○ Mystery Science videos ○ 3rd grade team Google Drive
Magnets & Engineering (1-2 weeks)	• SCI.3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. • SCI.3-5-ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.	**Obj. We are learning to**: ● consider the cause and effect relationship between two magnets as a way to design solutions using the engineering process **Suggested Formative Assessment(s)**: ● Lesson 5 exit ticket	● Materials ○ Mystery Science online ○ Mystery Science labs & worksheets ○ Mystery Science videos ○ 3rd grade team Google Drive

Link to Additional Components including Cross Curricular Connections, Accommodations, Assessments, Etc

ELA Enduring Understanding Statements