

# Blackhawk School District

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## CURRICULUM

Course Title:	Science
Grade Level(s):	Fourth
Length of Period:	40 minutes per day per quarter taught
Faculty Author(s):	Mindy Furda and Brady Okon
Date:	January 2014

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### SCIENCE MISSION:

The goal of science education is to develop within students an understanding of the world around us by fostering curiosity, developing inquiry skills, and creating an excitement for learning science.

**COURSE DESCRIPTION:** In their fourth grade classrooms, the students will study science using hands-on inquiry based kits covering the topics of Variables, Magnetism and Electricity, and Water. Additionally, the students will study the solar systems and wetlands in conjunction with the lab science class.

4<sup>th</sup> Grade Science Curriculum Overview

<p style="text-align: center;"><b>1<sup>st</sup> Quarter</b></p> <p><b>Resources:</b> <i>Social Studies is taught</i></p>	<p style="text-align: center;"><b>2<sup>nd</sup> Quarter:</b></p> <p><b>Resources:</b></p> <ul style="list-style-type: none"><li>• <b>Variables FOSS Kit</b><ol style="list-style-type: none"><li>1. Investigation 1-Swingers</li><li>2. Investigation 3-Plane Sense</li></ol></li><li>• <b>Tessellations-Teacher Created Materials</b></li><li>• <b>How It's Made Unit</b></li></ul>
<p style="text-align: center;"><b>3<sup>rd</sup> Quarter:</b></p> <p><b>Resources:</b></p> <ul style="list-style-type: none"><li>• <b>Water FOSS Kit</b><ol style="list-style-type: none"><li>1. Investigation 1-Water Observations</li><li>2. Investigation 3-Water Vapor</li></ol></li><li>• <b>Wetlands Unit</b><ol style="list-style-type: none"><li>1. Fresh Water</li><li>2. Salt Water</li></ol></li><li>• <b>Space Unit</b></li></ul>	<p style="text-align: center;"><b>4<sup>th</sup> Quarter:</b></p> <p><b>Resources:</b> <i>Social Studies is taught</i></p>

The following outline provides a general overview of the course content, not a chronological timetable. The days denoted for each area provide an idea for the overall time spent working with a given topic throughout the school year.

Course Outline 2 <sup>nd</sup> Quarter	PA Core Standards	Approx. Pacing	Assessment Options	Suggested Resources
<p><b>Variables FOSS Kit</b></p> <p><b>Investigation 1 – Swingers</b></p> <p><b>Investigation 3 – Plane Sense</b></p> <p><b>Tessellations</b></p> <p><b>How It’s Made</b></p>	<p><b>S4.A.1.1.2:</b> Identify and describe examples of common technological changes past to present in the community (e.g., energy production, transportation, communications, agriculture, packaging materials) that have either positive or negative impacts on society or the environment.</p> <p>Identify and explain the application of scientific, environmental, or technological knowledge to possible solutions to problems.</p> <p>Recognize and describe change in natural or human-made systems and the possible effects of those changes.</p> <p>Apply skills necessary to conduct an experiment or design a solution to solve a problem.</p> <p>Identify and describe different types of force and motion resulting from these forces, or the effect of the interaction between force and motion.</p> <p>Identify systems and describe relationships among parts of a familiar system.</p> <p>Identify the types and uses of Earth’s resources.</p>	<p>12-15 days</p> <p>12-15 days</p> <p>12-15 days</p>		<p>Teacher created</p> <p>Video series</p> <p>PDE SAS</p>

Course Outline 3 <sup>rd</sup> Quarter	PA Core Standards	Approx. Pacing	Assessment Options	Suggested Resources
<b>Investigation 1 – Water Observations</b>	Use models to illustrate simple concepts and compare the models to what they represent	12-15 days		Water Foss Kit
<b>Investigation 2 – Water Vapor</b>	Identify the types and uses of Earth’s resources.	12-15 days		
<b>Wetlands Fresh Water</b>	Identify and describe living and nonliving things in the environment and their interaction.	12-15 days		
<b>Salt Water</b>	Describe, explain, and predict change in natural or human-made systems and the possible effects of those changes on the environment.	12-15 days		
<b>Space Unit</b>	Describe Earth’s different sources of water or describe changes in the form of water.			
	Identify and make observations about patterns that regularly occur and reoccur in nature.			
	Describe Earth’s relationship to the Sun and the Moon.			