



Daily Lesson Planning Tool

Teacher: _____ Course/Grade: 2nd School: _____

Unit # and Title: Investigating Changes in Magnets and Metals Date of Lesson: _____ Pd: _____

Lesson Topic/Title: of Magnet Properties and Uses of Magnet s

SOL/Objective/Learning Goals: Science 2.1, 2.2 Reading 2.1, 2.3, 2.4 Writing 2.6, 2.7

Essential Question: _____

Lesson Component	Teacher	Student
Engage & Hook	<p>Read aloud the book, <u>What Makes A Magnet?</u>, by Franklyn M. Branley. Synopsis: The book offers experiments for children to explore the properties of magnets, their poles, forces, natural magnets and artificial magnets, and the materials that will attract to them. It also tells how to make a magnet. Uses of magnets in our world are also included.</p>	<p>Teacher has prepared a mystery box of items to experiment with magnetic and nonmagnetic items. All students will be provided with a small whiteboard and marker. Students write numbers 1-5 on their boards. Teacher will hold up each item as item designated as 1, or 2, etc. Students will hypothesize whether or not each will attract or not. They will mark a check if it will attract and an x if they think it will not.</p>
Explain & Model	<p>Introduce the required vocabulary used in the text and related to the science SOLs. Repel, attract, bar magnet, horseshoe magnet, disc magnet, magnetize, magnetic field.</p>	<p>Teacher has prepared 5 shoe boxes filled with a variety of items such as paper clips, rubber bands, dime, penny, crayon, etc. Tie a horseshoe magnet by a string to a pencil to create a "fishing pole". Students will work in small groups and take turns fishing and noting which objects attract and do not attract to the magnet. Have children rotate responsibility for fishing and recording the data. After completing experiment, students can go back and check their previous predictions on the whiteboards.</p>
Explore & Apply	<p>In advance of this activity, teacher will place unusual items around the room that resemble metal, but will not attract to encourage student inquiry and exploration.</p>	<p>Students will be given a magnet and a clipboard to record data. They will work with a partner and test and record data as they explore items the classroom that attract to magnets.</p> <p>Journal Topics: What applications can you think of to use a magnet that are not already being done?</p> <p>Why didn't all metal objects attract to the magnet?</p>

Evaluate	<p>Teacher needs to prepare a list of 10 items, or gather the items, or pictures of the items that are both magnetic and nonmagnetic.</p> <p>Teacher will prepare an SOL formatted quiz on this portion of the unit.</p>	<p>Teacher can review the collected data of classroom activities above, noting accuracy as an informal assessment.</p> <p>Students will take a written quiz, by numbering their papers 1-10. Students will write a check or an x as they respond to each of the 10 items held up by the teacher. The x indicates it was not magnetic and the check indicates it was.</p> <p>Give SOL formatted quiz at the completion of the unit.</p>
-----------------	--	--