

Magnet Lesson Plan

Name: Priscilla Parks Date of Lesson: November 10, 2011 Time in _____ Time out _____ CT Name: Mrs. Baros

CT Signature _____ Subject Area: Science

School/Grade Level: Faye Webb Elementary/Kindergarten

Indicate One: CT+video Peer+CT CT1 SP1 +CT CT#2 SP2+CT

Overall Daily Goal: When given pictures of objects, the learner will correctly identify those that are magnetic and non-magnetic.

Status of this skill:
Extension

Standards/TEKS:

Science, Kindergarten

(6) Force, motion, and energy. The student knows that energy, force, and motion are related and are a part of their everyday life. The student is expected to:

(B) explore interactions between magnets and various materials;

English Language Proficiency Standards:

c) Cross-curricular second language acquisition essential knowledge and skills.

(1) Cross-curricular second language acquisition/learning strategies. The ELL uses language learning strategies to develop an awareness of his or her own learning processes in all content areas. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:

(E) internalize new basic and academic language by using and reusing it in meaningful ways in speaking and writing activities that build concept and language attainment;

Time Constraints:

Sponge: 5 Focus: 3 minutes; Input: 10 minutes; GP: 10 minutes; IP: 10 minutes; Closure: 5 minutes

Cognitive Objectives:

When given pictures of objects, the students will be able to correctly identify what objects are magnetic and what objects are non-magnetic by understanding what objects contain metal.

Modifications or Accommodations:

Select students will be provided with more opportunities to explore or engage in the lesson with the magnets and objects and additional time to complete their assignment.

Previous Knowledge Necessary:

The students have learned that magnets have forces that push and pull.

Community and Culture:

Students have been exposed to magnets all around them by using machines that have electric motors such as computers, televisions, video games, toys, kitchen and cleaning equipment, etc. Students are aware that many things in life depend upon the power magnets generate. It's important for students to learn about magnets, after all, they live on one that's called Earth.

Rationale:

Learning about magnets helps students understand forces and how they affect objects.

Materials Needed:

- 22 Magnets
- 4 Bowls
- 4 Pieces of fabric
- 4 Tongue depressors
- 4 Corks
- 4 Marbles
- 4 Leaves
- 4 Balloons
- 4 Erasers
- 4 Crayons
- 4 Scissors
- 4 Pennies
- 4 Quarters
- 4 Metal keys
- 4 Nonmetal keys
- 4 Paper clips
- 4 Nails
- 4 Hair pins
- "Magnet" book
- Sticky notes
- Chart paper
- Markers
- 22 "Magic Magnet" worksheets
- Three computers
- Voicethread

Multiple Intelligences:

1. Verbal-Linguistic: The students will use their verbal-linguistic intelligence throughout the lesson as we discuss what objects magnets are attracted to, what objects magnets are not attracted to, and why magnets are important. The students will also use their verbal-linguistic intelligence while working with the voice thread and voicing their hypothesis or conclusion about the magnets interaction with different objects.
2. Logical-Mathematical: The students will use their logical-mathematical intelligence throughout the lesson comparing the number of magnetic objects to the number of non-magnetic objects found in the bowl.
3. Visual-Spatial: The students will use their visual-spatial intelligence throughout the lesson when having hands on objects to explore with. The students will use their visual-spatial intelligence during the input when the teacher reads the book "Magnets" and the students follow along with the text and pictures. The students will use their visual-spatial intelligence during the focus, input, and closure by filling out a KWL chart and a T chart.
4. Bodily-Kinesthetic: The students will use their bodily-kinesthetic intelligence throughout the lesson by having hands on objects to explore with. The students will use their bodily-kinesthetic

intelligence at the end of the input by children do different motions to answer the teacher's questions. The students will use their bodily kinesthetic intelligence at the end of the lesson when they participate in a celebration cheer that involves movements.

5. Musical-Rhythmic: The students will use their musical-rhythmic intelligence at the end of the lesson when they participate in a celebration cheer that involves musical rhythm.
6. Interpersonal: The students will use their interpersonal-intelligence throughout the lesson as they answer questions about magnets together as a class. When this happens, students will understand that they can share at the same time.
7. Intrapersonal: The students will use their intrapersonal-intelligence during independent practice when asked to complete their "Magic Magnet" assignment.
8. Naturalist: The students will use their naturalist-intelligence as they explore with a leaf, and other objects made of different elements, to conclude if it's magnetic or non-magnetic.

Instructional Steps:

- Students will be seated on the carpet.
- Good morning class! Today we are going to learn more about magnets.
- By the end of our lesson, you will know what magnets are and are not attracted to.

Technology: The teacher will involve half the class in participating in a voice thread activity before the lesson. The students will be shown a picture with a few different objects and voice their hypothesis about which objects they think a magnet will pull and which objects a magnet will not pull. The students will also explain their reasoning behind their hypothesis.

Sponge Activity:

-The teacher will inform the students that to prepare for the lesson, they are going to get the opportunity to explore for approximately five minutes. Each student will receive a magnet of their own and each table will receive a bowl of objects to share. These objects include pieces of fabric, tongue depressors, corks, marbles, leaves, balloons, erasers, crayons, scissors, pennies, quarters, metal keys, nonmetal keys, paper clips, nails, and hair pins. The students will see what objects their magnet pulls and what objects their magnet doesn't pull. The students will be reminded of the expectations before and during this activity to ensure they use their time wisely considering it's a pre-lesson discovery activity.

● Focus/Anticipatory Set/Hook:

- The teacher will ask the students the following questions to answer that will lead to a class discussion that allows them to reflect on their discovery experience.
(The teacher will draw name sticks to select students throughout the focus)
- "What did you discover in this activity?"
- "What happened between your magnet and all the different objects?"
- "What objects did the magnet pull?"
- "What objects did the magnet not pull?"
- "Did you discover any similarities or differences between the objects?"
- The teacher will create a KWL chart with the students and fill out the "K" and "W" sections.
- This allows students the opportunity to share what they already know about magnets and what they want to know about magnets.

● Teaching:

- Input- Students will receive new information on magnets when the teacher reads the book "Magnets".
- Model/Demonstrate-
-The teacher will present the book "Magnets" to the students.

- The teacher will involve the students in answering questions throughout the book that are either asked on the pages in the reading or asked from the teacher's sticky notes.
 - The teacher will effectively incorporate higher order thinking questions and questions that encourage students to make connections with text to text, text to self, and text to world.
 - During the reading of the book, the teacher will make a text to world connection about the earth being a magnet and the earth having a north pole and a south pole.
 - After the teacher is done reading the book, the teacher will ask the following questions...
 - "How do you use magnets every day?"
 - "Would you want to be able to use your body like a magnet? Why or why not?"
 - "What have you learned about magnets that surprised you or that you didn't know before?"
 - The teacher will get the bowl of objects that the students experimented with during the pre-lesson discovery activity and explain to the class, "Now that we have learned more about magnets and what they pull, let's review all our objects and decide if they're magnetic or not magnetic."
 - The teacher will hold up one object at a time and ask the students to put their hands together in a clapping position if the object is magnetic or separate their hands if the object not magnetic.
 - After the students answer if an object is magnetic or not magnetic, the teacher will check the answer by seeing if the magnet pulls the object.
 - The teacher will list the information on a T chart to document objects that are magnetic on the left side and objects that are not magnetic on the right side.
 - The teacher will then ask the students to compare the objects that were magnetic and not magnetic and point out that the magnetic objects contain metal and the non-magnetic objects do not.
- Checking for Understanding-The teacher will use the following questions at the end of the input and remind students that magnets have forces that can push and pull.
 - "What are the two ends of a magnet named?"
 - "Does a north pole and a south pole of a magnet pull together or push each other away?"
 - "Do two north poles of a magnet pull together or push each other away?"
 - "Do two south poles of a magnet pull together or push each other away?"
- Guided Practice:
 - The students will return to their discovery activity again, however, this time they will work together as a table instead of individually.
 - The teacher will inform the students to sort the objects.
 - The teacher will recognize the different attributes that the students used to sort the objects.
 - The teacher will finally ask the students, if they haven't already, to sort the objects into a magnetic and a non-magnetic group.
- Independent Practice:
 - The teacher will give students directions...
 - "Each of you will receive a "Magic Magnet" paper. (Show students the handout)
 - "Give me the number one with your hand. First, you will write your name at the top of the paper."
 - "Give me the number two with your hand. Second, you will look at the pictures on the handout and circle the picture if it is magnetic and x the picture if it is non magnetic."
 - "Give me the number three with your hand. Third, you will color the pictures that you circled."
 - The teacher will inform the students that when they're done with their "Magic Magnet" worksheet, they may turn it over and color pictures of things that are magnetic.
 - The teacher will review the directions and correct order of completing the assignment by using corresponding magnets on the white board that say "write" for writing their name and identifying if each picture is magnetic or nonmagnetic, and "color" for coloring the pictures.
 - The teacher will remind students of what they are expected to do when they finish.

- The teacher will tell the students they may begin when they get their paper.
- The teacher will continue to repeat directions as needed to ensure students understand what they are expected to do.
- The teacher will monitor students as they complete the assignment and provide assistance as needed.
- EXTENTION/ENRICHMENT-Students who complete assignment quickly and/or need enrichment will turn their paper over to color pictures of things that are magnetic.
- Technology: The teacher will involve the half of the class that did participate in the voice thread earlier, before the lesson. The students will be shown a picture with a few different objects and voice which objects they found that the magnet pulls and which objects they found the magnet doesn't pull. The students will also explain their reasoning behind their conclusions.

- Closure:

- The teacher will compliment students/tables who are cleaning up and sitting with their head down to motivate other students to do the same.
- The teacher will call tables one at a time to return to carpet area.
- The teacher will review the importance of the lesson with the students and select students to answer questions by drawing name sticks out of a cup.
- The teacher will say, "We have learned a lot about magnets today."
- The teacher will complete the KWL chart with the students by filling out the "L" section.
- This allows students the opportunity to share what they learned about magnets.
- Thank you for being on your best behavior!