


Teacher Candidate Name: Meshell Alexa

Date: Tuesday, April 2nd 2019

Primary/Junior

Lesson Title: Attracted to Magnetism Grade Level: Kindergarten	Unit of Study: Magnetism Subject: Science
Lesson Overview: <i>Brief description of lesson: students will ...</i> <p>In this lesson the kindergarten students will be reading the story called <i>Magnetic Max</i> written by Monica Lozano Hughes. This story is about a boy named Magnetic Max and his friend Nick¹. Both children have a fun time exploring magnetism by testing out which objects are attracted to magnets and which objects are not². Nick however, is convinced it is magic that is causing objects to attract to magnets³. The kindergarten students in this lesson will discover with Magnetic Max and Nick that objects can either attract or repel while listening to the fun, engaging, and catchy story that rhymes⁴. After students have listened to the storybook they will then learn about magnetism further through exploration. Exploring magnets through hands on learning will allow students the opportunity to explore a stimulating science experiment where they can be excited to learn science concepts in an age appropriate manner. In this science experiment students are able to make predictions, and test out various objects by classifying which items are magnetic, non-magnetic and objects that are have both qualities of being magnetic and non-magnetic. Students will also be able to go on a scavenger hunt around the classroom to find more objects they can test out! To debrief students' learning we will then discuss their predictions and observations. Furthermore, this learning experience will allow students to practice their fine motor skills and be interested about the world around them.</p>	

Part 1: Lesson Goals and Assessment

Ontario Curriculum Overall Expectations: First frame: BELONGING AND CONTRIBUTING <ul style="list-style-type: none"> ○ OE1 “communicate with others in a variety of ways, for a variety of purposes, and in a variety of contexts”⁵ ○ OE22 “communicate their thoughts and feelings, and their theories and ideas, through various art forms”⁶ ○ OE25 “demonstrate a sense of identity and a positive self-image”⁷
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¹ <https://www.whatihavelearnedteaching.com/10-books-about-magnets-for-elementary-students/>

² <https://www.whatihavelearnedteaching.com/10-books-about-magnets-for-elementary-students/>

³ <https://www.whatihavelearnedteaching.com/10-books-about-magnets-for-elementary-students/>

⁴ <https://www.whatihavelearnedteaching.com/10-books-about-magnets-for-elementary-students/>

⁵ The Kindergarten Program Document

⁶ The Kindergarten Program Document

⁷ The Kindergarten Program Document

Second frame: SELF-REGULATION AND WELL-BEING

- **OE1** “communicate with others in a variety of ways, for a variety of purposes, and in a variety of contexts”⁸
- **OE3** “identify and use social skills in play and other contexts”⁹

Third frame: DEMONSTRATING LITERACY AND MATHEMATICS BEHAVIOURS

- **OE1** “communicate with others in a variety of ways, for a variety of purposes, and in a variety of contexts”¹⁰
- **OE11** “demonstrate an understanding and critical awareness of a variety of written materials that are read by and with their educators”¹¹

Forth Frame: PROBLEM SOLVING AND INNOVATING

- **OE13** “use the processes and skills of an inquiry stance” (i.e., questioning, planning, predicting, observing, and communicating)¹²

Ontario Curriculum Specific Expectations:

First frame: BELONGING AND CONTRIBUTING

- **OE1 1.2** “listen and respond to others, both verbally and non-verbally” (p. 126).
- **OE22 22.1** “communicate their ideas about something” (p. 135).
- **OE25 25.3** “express their thoughts (*e.g., about a science discovery, about something they have made*) and share experiences” (*e.g., experiences at home, cultural experiences*) (p. 137).

Second Frame: SELF-REGULATION AND WELL-BEING

- **OE1 1.6** “use language (verbal and non-verbal communication) to communicate their thinking, to reflect, and to solve problems” (p. 155).
- **OE1 1.8** “ask questions for a variety of purposes” (p. 156).
- **OE3 3.2** “demonstrate the ability to take turns during activity and discussions” (p. 165).

Third frame: LITERACY AND MATHEMATICS BEHAVIOURS

- **OE1 1.4** “sustain interactions in different contexts” (*e.g., with materials, with other children, with adults*) (p.187).
- **OE1 1.9** “describe personal experiences, using vocabulary and details appropriate to the situation” (p. 192).
- **OE 11 11.6** “use prior knowledge to make connections” (p. 207).

Forth Frame: PROBLEM SOLVING AND INNOVATING

- **OE13 13.1** “state problems and pose questions in different contexts and for different reasons” (*e.g., before, during, and after inquiries*) (p. 280).

⁸ The Kindergarten Program Document

⁹ The Kindergarten Program Document

¹⁰ The Kindergarten Program Document

¹¹ The Kindergarten Program Document

¹² The Kindergarten Program Document

- **OE13 13.2** “make predictions and observations before and during investigations” (p. 282).
- **OE13 13.3** “select and use materials to carry out their own explorations” (p. 283).

Big Ideas/ Enduring Understandings:

Students will understand that ...

[Is there room for dispositions, here, i.e., students will “feel,” “express emotions concerning ...”?]

- Students will feel curious about the world around them using all of their senses to explore the magnetic and non-magnetic items
- Students will understand science concepts and words such as ‘magnet’, ‘magnetic’, ‘non-magnetic’, ‘attract’, ‘repel’ and ‘magnetic field’ because these terms will be used in their future science education experiences
- Students will understand and be excited about force and motion called ‘magnetism’ because students will be exposed to words such as ‘push’ and ‘pull’ in their future science education experiences

Essential/Key Critical Questions:

Questions that drive the lesson ...

1. What is a magnet and what do you think a magnet can do? (*“A magnet is any object that attracts metals such as iron, steel, or cobalt. A Magnet can also attract or repel an object”¹³*)
2. What are the properties of magnetic and non-magnetic items? How are they similar or differ from one another? (*Magnetic items include nickels, spoons, key rings, paper clips and binder clips. They are magnetic because they are made up of steel or nickel. However, non-magnetic items include markers and erasers because markers are plastic and erasers are rubber which means these particular items are not attracted to a magnet*)
3. Why do you think some items can have both qualities of being magnetic and non-magnetic? (*a hair clip is made out of clear plastic, but the metal in the clip is magnetic making this item have both qualities*)
4. What happens to the force when you hold two magnetic wands fairly close to each other one in your left hand and the other in your right hand? (*You feel the magnetic force wanting to either attract or repel depending on the side you are holding your magnetic wand on*)

Student Learning Goal

We are learning to ...

We are learning about magnetism through hands on exploration. We will be able to use our sense of sight, taste, smell, and hearing when exploring items that have the qualities of being magnetic and non-magnetic. We will also learn that objects can have both qualities of being magnetic and non-magnetic. Also, we will go on a scavenger hunt around the classroom finding more objects to test out and discover.

Student Success Criteria:

What I am looking for (W.I.L.F.)

- I am actively involved and able to join in the discussion
- I am able to listen to the story book being read
- I am singing and acting out the poem about magnets
- I am asking questions for clarification purposes
- I am being curious about the world around me
- I am using the science vocabulary that was introduced for example words such as ‘magnet’, ‘non-magnetic’, ‘attract’, ‘repel’
- I filled out the worksheet to my best ability

Necessary Prior Knowledge, Skills, and/or Previous Lesson:

What must students first know and/or be able to do to be successful with this new learning ...

¹³ <https://www.pinterest.ca/pin/359091770283159887/>

- In a previous science activity, students explored clear mason jars that contained water and pipe cleaners (chenille stems). Students were able to use magnetic wands by placing it up to the mason jar making the pipe cleaners move¹⁴.
- In a previous exploration the kindergarten students made a magnetic painting using paint, paper plates, magnetic wands, and objects that are metal for example paper clips, screws and bolts to make a beautiful abstract painting¹⁵
- In a previous language lesson, students made words with magnetic letters and a baking pan
- Students were exposed to rich children’s literature about magnetism. For example, they read the following stories i) *What Can Magnets do* by Alan Fowler, ii) *Magnets: Pulling Together, Pushing Apart* by Natalie Rosinsky and iii) *What Makes a Magnet?* By Franklyn Branley

Instructional Strategies:

How will I design learning experiences to help them achieve?

- think pair share in the minds on part of the lesson
- hands on investigation (using manipulatives in the minds on, action and debrief part of the lesson)
- KWL chart of what students know, wonder, and learned
- large group instruction in the minds on and debrief part of the lesson
- individual and small group instruction in the action part and debrief part of the lesson
- making observations in the minds on, action and the debrief part of the lesson
- recording data in the action part of the lesson

Teacher Assessment:

- I’m going to find out what my students understand about magnets
- I will assess students working with their peers and working individually
- I will have students participate in the class discussions¹⁶
- I will be assessing students from their curiosity and exploration
- I will be assessing students by asking rich and meaningful open-ended questions
- I will state what the learning goal and success criteria is to the students¹⁷
- I will give verbal feedback on what students were doing well or what they need to improve on. For example, “outlining what was done well, what needs improvement, and how to improve”¹⁸
- I will take pictures of students’ work samples and engagement in the activity

Part 2: Lesson Preparation

New Vocabulary/Review Vocabulary:

- Magnetic force: “A non-contact force produced by magnetic materials that attracts or repels other magnetic materials”¹⁹
- Magnet: “An object containing iron or steel that can stick to metal or make other metal objects move towards itself”²⁰
- Non-Magnetic: Objects that are not attracted to a magnet
- Attract: “A force, which makes things move together or stay together”²¹
- Repel: “To move something away”²²

¹⁴ <https://www.pinterest.ca/pin/394909461055761360/>

¹⁵ <https://www.pinterest.ca/pin/245305510930660898/>

¹⁶ Growing Success Assessment, Evaluation and Reporting in Ontario Schools

¹⁷ Growing Success Assessment, Evaluation and Reporting in Ontario Schools

¹⁸ Growing Success Assessment, Evaluation and Reporting in Ontario Schools

¹⁹ The Science Curriculum Document

²⁰ <https://www.brighthubeducation.com/pre-k-and-k-lesson-plans/127723-two-day-magnet-lesson-plan-for-kindergarten/>

²¹ <https://www.brighthubeducation.com/pre-k-and-k-lesson-plans/127723-two-day-magnet-lesson-plan-for-kindergarten/>

²² <https://www.brighthubeducation.com/pre-k-and-k-lesson-plans/127723-two-day-magnet-lesson-plan-for-kindergarten/>

- Objects that has qualities of being magnetic and non-magnetic: objects that can be both magnetic and non-magnetic. For example: a hair clip is made out of plastic but it also has metal on it making the item both magnetic and non-magnetic.

Learning Environment/Safety Concerns and Precautions:

According to the textbook *Safety in Elementary Science and Technology A Reference Guide for Elementary School Educators* when students are exploring and investigating forces and motions I need to think about the potential hazards and risks that could harm the kindergarten students.²³ I will ensure that students use their walking feet at all times during the lesson exploration. The following materials/equipment that is listed below could potentially hurt students if not used properly. With that being said the following materials and equipment create an impact hazard or a pinch hazard.²⁴

Equipment/Material	Possible Hazard	Safety Plan
Metal Ruler	<ul style="list-style-type: none"> ○ If not used properly students can hurt themselves on the edge of the ruler as it is sharp 	<ul style="list-style-type: none"> ○ Before the students explore this item, I will show the students that the edge of the ruler is sharp so students are aware
Scissors	<ul style="list-style-type: none"> ○ If not used properly students can pinch or cut their fingers (cutting hazard) 	<ul style="list-style-type: none"> ○ Before the students explore this item, I will show students how to use the item properly. I will tell my students to be careful not to pinch or cut their fingers on the sharp part ○ I will also state to my students that the scissors should remain on top of the table at all times and how they should not run with the scissors in their hand because they can hurt themselves or others in the classroom
Screws	<ul style="list-style-type: none"> ○ If not used property students can cut or scrap themselves ○ Students can also hurt someone else if they scrap the screw on someone's skin 	<ul style="list-style-type: none"> ○ Before the students explore this item, I will show the students that there is a sharp part on the screw
Screw Driver	<ul style="list-style-type: none"> ○ If not used properly students can scrap or poke themselves or others 	<ul style="list-style-type: none"> ○ Before the students explore this item, I will show the students how to use this item properly
Hair Clip	<ul style="list-style-type: none"> ○ If not used properly students can get their finger jammed in the hair clip 	<ul style="list-style-type: none"> ○ Before students explore this item, I will tell them not to put their fingers in the hair clip as they can pitch their finger causing a pinch point hazard
Elastic Bands	<ul style="list-style-type: none"> ○ If used incorrectly the rubber elastic could fling back and hurt someone 	<ul style="list-style-type: none"> ○ Before students explore this item, I will tell them that the elastic band should not be used as a sling as you can hurt someone or yourself

²³ Safety in Elementary Science and Technology A Reference Guide for Elementary School Educators

²⁴ Safety in Elementary Science and Technology A Reference Guide for Elementary School Educators

Glass Mason Jars	<ul style="list-style-type: none"> ○ If students accidentally drop the mason jars and students touch the broken glass, the glass could cut their fingers. ○ I will also tell the students that the 3 mason jars should stay in the middle of the table so that they do not fall on the floor and break 	<ul style="list-style-type: none"> ○ If the glass mason jars break I would have students stay far away from the area so that students cannot cut their fingers. If this happens I would immediately pick up the glass, throw out the glass in a plastic bag and then immediately put it in the garbage. I would make sure the janitor vacuums the floor to ensure that every piece of glass was picked up
Paper Clip	<ul style="list-style-type: none"> ○ If students open up a paperclip the edge of it could cut or scrap their fingers 	<ul style="list-style-type: none"> ○ Before students explore this item, I will show the students that the paper clip should not be opened

Materials/Resources/Classroom Arrangement/Necessary Preparation:

Each table group will have:

- Three clear mason jars labeled ‘magnetic’, ‘non-magnetic’ and ‘both qualities of being non-magnetic and magnetic’
- Magnetic wands
- Various items that are magnetic and non-magnetic for example, scissors, paper clips, pencils, paper and etc. (refer to action part of the lesson)
- Tray to place objects on
- 3-D prompt statement to get students interested in the learning experience
- Worksheet called ‘Magnetic and Non-Magnetic’
- Clipboards
- Pencils
- Erasers
- *Magnet Max* written by Monica Loozano Hughes

References/Credits:

Sources used for lesson development

Worksheet for students with credit line at bottom

Magnetic Max by Monica Lozano Hughes

The Kindergarten Program Document

The Science Curriculum Document

Growing Success Assessment, Evaluation and Reporting in Ontario Schools

Safety in Elementary Science and Technology A Reference Guide for Elementary School Educators

<https://www.pinterest.ca/pin/359091770283159887/>

<https://www.brighthubeducation.com/pre-k-and-k-lesson-plans/127723-two-day-magnet-lesson-plan-for-kindergarten/>

<https://www.pinterest.ca/pin/197173289911650253/>

¹ <https://www.pinterest.ca/pin/397301998363550505/>

<https://www.pinterest.ca/pin/24488391700378019/>

<https://www.pinterest.ca/pin/394909461055761360/>

<https://www.pinterest.ca/pin/ATiD42eKsh7svnsq6AmNk-XXK5WgrjxdZ3hIGep-81pt9gT3BWiIdJU/>

Jocelyn’s help incorporating Indigenous perspectives into the lesson plan

Magnetic Worksheet inspired by <https://www.pinterest.ca/pin/176555247864065366/>

<https://www.whatihavelearnedteaching.com/10-books-about-magnets-for-elementary-students/>
<https://www.pinterest.ca/pin/394909461055761360/>
<https://www.pinterest.ca/pin/245305510930660898/>
<https://www.biblestudytools.com/topical-verses/bible-verse-about-rocks/>

Part 3: Lesson Design (3-Part Lesson)

minutes

Length of Period: Approximately 40

**Differentiated Instruction
Modifications
Accommodations
Ongoing Teacher Assessment
Indigenous Perspective**

Minds On (Before):
Minutes

Estimated Time: 5-10

- *“hook”*: to get students curious, interested and engaged in the lesson
- connect to prior learning and/or experiences (i.e., KWHL)
- student learning goal or concept focus

I will be sitting with my students on the carpet and I will get my students to answer the following questions. I will state: *“Have you ever heard of the word called ‘magnet’? What do you think a magnet could do?”* (I will write the word magnet on a large piece of paper on the easel so that students can visually see the scientific word that they will be learning more about)

I will then state to the students, *“With a peer beside you I want you to think-pair and share by stating if you know what a magnet is and what you can do with a magnet. Once you are done sharing with a peer beside you I want you to give me the thumbs up and I want some individuals to share.”*

Once students respond I will then ask for a volunteer on the carpet to come stand beside me by my rocking chair. I will give this student a magnetic wand and a large binder clip. I will articulate, *“I want you to hold these two items in your hand and play with them. I want you to tell me what you notice. I want you to use your sense of touch, hearing, and sight to observe the two items I have given you. A student might reply, “The magnetic wand is sticking to the binder clip”.*

I will then ask the student, *“what part of the binder clip is sticking together to the magnetic wand?”* The student might reply *“the silver part.”* I will then ask the class why do you think that? After the students and I have discussed this I will tell the student too go sit back down on the carpet.

I will then call on another volunteer to observe another item in front of the class. I will have the student hold the magnetic wand and an apple beside me near the rocking chair.

I will ask the volunteer, *“what do you notice about the two objects I have given you?”* The student might reply, *“nothing is happening”.* I will then state, *“I want you to use your sense of touch, smell, and hearing by observing the objects I have given you.”*

English Language Learners:
 - I will create a word wall for the ELL learners by putting the magnetism vocabulary in their home language right beside the English word
 -I will also provide them with a dictionary in their home language so that they are able to translate the words
 -Also, for the ELL’s I will pair these students in a group with a stronger student

Students with ADHD:
 -I will provide them with fidget toys so they are able to stay and sit still on the carpet

Student with Hearing Problems:
 -Have this student sit close to me on the carpet
 -Make sure the student is wearing their hearing aids

Students with Eye Sight Problems:
 -Have these students wear their glasses so they are able to see the anchor charts and story more clearly

**Multiple Intelligences
Visual-Spatial Learners:**
 -Anchor charts will be esthetically pleasing including words and pictures

Possible responses from the student:

- *“The apple smells sweet and the magnetic wand smells like nothing”*
- *“The apple feels smooth and so does the magnetic wand”*
- *“If I were to drop the apple it might make a noise but if I drop the magnetic wand it will for sure make a noise”*
- *“The apple isn’t sticking to the magnetic wand because there is no silver part on it like the binder clip had”*

I will then ask the student to go sit back down on the carpet and ask the whole class: *Was there ever a time when you were playing with magnets and different kinds of objects, and you have noticed something really interesting? Have you noticed that everyday objects we see in our environment can either be non-magnetic or magnetic or sometimes even be both? Have you noticed when you hold a magnet and another object together, the object can either attract (pull) or repel (push away)?*

For example, when Adelina was holding the binder clip she noticed that the binder clip was attracted to the silver part whereas when Josh was holding the apple it was not attracted to the magnetic wand at all. I will then state, “I wonder why that happened.” I will then tell the whole class, “Let’s explore in order to find more about magnetism!”

I will then state, *“We will now be reading a story called Magnetic Max written by Monica Loozano Hughes to learn more about magnetism.”* (As we are reading the storybook I will ask the kindergarten students some comprehension questions to ensure they are learning new concepts about magnetism. The questions I will ask will be engaging and age appropriate for the students)

Some potential questions I will ask the students about the storybook called *Magnetic Max*:

On the first and second page:

- What did Magnetic Max want to test out? (“he wanted to test what magnets attract”)²⁵
- In the picture what is Magnetic Max exploring with his magnetic wand? (“he is testing out if the toaster and the robot is magnetic or not”)²⁶

On the third and fourth page:

- When Magnetic Max was playing at Nicks house why do you think magnets blew Nicks mind? (“some objects were attracted to the magnet and some were not”)²⁷

On the fifth and sixth page:

- What is Max holding in his hand and what did he observe? (“He is holding a magnetic wand and a spoon. The spoon was attracted to the magnetic wand”)²⁸

On the seventh and eighth page:

-All students will be able to see the picture book on the carpet

Verbal-Linguistic Learner:

- I will be instructing my lesson using words and the students and I will be having discussions throughout the whole lesson

Interpersonal Learners:

-Students will be able to communicate and interact with each other throughout the lesson when it is time for discussions. I planned for discussions during the minds on, action and debrief part of the lesson.

Intrapersonal Learners:

-Students will be able to reflect on their learning by independently working on their science worksheets

Naturalist Learners:

-I will provide objects such as apples, acorns, rocks, and leaves for the students to explore (bringing the outside in)

Tactile Learners:

-Students will be able to explore the items that are magnetic, non-magnetic and items that have both qualities

Modifications:

-Students with IEP’s will be accommodated for

Accommodations:

-I will provide visual supports to help students with verbal instructions⁴¹

Ongoing Teacher Assessment:

²⁵ Magnetic Max

²⁶ Magnetic Max

²⁷ Magnetic Max

²⁸ Magnetic Max

⁴¹ Growing Success Assessment, Evaluation and Reporting in Ontario Schools

-When Nick asked Magnetic Max “How do you get them to stick” what did Magnetic Max say to Nick?²⁹ (“They stick to anything like iron, or steel, real quick”)³⁰

On the ninth and tenth page:

-What is Magnetic Max observing when he was holding his magnetic wand? (“metals such as rings and bracelets were attracted to the magnetic wand”)³¹

On the eleventh and twelfth page:

-What types of objects did Max and Nick find that stuck to their magnetic wand? (“objects such as paper clips, nails, and bolts stuck to the magnetic wand”)³²

On the thirteen and fourteenth page:

-Do you think the magnetic wand will stick to the rocking horse? Why or why not? (“no, it will not be attracted to the magnetic wand because of the material that the rocking horse is made out of”)³³

On the fifteenth and sixteenth page:

-What objects were Magnetic Max and Nick testing out that were non-magnetic? (“a ball, a plant, and a doll”)³⁴

On the seventeenth and eightieth page:

-Do you think the comb will be attracted to the magnetic wand? Why or why not?³⁵ (“no it will not because the comb is made out of plastic”)

-How do you think Magnetic Max felt when Nicks mom said, “Max your mom says it’s time to go home”³⁶ (“Magnetic Max felt sad because he wanted to continue to explore magnetism with Nick. He still wanted to play with Nick”)

On the nineteenth and twentieth page:

-When Magnetic Max went home why do you think he was happy laying in his bed reflecting on how his day went? (“Magnetic Max had fun exploring with Nick and is excited for what tomorrow brings when he continues his magnetism exploration with Nick”)³⁷

As a class let’s review some key terms and vocabulary that relates to magnetism. I will write the words on the easel and as a class we will define each word.

- A magnet is “An object containing iron or steel that can stick to metal or make other metal objects move towards itself”³⁸

-I’m going to find out what my students understand about magnets

-I will assess students working with their peers and working individually

-I will have students participate in the class discussions⁴²

- I will be assessing students by asking rich and meaningful open-ended questions

- I will state what the learning goal and success criteria is to the students ⁴³

-I will give verbal feedback on what students were doing well or what they need to improve on⁴⁴.

For example, “outlining what was done well, what needs improvement, and how to improve”⁴⁵

-I will take pictures of students’ work samples and engagement in the activity

Peer/Learner Assessment

-Have students aware of the learning goal and success criteria ⁴⁶

²⁹ Magnetic Max

³⁰ Magnetic Max

³¹ Magnetic Max

³² Magnetic Max

³³ Magnetic Max

³⁴ Magnetic Max

³⁵ Magnetic Max

³⁶ Magnetic Max

³⁷ Magnetic Max

³⁸ <https://www.brighthubeducation.com/pre-k-and-k-lesson-plans/127723-two-day-magnet-lesson-plan-for-kindergarten/>

⁴² Growing Success Assessment, Evaluation and Reporting in Ontario Schools

⁴³ Growing Success Assessment, Evaluation and Reporting in Ontario Schools

⁴⁴ Growing Success Assessment, Evaluation and Reporting in Ontario Schools

⁴⁵ Growing Success Assessment, Evaluation and Reporting in Ontario Schools

⁴⁶ Growing Success Assessment, Evaluation and Reporting in Ontario Schools

- When objects attract it means it is: “A force, which makes things move together or stay together”³⁹
- When objects repel it means: “To move something away”⁴⁰

I will then state to the students, “*Now that we have finished reading the story and talked about magnetism vocabulary, I want you now to be like Magnetic Max and Nick by exploring items that can be magnetic and non-magnetic. In the story Magnetic Max and Nick found objects that were both magnetic and non-magnetic but I want you now to be scientist and explore if an item can have both qualities of being magnetic and non-magnetic. That means an item can be part magnetic and the other part of the item can be non-magnetic. For example: a hair clip is both magnetic and non-magnetic because it has plastic on it but it also has metal on it making this item have both qualities.*”

Action (During):
minutes

Estimated Time: 20

- *introduce, explain, and demonstrate new learning/concept/skill (include explicit details)*
- *instructional strategies employed to create an interactive lesson*
- *provide opportunities for guided practice and check for understanding*
- *utilize opportunities for descriptive feedback to promote assessment as learning*

I will have students sit at a table where they can collaborate with each other and work independently when exploring items that are magnetic, non-magnetic and items that have both qualities of being magnetic and non-magnetic. The table top activity that will be set up on each table group will provide the opportunity to engage all of my kindergarten students.

I will have five table groups already set up so that once I dismiss students off the carpet they are ready to take on the role of being a magnetism scientist.

The following materials will be at each table group:

- 3 clear mason jars labelled ‘magnetic’, ‘non-magnetic’, and ‘both qualities of being magnetic and non-magnetic’
- Prompt statement to get the students interested
- Items that have the properties of being magnetic (for example: screws, screw drivers, bolts, nails, scissors, paper clips, binder clips, paper fasteners, rulers, staples, keys, marbles, pipe cleaners, bells, tongs, magnetic letters, rocks, key rings, belt buckles, tweezers, and etc.)
- Items that are non-magnetic (for example highlighters, popsicle sticks, erasers, books, Lego, small doll, pencils, crayons, markers, elastic bands, penny, nickel, dime, small wooden blocks, pine cones, leaves, post it notes, cotton pads, noodles, birthday candles and etc.)
- Items that have both qualities of being magnetic and non-magnetic for example hairclips, small clipboards, hair ties, hair bands, clothes pegs, and etc.
- Magnetic worksheet for each student
- Clipboard to attach to the worksheet
- Pencils and erasers

English Language Learners:

- I will create a word wall for ELL learners by putting the magnetism vocabulary in their home language right beside the English word
- I will also provide them with a dictionary in their home language so that they are able to translate the words
- Also, for the ELL’s I will pair these students in a group with a stronger student

Student with Hearing Problems:

- Make sure the student is wearing their hearing aids

Students with Eye Sight Problems:

- Have these students wear their glasses so that they are able to see more clearly

Multiple Intelligences

Visual-Spatial Learners:

- Anchor charts will be esthetically pleasing including words and pictures

Verbal-Linguistic Learner:

- I will be instructing my lesson using words and the students and

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⁴⁰ <https://www.brighthubeducation.com/pre-k-and-k-lesson-plans/127723-two-day-magnet-lesson-plan-for-kindergarten/>

Before dismissing the students from the carpet, I will then talk about the safety concerns of the objects that could potentially harm the students (refer to Learning Environment/Safety Concerns and Precautions part of the lesson plan). I will explain to the students how to fill out the worksheet so that students know what to do. After the students and I have discussed this I will then state the instructions of the learning experience.

1. Once you get to your table I want you to look at the items I have placed in the tray on the table. Are there different ways you can sort these items? What do you notice about them? Can you sort them by distinguishing if they are magnetic or non-magnetic? What makes an object have the quality of being both magnetic and non-magnetic?
2. Once you have sorted the items using the magnetic wands, place the items either in the mason jar labeled 'magnetic', 'non-magnetic' or 'both qualities of being magnetic and non-magnetic'.
3. Once you have sorted the items in their correct place, I want you to record your results by filling out the three-column chart by stating which items were magnetic, non-magnetic or had both qualities.
4. Once you have finished filling out the chart, share and discuss your findings with another peer at your table.

(I will write these instructions on an anchor chart with words and pictures so that students know what to do next, we will also go over this anchor chart together).

I will then state to the students, *"When you and your table group have finished sorting the items on the tray I want you to take your magnetic wand and go around the classroom by finding objects that are magnetic, non-magnetic, and items that have both qualities of being magnetic and non-magnetic. I want you to collect three items you have found on the scavenger hunt around our classroom so that you can share what you have found. We will then discuss your learning and findings on the carpet when you are finished."*

I will then dismiss the students off the carpet and let the students explore. I will be walking around the room to each table group by asking each student open-ended, rich and meaningful questions. I will be taking notes of each child's learning and taking photographs of their science discoveries.

Once students have sorted the items by placing them into the three mason jars, students are then to find three items on the scavenger hunt to share with others on the carpet during circle. Once that is finished, I will then gather the students back on the carpet to debrief their discoveries.

I will be having discussions throughout the whole lesson
- I created an anchor chart where the students will be able to read and see it

Interpersonal Learners:

-Students will be able to communicate and interact with each other throughout the lesson when it is time for discussions. I planned for discussions during the minds on, action and debrief part of the lesson.

Intrapersonal Learners:

-Students will be able to reflect on their learning by independently working on their science worksheets or work with others

Tactile Learners:

-Students will be able to explore the items that are magnetic, non-magnetic and items that have both qualities

Bodily/Kinesthetic Learner:

-Students will be going on a scavenger hunt around the classroom finding objects that are magnetic, non-magnetic and objects that have both qualities

Naturalist Learners:

-I will provide objects such as acorns, rocks, and leaves for the students to explore (bringing the outside in)

Modifications:

-Students with IEP's will be accommodated for

Accommodations:

-I will provide visual supports to help students with verbal instructions⁴⁷

	<p>-I will provide students extra time to complete the worksheet if needed⁴⁸</p> <p>Ongoing Teacher Assessment:</p> <ul style="list-style-type: none"> -I'm going to find out what my students understand about magnets -I will assess students working with their peers and working individually -I will have students participate in the class discussions⁴⁹ - I will be assessing students' exploration during the scavenger hunt - I will be assessing students by asking rich and meaningful open-ended questions - I will state what the learning goal and success criteria is to the students⁵⁰ -I will give verbal feedback on what students were doing well or what they need to improve on⁵¹. For example, "outlining what was done well, what needs improvement, and how to improve"⁵² -I will take pictures of students' work samples and engagement in the activity <p>Peer/Learner Assessment:</p> <ul style="list-style-type: none"> -Have students aware of the learning goal and success criteria⁵³ -Ask students individually how the learning and exploration went⁵⁴
<p>Debrief/Consolidation (After): minutes</p> <p><i>- opportunities for reinforcement or consolidation of new learning (concept/skill/strategy)</i></p>	<p>Estimated Time: 5-10</p> <p>English Language Learners:</p> <ul style="list-style-type: none"> - I will create a word wall for ELL learners by putting the magnetism vocabulary in their

⁴⁸ Growing Success Assessment, Evaluation and Reporting in Ontario Schools

⁴⁹ Growing Success Assessment, Evaluation and Reporting in Ontario Schools

⁵⁰ Growing Success Assessment, Evaluation and Reporting in Ontario Schools

⁵¹ Growing Success Assessment, Evaluation and Reporting in Ontario Schools

⁵² Growing Success Assessment, Evaluation and Reporting in Ontario Schools

⁵³ Growing Success Assessment, Evaluation and Reporting in Ontario Schools

⁵⁴ Growing Success Assessment, Evaluation and Reporting in Ontario Schools

- discussion (script questions; tie back to Enduring Understandings and Essential Questions)
- assigned task to demonstrate understanding or application of learning
- for assigned tasks, communicate "what I'm looking for"
- make connections back to the learning goal and success criteria

As a class we will read this poem that can be found below to debrief their learning. It will be written out on the easel where students are able to see it and sing it.

The poem is:

MAGNETS

I AM A MIGHTY MAGNET (SHOW A MAGNET)
 I CAN BE VERY STRONG (SHOW YOUR MUSCLES)
 BUT IF YOU USE ME EXACTLY RIGHT
 NOTHING CAN GO WRONG (SHAKE HEAD NO)
 I CAN PICK UP MANY OBJECTS (DEMONSTRATE THIS WITH A MAGNETIC WAND)
 BUT NOT EVERYTHING YOU SEE.
 I ONLY PICK UP OBJECTS
 THAT WILL ATTRACT TO ME.
 (SMACK HANDS TOGETHER)
 SO TAKE ME NOW AND TRY ME OUT
 AND YOU WILL QUICKLY SEE,
 WHAT DIFFERENT KINDS OF THINGS
 ARE PUSHED AND PULLED BY ME!
 (PUSH BOTH HANDS AWAY AND THEN PULL THEM TOWARD YOU) 55

I will first read the poem to the students and then I will get students to repeat the poem after me. After we have sung the poem a few times I will then put the poem in their poetry folders where they can share the poem with their parents. As a class we will also do a KWL chart together based on their learning. As a class we will discuss what they know, wonder and learned about magnetism based on their exploration.

I then have students share what items they have explored that were magnetic, non-magnetic and items that had both qualities. I will have students share what they had written down on their worksheets as we will discuss this as a class. I will also get the kindergarten students to share what items they have collected from the scavenger hunt to debrief their magnetism learning. I will ask students the following questions:

1. What objects did you sort that were magnetic? What characteristics did the items have? Why do you think these items were magnetic?
2. What objects did you sort that were non-magnetic? What did you notice? What makes these particular items non-magnetic?
3. Did you discover any objects that were both magnetic and non-magnetic? What did you notice about the items? Why do you think these items have both qualities?
4. When you went on the scavenger hunt around the classroom once you were done sorting the 3 magnetic jars what did you discover? What

home language right beside the English word
 -I will also provide them with an dictionary in their home language so that they are able to translate the words

Student with Hearing Problems:

-Make sure the student is wearing their hearing aids

Students with Eye Sight Problems:

-Have these students wear their glasses so that they are able to see more clearly

Visual-Spatial Learners:

-Anchor charts will be esthetically pleasing including words and pictures
 -All students will be able to see the poem

Verbal-Linguistic Learner:

- I will be instructing my lesson using words and the students and I will be having discussions throughout the whole lesson
 - I created an anchor charts where the students will be able to read it.

Interpersonal Learners:

-Students will be able to communicate and interact with each other throughout the lesson when it is time for discussions. I planned for discussions during the debrief part of the lesson.

Intrapersonal Learners:

-Students will be able to reflect on their learning by sharing what they had written on their science worksheets

Musical Learners:

<p>items did you find that were magnetic, non-magnetic or had both qualities? Why do you think these objects had these characteristics?</p>	<p>-Students will be able to sing along to the poem about magnets</p> <p>Kinesthetic Learners: -While students are singing the poem about magnets they are also going to be able to do the movements that go along to the poem</p> <p>Tactile Learner: -I will have students bring the objects they found on their scavenger hunt to the carpet</p> <p>Modifications: -students with IEP's will be accommodated for</p> <p>Accommodations: -provide visual supports to help students with verbal instructions⁵⁶ -provide students extra time to share⁵⁷</p>
<p>Lesson Extension/Homework/Future Responsibilities: <u>Lesson Extension:</u></p> <ol style="list-style-type: none"> 1. Students can explore magnets further by playing with a toy called, 'Magformers' where they are able to explore magnetism by creating 3D and 2D shapes and structures⁵⁸. (When constructing your design what do you notice about the magnet? <i>(The magnet always attracts and does not repel)</i>). 2. In small groups students can make 'magnetic slime'⁵⁹. Once the slime is made students can place different marbles and paper clips into the slime exploring magnetism further with their magnetic wands. (What do you notice about the items in the slime, why do you think marbles are easier to pick up with your magnetic wand than paper clips?) <i>(Both marbles and paperclips are magnetic however marbles are a tad bit easier to attract than a paperclip because the paperclip has a colorful plastic on it making it difficult for the magnetic wand to attract)</i>. 3. Students can create their very own magnetic marble races⁶⁰. (What is happening to the marble? <i>(the magnetic wand is making the marble move)</i>). 4. Students can explore magnetic discovery bottles in the science center⁶¹. What do you notice about what is in the discovery bottles? And what is your magnetic wand doing? <i>(the items in the discovery bottles are magnetic and</i> 	<p>Indigenous Perspective: -In a lesson extension have students look at magnetite and magnetic rocks⁶⁹ -In a lesson extension read a storybook about rocks and minerals and discuss how Indigenous people used these minerals and rocks⁷⁰</p> <p>Faith Based Perspective: -Have the scriptures from the Bible written out on an anchor chart so that students visually see them and have access to them</p> <p>Environmental Perspective: -Kinesthetic and Tactile learners will benefit from the nature/scavenger hunt when</p>

⁵⁶ Growing Success Assessment, Evaluation and Reporting in Ontario Schools

⁵⁷ Growing Success Assessment, Evaluation and Reporting in Ontario Schools

⁵⁸ <https://www.pinterest.ca/pin/197173289911650253/>

⁵⁹ <https://www.pinterest.ca/pin/397301998363550505/>

⁶⁰ <https://www.pinterest.ca/pin/24488391700378019/>

⁶¹ <https://www.pinterest.ca/pin/394909461055761360/>

⁶⁹ Jocelyn's help incorporating Indigenous perspectives into the lesson plan

⁷⁰ Jocelyn's help incorporating Indigenous perspectives into the lesson plan

non-magnetic making the magnetic wand attracted to the item or not attracted).

5. I will make ice that has paper clips and magnetic bells in it⁶². I will have students use a magnetic wand and explore what happens. I will state: What is happening to the ice? (*the magnetic wands are picking up the ice cubes because there are paper clips and bells in the ice. These objects are magnetic*).

A Lesson Extension for Indigenous Perspective:

-As a lesson extension the students and I can look at magnetite and magnetic rocks⁶³. The kindergarten students and I can read a book about rocks and minerals so that students can learn how Indigenous people used these materials (rocks and minerals)⁶⁴. As a class we can explore how the Indigenous people found these rocks valuable and explore this further.⁶⁵

A Lesson Extension for Faith-Based Perspective:

-Students can explore the following passages daily from the Holy Bible with the help and guidance of an educator. Each of the passages below have the word 'rock' in them. Students can discuss and analyze what the passages mean by studying them further.

i) Samuel 2:2 There is no one holy like the LORD; there is no one besides you; there is no Rock like our God⁶⁶.

ii) Psalm 18:2 The LORD is my rock, my fortress and my deliverer; my God is my rock, in whom I take refuge, my shield and the horn of my salvation, my stronghold.⁶⁷

iii) Psalm 62:2 Truly he is my rock and my salvation; he is my fortress, I will never be shake⁶⁸.

A Lesson Extension for Environmental Perspective:

-Students can go on a nature walk/scavenger hunt looking for numerous kinds of rocks. They are then to share what they have found during circle time. They are to share the attributes of the rock for example describe the colour, the size, the shape and etc. to each other.

For Homework:

1. Have students go around their house looking and collecting things that are magnetic, non-magnetic and items that have both qualities. I will then have students bring the items into the class to share during circle time

looking for fascinating and interesting rocks they want to share with each other during circle time

Bodily/Kinesthetic Learner:

- Build Magformers
- Make magnetic slime
- Make marble races
- Homework: have students go on a scavenger hunt at home

Tactile Learners:

- Create marble races
- Explore magnetic discovery bottles
- Exploring magnetic ice

⁶² <https://www.pinterest.ca/pin/ATiD42eKsh7svnsq6AmNk-XK5WgrjxdZ3hIGep-81pt9gT3BWiIdJU/>

⁶³ Jocelyn's help incorporating Indigenous perspectives into the lesson plan

⁶⁴ Jocelyn's help incorporating Indigenous perspectives into the lesson plan

⁶⁵ Jocelyn's help incorporating Indigenous perspectives into the lesson plan

⁶⁶ <https://www.biblestudytools.com/topical-verses/bible-verse-about-rocks/>

⁶⁷ <https://www.biblestudytools.com/topical-verses/bible-verse-about-rocks/>

⁶⁸ <https://www.biblestudytools.com/topical-verses/bible-verse-about-rocks/>



SUCCESS CRITERIA for the Lesson Plan*

I have	
❖ completed Part 1 (Lesson Goals) and Part 2 (Lesson Preparation) of the Tyndale template	
Part 3: Lesson design	
MINDS ON	
I have:	
❖ provided a “hook” to help engage my students in the lesson	
❖ activated students’ prior knowledge	
❖ introduced the book, resource, or other materials to be used in the lesson	
❖ scripted any questions I may need for a discussion	
❖ provided sufficient details so my ideas are clear to everyone: my students, my Associate Teacher, my Faculty Adviser AND ME	
❖ ensured the students know the learning goal of the lesson (W.A.L.T.)	
❖ provided a connecting sentence so the “MINDS ON” flows into the “ACTION” well	
ACTION:	
I have:	
❖ modeled the new learning – strategy/skill/concept	
❖ provided a step by step procedure showing how I will explain the new learning to my students	
❖ organized the content in a logical and sequential manner	
❖ included enough details in order to communicate the new learning clearly	
❖ made my lesson interactive so my students will be actively involved	
❖ kept my lesson focused on the learning goal.	
❖ provided opportunities for my students to practice <u>under my guidance i.e. guided practice</u>	
❖ checked for understanding	
❖ scripted any questions or “think alouds”	
❖ used appropriate technology (White board, youtube, Google documents, etc.)	
CONSOLIDATION/DEBRIEF	
I have:	
❖ provided opportunities for discussion	
❖ scripted key questions to drive the thinking in my summary discussion	
❖ circled back to the essential questions and enduring understandings	
❖ provided opportunities for my students to practice and consolidate the new learning (strategy/skill/concept)	
❖ communicated to my students what I am looking for in assigned tasks (W.I.L.F.)	
Part 4: Teacher Reflection	
I have:	
❖ reflected on the success of my lesson	
❖ thought about what might be changed next time	
❖ considered what future lessons might occur	
❖ recorded my reflection(s) on my day-plan or in my journal	