



Grade Level: Grade 2

Title:

Magnetism & Jesus' Love is a Great Attraction

Denomination: Catholic

Lesson ID: PS-G2-01-CA

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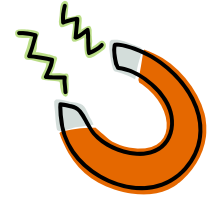
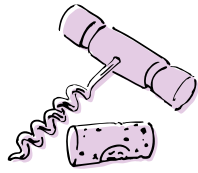
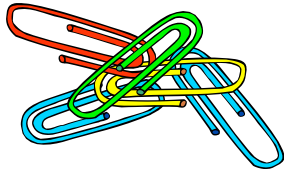
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Note: Web sites referenced in this lesson were valid at time of publication.

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PHYSICAL SCIENCE MODULE – GRADE TWO - CATHOLIC LESSON 1: Magnetism & We are Pulled Toward God

GENERAL CONCEPT: Magnetism

SCIENCE LESSON CONCEPT

1. Magnets attract other objects
2. Magnets have poles

GOAL OF SCIENCE LESSON

1. Student will know what materials are attracted to magnets.
2. Student will see how the poles affect attractions.

OUTCOME EXPECTED

1. Student will improve science skills
2. Student will learn that magnets can attract some objects and not others.

RELIGION LESSON CONCEPT

1. Jesus loves us with a powerful attraction greater than the power of the most powerful magnet.
2. Our faith pulls us toward God.

GOAL OF RELIGION LESSON

The student will learn about the power of God's love for us and our love for God.

OUTCOME EXPECTED

Children will experience God's love.

MATERIALS NEEDED

OPTION ONE AND TWO:

- Magnets of various shapes and powers
- Needle
- Cork
- Container of water
- Tin foil
- Iron object
- Brass object
- Aluminum can
- Plastic container
- Paper cup
- Science Journal Page: MAGNETS
- Copy of follow-up activity with magnets

OPTION TWO:

- A selection of at least ten items that have at two or more parts, some which may be attracted by the magnet: stapler, pair of glasses, book ends, radio, bicycle, skateboard, wrist watch, picture and frame, binder.

MATERIALS NEEDED

- Magnets for demonstration
- Paper clips- if possible, one per child.
- Option: Story of The Three Young Men in the Fiery Furnace who felt the strong pull to remain faithful and only worship the true God. See last pages

SCIENCE METHODOLOGY

OPTION ONE:

- **INSTRUCT** each student to predict and record the magnetism of each object using the Science Journal Page: Magnetism.
- **STUDENT DEMONSTRATES** using each object (needle, a piece of cork, water, tin foil, etc.)
- **STUDENT PLACES** the object at a distance from the magnet and slowly bring it closer and closer...result? Student records: YES (it was attracted) or NO (it was not attracted). Repeat for each object.
- **OPTION: A simple chart can be drawn on the chalkboard by the teacher and copied by the student in the Science Journal. An example of the chart is shown on the last pages of this lesson.**

OPTION TWO:

- **HAVE** the composite items placed round the room.
- **GIVE** each group of students a magnet and a list of the composite items. Have them find the item (or label each item with a number) and have them record on the page provided if the item was

RELIGION METHODOLOGY

- **DISCUSS** with the student how people feel the pull toward God. Every group of people in history has had a God or some gods to worship.
1) Example: Moses and the Israelites felt the pull to journey 40 years through the desert to reach the Promised Land
2) Faith-filled people felt drawn to pray with Pope Benedict XVI when he visited the USA
3) When Jesus called the 12 Apostles, each felt a strong pull to get up, leave everything and follow Him.
- **ASK:** When and where do you feel the pull toward God? (Church, when praying?)
- **EXPLAIN** that the way the paper clip is attracted to the magnet is the same way we are attracted to God, but God is a much more powerful magnet!
- **USE** the magnets and paper clips to allow students to either learn or remember the science lesson on magnetism.
- **ASK:** When we feel the pull and draw closer to God, how do we act? (Children offer replies – try to get them to be as specific as possible. Refine words like “be good” and “be nice” to specific actions.
- **SAY:** We can also be attracted to other things? What things attract us? (toys, pets, friends, treats, selfishness, being jealous, etc.)

attracted to the magnet. See sample page at end of lesson.

- **DISCUSS** the findings of each group. Why are some parts of objects attracted to the magnet? What do those parts have in common?

OPTION 1 & 2

- **HAVE** the student write a short statement on the Science Journal Page which reflects the results of the experiment. Note: it is helpful to have the POSIT on the chalkboard while the students complete this assignment.
- **POSIT-** Magnets attract some objects like (Have the student complete the sentence.)

- **ASK:** Which of our answers are good things? Which can be bad things? Why would these things pull us away from God?
- **ASK:** Who should have the greatest pull on us? (God)
- **POSIT:** We are attracted to God, our Creator.

RESOURCES, LINKS AND COMPUTER LESSONS.

Science Links

(Student and Teacher) Write Magnet poetry on-line and other options for using magnets and poetry.

<http://eduscapes.com/tap/topic114.htm#1>

(Teacher) Walnut shell skunk craft with magnets project.

<http://www.crafttown.com/kids/kc30.htm>

(Student) Site for kids to learn about magnets.

http://www.worldalmanacforkids.com/WAKI-ViewArticle.aspx?pin=wak-026005&article_id=529&chapter_id=12&chapter_title=Science&article_title=All About Magnets

(Teacher) Simple explanation for teachers about magnets.

http://www.worldalmanacforkids.com/WAKI-ViewArticle.aspx?pin=wak-026005&article_id=529&chapter_id=12&chapter_title=Science&article_title=All About Magnets

Religious Links

(Teacher) Excellent information on how to use a story to attract effectively students to God

<http://www.coldwatercafe.com/re-imagine/peel.htm>

(Teacher) Good article on being attracted to God

<http://www.daughtersofstpaul.com/growinginfaith/lifeways/glorify.html>

SAMPLE MAGNETIC ATTRACTION CHART

ITEM	YES	NO
PAPER CLIP	X	
PLASTIC CUP		X

The Story of the Three Young Men in the Fiery Furnace

<http://matneywoodard.home.att.net/shadrach.htm>

A Free Bible Story From Matney Woodard

Shadrach, Meshach and Abednego & The Fiery Furnace

A free online Bible story based on the Shadrach, Meshach, and Abednego story found in the book of Daniel in your Bible. The three Hebrew boys' faith was strong enough to stand up to the most powerful nation and the most powerful man in the world at that time, Nebuchadnezzar. If these three Hebrew boys had burned in Nebuchadnezzar's furnace that day, we probably would have never heard their story and enjoyed the benefit of learning that faith has and still does work!

Shadrach, Meshach and Abednego
&
The Fiery Furnace
By Harrison Woodard



"When thou passes through the waters I will be with thee; and through the rivers, they shall not overflow thee; when thou walkest through the fire, thou shalt not be burned; neither shall the flame kindle upon thee." -- Isaiah 43:2 KJV

Based on Daniel 3:1-30

A long time ago there was a vast empire called Babylonia that was ruled by a great king named Nebuchadnezzar. Nebuchadnezzar and the Babylonians had conquered pretty much everything. They even conquered Israel and took the best and the brightest people back to Babylon to serve in Nebuchadnezzar's court.

Among the captives were three young men named Hananiah, Mishael, and Azariah. Nebuchadnezzar thought these names were just too darn difficult to remember so he changed them to Babylonian names. Hananiah, he called Shadrach. Mishael's name was changed to Meshach. And Azariah's name became Abednego.

Now these three men were pretty darn smart. They believed God was real and knew He would always look after them. They talked with God everyday and kept His Word in their heart. And since God was the source of all their

wisdom, the three were successful at everything they did.

Now for such a powerful king, Nebuchadnezzar wasn't very smart. He built this giant golden statue over 90 feet tall and ordered everyone in the empire to come and worship it. Well everyone knows bowing to a statue is just plain silly. There is only one true God and he doesn't appreciate people worshipping anything other than Him, especially a great big hunk of gold. But Nebuchadnezzar did it anyway. And to make sure everyone would obey the new law, the king said that any person who did not worship the statue would be thrown into a fiery furnace.

So everyone gathered around Nebuchadnezzar's statue. When the music started, they all bowed down and worshipped it. That is, everyone but Shadrach, Meshach and Abednego. They knew better than following the crowd. God wouldn't take to kindly to them putting a statue ahead of Him. Besides, they loved God too much to let Him down. So there they stood, praising the one true God while everyone else bowed down.

Some of the king's servants saw Shadrach, Meshach and Abednego not worshipping the statue. They ran to the king and told him that



the three didn't obey the king's order. Well, Nebuchadnezzar was mad. People didn't disobey him. He commanded that the three be brought before him for questioning.

"Is it true that you refused to bow down to my golden statue?" asked Nebuchadnezzar.

"Yes, my king," said the three.

"When the music plays, you **will** bow down and worship my statue," demanded Nebuchadnezzar. "If you don't, you will immediately be thrown into the fiery furnace. And what god will save you from me?"

"If you throw us into the fire, our God whom we serve will save us from your hand. But even if you don't throw us into the fire, we will never worship your golden statue," answered the three.

Nebuchadnezzar was furious. He ordered the furnace to be cranked up seven times hotter than usual.

"Throw them into the furnace!" shouted the king.

The soldiers grabbed the three and bound them with rope and tossed them into the

flames. The fire was so hot that it killed the soldiers who carried them to the furnace opening.

Nebuchadnezzar was pretty darn glad to see them gone. He wasn't about to let anyone disobey him. He proudly walked over to the furnace and looked down into the flames.

"What's this?" asked the king. "Didn't we throw three men into the fire? I see four men walking around in the flames and one looks like an angel."

"Shadrach, Meshach and Abednego!" shouted the king. "You servants of the most high God come up out of the furnace!"

The three climbed out of the furnace and were quickly surrounded by the king's servants. They examined the men carefully. Not one thread of their clothes had been singed and they didn't even smell like smoke.

And Nebuchadnezzar said, "Bless the God of Shadrach, Meshach and Abednego who has sent His angel to protect them from the fire. I command this day that anyone who speaks evil about the God of Shadrach, Meshach and Abednego will be cut to pieces. For there is no

other god that will protect his people in this way.”

Nebuchadnezzar promoted the three and gave them great jobs in his empire. And just as God promises, they were prosperous in everything they did.

the real deal. No other god could do what their god did because they weren't real. The three had spoken God's Word and instantly an angel was sent to protect them from the fire. God's angels are still in the protection business. Are you speaking God's Word and putting your angel to work on your behalf?



Some Things To Think About

The three young men weren't just boasting when they answered the king. They had made a life out of getting to know God and His promises. They knew that God would save them. They had His Word (Psalm 91, Isaiah 43:2) on it! They just spoke in agreement with God's Word and had enough faith in their heart to believe that what they said would come true. Are you building your life on God's promises? Why don't you get started today?

In Nebuchadnezzar's world, there were many gods. But none had ever taken an active interest in the affairs of men. When Shadrach, Meshach and Abednego's God protected them from the fire, he knew they were worshipping

KEY WORDS
PHYSICAL SCIENCE – GRADE TWO – LESSON 1 - CA

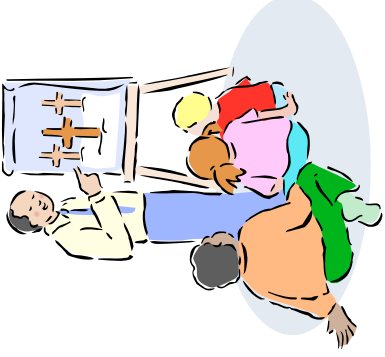
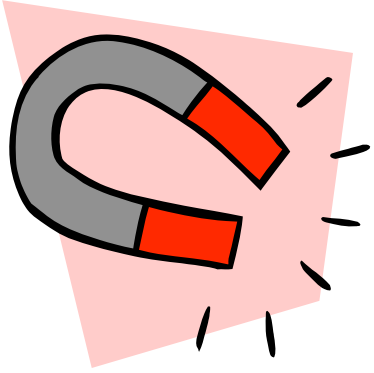


MAGNET
MAGNETISM
POLES
STRENGTH
PREDICTION
OBSERVATION
EXPERIMENTATION
CONCLUSION



ATTRACTION
LOVE
FIERY FURNACE STORY
POWER
CHOOSE

KEY WORDS
PHYSICAL SCIENCE – GRADE TWO – LESSON 1 - CA



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