

LESSON PLAN

STEM

Magnets Push, Magnets Pull

David A. Adler, illustrated by Anna Raff

We can't see magnetism although it is all around us! Explore the basics of magnetism, learn new vocabulary, and test and create magnetic fields through fun hands-on activities.

Objectives: Students will be able to read for purpose and understanding, identify text type, explain how specific images contribute to and clarify a text. Describe reasons that support specific points the author makes in a text.

Guided Reading Level: Q

Grade Level: 4

Interest Level: 2–5

Instructional Standards

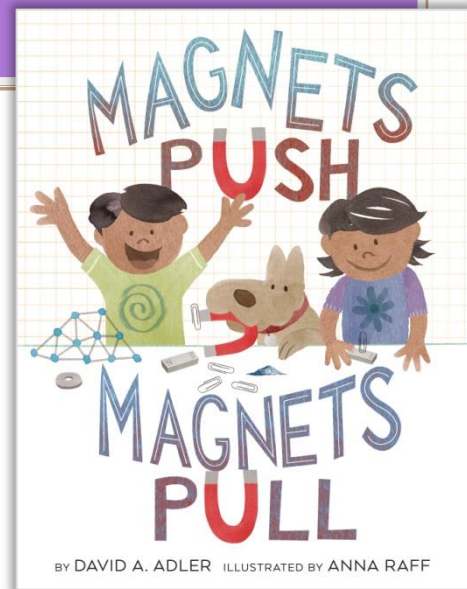
Reading Informational Text: RI.2-4. 1,2,3,4,5,7,8

Reading Foundation Skills: RF.2-4.3,4

Writing: W.2-4.2,3,4,7,8,9,10

Speaking and Listening: SL.2-4.1,2,3,4

Language: L.2-4.1,2,3,4,6



BY DAVID A. ADLER ILLUSTRATED BY ANNA RAFF

9780823436699 • Ages 5–8 • E-book available

BEFORE READING

Discuss:

1. Cover illustration and the book title
2. Text type: fiction or nonfiction
3. Why is it important to think about the type of text before reading?
4. Nonfiction vs. fiction:
 - Nonfiction texts give us information that is true
 - Is organized around a specific idea or topic
 - Teaches facts through reading
5. Not all nonfiction texts look the same. Give examples from prior reading:
 - **Narrative Nonfiction** tells a story about a person, event, or place. It is based on research.
 - **Expository Nonfiction** explains or informs about a topic.
 - **Descriptive Nonfiction** gives the reader a visual of what is being described using rich details and figurative language.
 - **Persuasive Nonfiction** is meant to influence how the reader thinks, feels, acts, or makes decisions with regard to a particular idea, issue or proposal.

Take a picture walk through the book.

1. Identify text features:
 - Table of contents
 - Foreword
 - Afterword



- Illustrations
- Photographs
- Captions
- Italics
- Diagrams
- Maps, charts
- Pronunciation guide
- Headings
- Glossary
- Index
- Further Reading
- About the Author
- Timeline
- Bold/colored print

2. What do you think this book will be about?
3. What do you already know about magnets?
4. Why do you think David A. Adler uses many detailed illustrations and captions in the book?

DURING READING

1. First reading/shared: Teacher reads aloud and models as students read along.
2. Second reading/independent: Students read silently.

Think about and identify . . .

1. Vocabulary words that are challenging. Predict the meaning based on context clues.
2. The text type (expository nonfiction)
3. The point of view of the story. Who is telling the story?
4. What you want to learn more about
5. How the specific illustrations clarify information
6. How Adler uses reasons and evidence in the book
7. The author's purpose (to entertain, explain, or persuade): Why do you think Adler chose to write this book?
8. For each activity create a journal explaining what you are trying to prove, what you think will happen, and what you observed.

AFTER READING

Make Connections

1. Check the inferred meaning of words and phrases in the glossary or dictionary
2. Describe something new that you learned from the book.
3. In your own words explain "magnetism."
4. Create a true or false quiz for the class using 10 facts from the book.
5. Describe how one of the hands-on activities helped you understand something new.
6. Explain why *Magnets Push, Magnets Pull* is considered an expository nonfiction text.
7. What did you find interesting about magnets?
8. Create a list of **simple magnets** and **electromagnets**.
9. Compare and contrast **simple magnets** and **electromagnets**. Create a Venn diagram based on characteristics you learned about and others that you researched.
10. How do magnets impact your life? How would your life change if you did not have a magnetic field for a day? Write a journal entry for a 24-hour period without magnetism.
11. Why is lodestone considered the only natural magnet?
12. Write an explanatory text explaining how the discovery of lodestone changed the world and advanced technology.



STEM Group Project

Create experiments to answer, explain, or show:

- What type of magnet is the strongest?
- Are two magnets as strong as one?
- magic with magnets
- a magnet can “levitate”
- you can make a magnet
- magnets can multiply

Guide written by Marla Conn, reading/literacy specialist and educational consultant

3.17

