Lesson 27
Close Reading

1st Read – Scratch the Surface
• get the gist of the text

2nd Read – Discover New Words
• highlight/underline any unfamiliar words
• use context clues to determine the meaning of the word
• write the definition on the text

3rd read – Dig a Little Deeper
• determine the main idea of each paragraph or section of the text
• write the main idea on a post-it

4th read – Analyze the Text
• teacher determines (identify theme, cause and effect, author’s purpose, etc.)
Maglev Trains

Have you ever heard of a maglev train? A maglev train is not your ordinary train. First of all, it doesn’t even touch the tracks. It actually hovers above them. Second, a maglev train is fast—very fast. Unlike ordinary trains, which travel about 150 miles per hour, maglev trains can whiz by you at nearly 350 miles per hour! Just what is a maglev train, and how does it work?

Maglev is short for magnetic levitation. Magnetic refers to magnets. Levitate means “to float in the air.” A maglev train uses magnetic forces to float and move above the tracks.

Like all magnets, the magnets used in maglev trains have ends, or poles. One pole of a magnet is called the north pole; the other pole is called the south pole. Opposite poles of magnets attract each other. Like poles repel, or push each other away.

In one kind of maglev train, magnets in the train and magnets in the track repel each other. They don’t allow the train and the tracks to touch, so the train is held above the tracks. Magnetic forces also pull the train forward.

What advantages does a maglev train have over a train that runs on steel tracks? Because a maglev train does not rub against the tracks, it can travel at much higher speeds than an ordinary train. Also, because it does not make contact with the tracks, a maglev train is much quieter than a regular train. Plus, a maglev train doesn’t have an engine that burns fuel, so it doesn’t pollute the air.

How would you like to ride on a maglev train?
research
Sometimes artists need to do research to find out what things look like.

Vocabulary Review

prove
Scientists are trying to prove, or show, that dinosaurs and birds are related.

power
This player uses all his power, or strength, to hit the ball out of the park.

familiar
This illustration is from a familiar, or well-known, story. It is from Cinderella.

gadget
A small gadget with many parts, such as a watch, can be hard to repair.
**electric**
The invention of the electric fan helps us to stay cool in hot weather.

**invention**
The light bulb was an invention that helped people do things at night.

**improve**
Coaching helps tennis players improve, or get better.

**tools**
Artists use tools such as brushes, pencils, and markers to make art.

**experiment**
First, an inventor must perform an experiment to test an idea.
Double Consonants

Choose a syllable from the left box and a syllable from the right box to make a word that completes each sentence. Write the word on the line and read the completed sentence.

Hint: Each word you make will have a double consonant.

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1. A magnet will ________________ a needle.

2. What do you think will ________________ next in that story?

3. Bonnie needs a ________________ marker to color the sun.

4. I spread ________________ on warm toast.

5. All of a ________________, it started to rain.

6. I can’t close my jacket because the ________________ is broken.

7. Climb up the ________________ carefully.

8. That joke was so ________________ that I hurt myself laughing.

9. Jake has one ________________ to buy a treat.

10. A mole will dig a ________________ under the ground.
Homographs and Homophones

Choose the correct meaning for the homophone or homograph in each sentence.

1. A magnet has a pair of poles.
   a. a fruit                               b. a set of two

2. Did I just hear the doorbell?
   a. listen to sound                       b. in this place

3. A refrigerator door has steel in it.
   a. a heavy strong metal                  b. take what isn’t yours

4. Some tools and toys use magnets.
   a. total                                 b. a number of

5. Take a peek at my invention!
   a. top of a mountain                     b. a look

6. Use a magnet to stick the paper to the refrigerator.
   a. attach                                b. a small piece of wood

7. Like poles of a magnet attract each other.
   a. to be fond of                         b. similar or the same

8. A watch needs a battery to run.
   a. a thing that tells time               b. to look at

9. A magnet will attract an object with iron in it.
   a. a thing                               b. to protest

10. You live with electromagnets all around you.
    a. not dead                              b. to be or exist
1. I studied multiplication all weekend to _____________ my grade.

2. The ____________ lamp was plugged into the wall outlet.

3. I chose to ______________ the continent of Africa for my project.

4. We conducted an ______________ using the laboratory equipment.

5. Carpenters use many different ______________ to complete a job.

6. The woman looked ______________, but I could not remember her name.

7. The bull had so much ______________ that he knocked a gate down.

8. We used a ______________ to help us put together the bookshelf.

9. We needed evidence to ______________ that she was innocent.

10. The man made an ______________ that was unlike anything we had ever seen.
The Power of Magnets Vocabulary Strategy: Homographs and Homophones

Circle the word that best completes each sentence.

1. Which word best completes the sentence?
   My mother wanted to _________ some milk at the grocery.
   a. bye
   b. by
   c. buy

2. Which word best completes the sentence?
   The teacher asked a question, and I gave her the _________ answer.
   a. right
   b. write
   c. rite

3. Which word best completes the sentence?
   The waves were rolling on the _________.
   a. see
   b. sea
   c. cee

4. Which word best completes the sentence?
   I needed to brush my _________ before I left the house.
   a. hair
   b. hare
   c. hear
**T-Map:**

Title or Topic  

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The Power of Magnets

Your Magnet Invention

Now is your chance to design a magnet to make your life easier! First, answer the questions below to make sure you understand how magnets work. Then, create your own design.

Read pages 20–21. What causes some objects to be attracted to a magnet?

Read page 22. What happens if you sprinkle iron filings around a magnet?

Read page 23. What is important about electromagnets?

Read pages 24–25. How can you create a magnetic field in your own home?
Now think of a way that you can use a magnet to improve your life. Will you use the magnet in your home or outside? Will you use it at school? Will you use a regular magnet or an electromagnet? Draw a picture of your magnet and write an explanation of how it works. Be sure that you include details from the text in your design.
Double Consonants

Read each word. Rewrite the word with a slash between the two syllables. Then say the word again. The first one has been done for you.

1. pillow  pil/low

2. college

3. attack

4. effort

5. pretty

6. tunnel

7. address

8. hidden

9. shallow

10. support
Vocabulary Test for the Power of Magnets

Write the vocabulary word that matches the definition

1. ____________ Well known, as from repeated experience

2. ____________ To show to be true by backing up with facts

3. ____________ An original device, system, or process

4. ____________ Careful study of a subject or problem

5. ____________ The force, strength, or ability to do something

6. ____________ To get better

7. ____________ A test to find out or prove something

8. ____________ Of, relating to, or produced by electricity

9. ____________ A device that is specially made or shaped to help a person do work

10. ____________ A small mechanical device

experiment  prove  power  gadget  electric
research  improve  familiar  tools  invention

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