

Addison Addley and the Trick of the Eye

Melody DeFields McMillan

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Consider the following question as you read Addison Addley and the Trick of the Eye:

How can one thing look different to two people?

Story

Addison's mother wants to sell their comfortable old house and move into a townhouse in a new development across town—a shoe box near a shoe factory, Addison calls it. As usual, Addison's brain goes into overdrive as he tries to solve two problems: first he must get his mother to see their old house in a new light, and then he must figure out who is responsible for a rash of neighborhood break-ins that make his mother feel unsafe. With the help of his friend, Sam, he puts his own unique spin on optical illusions (and home décor) and ends up surprising everyone, even himself.

Author

Melody DeFields McMillan is a teacher who lives in Simcoe, Ontario, not far from where she grew up. She is the mother of two adult children. When she's not writing, she's enjoying all that nature has to offer. Her first book about the irrepressible Addison (Addison Addley and the Things That Aren't There) was nominated for a Silver Birch Award.

Connecting to the Curriculum Language Arts

- Addison learns that it is important to look at things from different points of view.
 Divide students into groups and have a debate on an issue relevant to your school
 (bullying, allergies, etc). Each team will prepare arguments representing a different
 side of the issue. Examples of this would be student/parent, younger sibling/older
 sibling or sister/brother.
- Have students rewrite a fairy tale from a different point of view. Let the Big Bad Wolf from *Little Red Riding Hood* or a stepsister from *Cinderella* tell their own stories.
- Moving and changing schools can have a huge impact on a child. Have students write a journal entry about an event in their life that involved change (moving, watching parents divorce, having a new sibling, being involved in an accident, having a best friend move away, etc.) What feelings did they have at the time of the event? How do they feel now?
- Even language contains illusions. These are many French words that look the same as our English words, but they mean something completely different. Or/or (gold), main/main (hand), and pain/pain (bread) are a few examples. Have students find more examples and write short scenes where the words get mixed up.

Art

- Addison learns about *trompe-l'oeil*, or "trick of the eye," in his art class. The origins of *trompe-l'oeil* go back as far as ancient Pompeii and Greece. It is a technique that makes a piece of art look realistic by making it seem three-dimensional. Have students research different artists who specialize in this technique, like René Magritte. Who is their favorite? What makes the paintings seem so realistic?
- Op Art is a technique of painting that gives the impression of movement, hidden images, flashing and vibration, patterns, or alternatively, of swelling or warping. The most famous artist in this style is M.C. Escher. Have students research how the illusions are produced.
- Illusion in art is created by use of perspective and depth. Have students demonstrate their understanding of depth by creating a collage: First draw three trees of the same shape, but of increasing sizes. Then draw a horizon line near the top of their paper. Finally, glue on the three trees with the largest tree in front and near the bottom of the paper. The middle-sized tree goes in the middle of the page. Glue the smallest tree the highest up on the page, right on the horizon line. Which tree seems the farthest away?
- Study the use of converging lines and vanishing points in depth by having students draw a road that gets narrower in the distance. Scale buildings around it according to depth.

• Color plays an important part in depth and perspective. Have students paint a picture placing brightly colored objects next to darkly colored ones. Which ones seem close? Which seem to recede into the distance?

Science

- Addison learns about refraction when he is fishing. Refraction is the bending of a light beam as it passes from one material into another. Have students place a spoon in a glass of water, letting the spoon rest against the edge of the glass. Get them to record their observations. What happens to the spoon when they look at the glass from the side?
- A mirage is also caused by refraction. Have students research other examples of refraction in the world around us.
- Many illusions are caused by tricks of the eye and by the laws of optics. Have students draw and label a picture of the eye.
- Addison learns about concave and convex lenses in science class, and how they can make an object look completely different. Have the students conduct experiments with an ordinary spoon. How does their face look different when they look into the (concave) bowl of the spoon compared with the (convex) bottom of the spoon? What are some other examples of different lenses (doorknob, car side mirrors, telescopes, fun house mirrors, etc.)?
- Addison's class held a magic show based on science. Have students hold their own magic show with some of the tricks from the book: invisible ink, egg in a bottle, etc. What other scientific tricks can they use?

Drama

- Trent makes a mistake in the baseball game because he gets his signals mixed up.
 Hand signals are a way of communicating. Have students research sign language.
 Divide them into groups and have each group learn three signs that they must teach to the class.
- Mimes express themselves using signals and clues. Divide the class into groups and have them come up with a skit using only mime to convey their ideas. See if the rest of the class can understand the story.
- Explore how different gestures mean different things in different cultures. Have students write and perform a skit about the confusion that can result from cultural misunderstandings.
- When Addison begs for free stuff to fix up his house, he puts on his "best begging face" and heads downtown. Invite students to put on their best begging face. Ask students to think of different sorts of "faces." Take turns trying to guess each actor's mood.

Math

- In chapter one, we learn that Addison is responsible for maintaining the household budget. Have students interview their parents to determine the approximate distribution of money in their family's monthly budget (percentages, not dollars). Include categories like food, housing, clothes, entertainment, transportation, grooming, insurance, communication and any other categories students deem important. Ask students to draw a circle graph showing the percentage of the monthly household budget spent on each category.
- Parallel lines are an important part of depth perception. Have students define and draw parallel lines. Have them experiment by adding vertical lines of differing lengths between the parallel ones. How does this affect the look of the lines? Do they still look parallel?
- Measurement is an important part of math. What you see is not always what you get. Sometimes our brains get the clues wrong and we need to fill in the missing pieces. What we have then are optical illusions. Have students study different examples of optical illusions from various sources.
- Have students construct their own illusion. Carefully measure and cut out two
 circles of the same size. Glue them on a sheet of paper. Surround one with an
 outer ring of smaller concentric circles and the other with an outer ring of larger
 concentric circles. Notice what happens to the two middle circles.

Connecting to the Text

- Sometimes authors will use *word play* to make language funny or interesting. Near the end of chapter one, Addison is upset that his mother wants to move. "How much soul could a shoe factory have?" he wonders. Ask students to explain how this is an example of word play. With a partner, have them develop a few phrases of their own that use word play.
- A simile is a comparison using the words *like* or *as*. Similes are often an effective way to show action or mood in a story. Ask students to consider the following simile about Addison's mother: "She glanced over her shoulder like someone was hiding behind the fridge." What does this simile tell us about how Addison's mom is feeling? Have students find five more examples of similes in the story.
- In science class (ch. 9), Addison reflects: "Optics was pretty cool. Anytime you could trick somebody into thinking something else was pretty neat." While Addison may not think he's very smart, he's got some pretty sophisticated strategies of his own for getting other people—especially Sam—to do what he wants. Have students find three examples of this from the story.

- Like plot, setting and characters, *theme* is also an important literary element in any novel. Theme is an idea or message about life revealed in a work of literature. It's not really a moral, but it's kind of a guiding message all the same. Break your class into small groups and have them discuss what they understand to be the theme of *Addison Addley and the Trick of the Eye*.
- Addison Addley and the Trick of the Eye is written in first person, meaning the story is told from the main character's point of view. Have students rewrite the first five paragraphs of chapter two as though Sam is telling the story (some students will need your guidance to do this). Students may wish to rearrange some of the narrative, but they should keep the dialogue between the characters the same.

Connecting to the Students—Discussion Questions

- 1. In the middle of chapter three, Tiffany and Addison have an argument. How does Addison deal with Tiffany's rude comments? Do you agree or disagree with his approach? How would you deal with someone who speaks to you in an insulting manner?
- 2. When the Wildcats complain that the other team's bats are too broken, Addison reflects that sometimes old things are better, or even luckier. Just like his house. When in your life have you ever liked something old better than something new?
- 3. When the class is practicing for the magic show (ch. 9), Addison can't figure out why two of his classmates would ever want a science kit as a present. He would much prefer a video game! But as humans, our differences and preferences are what lead to *diversity*. Find a definition for the word diversity. Why is it a good thing among people? Does it sometimes make things harder? How does diversity contribute to the well-being of a society?
- 4. Even though he doesn't think he's very smart, Addison solves a mystery over the course of the book. What kind of skills does a person need to solve a mystery? Do you think Addison is really as dumb as he says he is?

Author's Note

Dear Readers,

The world is full of illusions. One thing can take on many different meanings, depending on how we look at it.

One day not too long ago I baked a pumpkin pie (pumpkin is my favorite). I always use canned pumpkin and just the right blend of spices and eggs and milk to make two delicious pies at once. It was almost Thanksgiving and unfortunately all of the stores near me had run out of pumpkin. I searched and searched and finally found one small can on a dusty shelf in a variety store. It would make one pie only. It was getting late so I rushed through my favorite recipe and ended up putting in the wrong amount of sugar (I guess Addison's fraction skills took over my brain). The pie was small, too sweet, and had a burned crust. It was more than a failure. It was a disaster. My children gobbled it up. They thought it was absolutely wonderful. To them it was a success because they didn't think I'd be able to find any pumpkin in

the first place, and the extra sweetness was just a bonus. One pie took on two different meanings.

I wanted to play with this idea of different meanings and viewpoints in the book. I wanted the book to be a blend of Addison's unique way of looking at the world, science and humor. Plus, I wanted to add a mystery.

Science and magic go together well. It is so exciting to think of the everyday things around us that are explained by science, but that still seem magical. A shimmering mirage, a spoon that gets bent in a glass of water, or a disappearing road on the horizon are all fascinating examples of the magic of science. Even language has its own illusions; words that look the same but have different meanings. Optical illusions are all around us, in art and in nature.

In this book Addison's crazy creativity goes into overdrive. Along the way, he learns that it really is important to look at the world from different angles, and from different points of view. Sometimes things really aren't as they seem.

Happy reading. Melody DeFields McMillan

Resources

Books

Fiction

Bar-el, Dan. Things are Looking Grimm, Jill; Things are Looking Up, Jack Scieszka, John. The Frog Prince Continued; The True Story of the Three Little Pigs

Nonfiction

Ausbourne, Robert. How to Understand, Enjoy and Draw Optical Illusions: 37 Illustrated Projects

Aust, Siegfried. Lenses: Take a Closer Look (681.4)

Burnie, David. Eyewitness: Light (535)

Cobb, Vicki and Kathy Darling. Bet You Can!: Science Possibilities to Fool You (793.8); Bet You Can't! Science Possibilities to Fool You (793.8)

Cole, Alison. Eyewitness: Perspective (701.82)

Heller, Lora. Sign Language for Kids: A Fun and Easy Guide to American Sign Language (419.7)

Kramer, Jackie. You Can Learn Sign Language

Meany, John and Kate Shuster. Speak Out: Debate and Public Speaking in the Middle Grades

Seckel, Al. Masters of Deception: Escher, Dali and the Artists of Optical Illusion (701.15); Optical Illusions: The Science of Visual Perception (152.148); The Ultimate Book of Optical Illusions (152.148)

Stille, Darlene. Manipulation Light: Reflection, Refraction and Absorption Turkington, Carol. The Complete Idiot's Guide to Cultural Etiquette

Online

Optical illusions—National Institute of Environmental Health Sciences http://kids.niehs.nih.gov/illusion/illusions.htm

Optical illusions—Wikipedia definition http://en.wikipedia.org/wiki/Optical_illusion

Lenses—Wikipedia definition http://en.wikipedia.org/wiki/Lens_(optics)

Sign Language Online www.handspeak.com

American Sign Language for Kids http://library.thinkquest.org/5875

Trompe-l'oeil—Wikipedia definition http://en.wikipedia.org/wiki/Trompe-l%27%C5%93il

Trompe l'Oeil Society of Artists www.trompeloeilsociety.com

Lesson Plan—Checkerboard Op Art www.princetonol.com/groups/iad/lessons/elem/patti-opart.htm

Optical Art—Wikipedia definition http://en.wikipedia.org/wiki/Op_art

Social Studies for Kids—Multiculturalism www.socialstudiesforkids.com/subjects/cultures.htm

Information—Cross-Cultural Etiquette www.culturecrossing.net