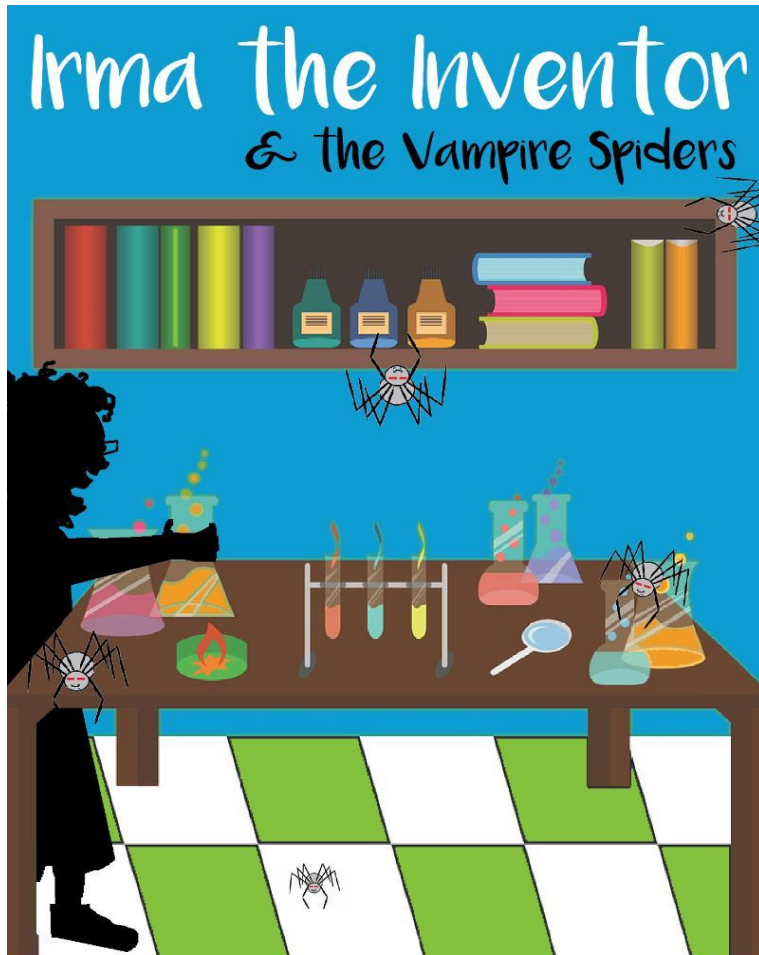


Teacher's Guide

Aligned to the Common Core Standards



Kimbra Kasch

Created by Kimbra Kasch and Megan Cassidy

For more resources,

go to www.kimkasch.com or www.5050press.com

NOTES TO THE TEACHER

These activities, worksheets and handouts are meant to supplement your students' reading of *IRMA THE INVENTOR AND THE VAMPIRE SPIDERS*, by Kimbra Kasch. Feel free to copy, disperse, and utilize these pages as you like and share them with colleagues.

In addition to being an author, I have taught courses in conjunction with Portland State University, the SCBWI and been a guest speaker at Warner Pacific College and the Write to Ignite Writer's Conference. It is my desire for you to use these resources as you read *IRMA THE INVENTOR AND THE VAMPIRE SPIDERS* with your students.

CREATIVE TEACHING

S.T.E.M. (or Science, Technology, Engineering, and Math) might not sound interesting to 3rd through 5th graders. But, if you tell a group of kids to play with Legos and then explain that they're using a form of engineering to create something, you'll probably catch their attention! That's my intention with *IRMA THE INVENTOR AND THE VAMPIRE SPIDERS*.

CREEPY CRAWLY SCIENCE

What kid isn't interested in robots? Robotics is simply science, technology, engineering, and math set into motion! The fun and exciting science of robotics is included throughout *IRMA THE INVENTOR AND THE VAMPIRE SPIDERS*.

The novel utilizes easy/fun ways to explain complicated disciplines and creative components...and some not so common ingredients, like spider silk. Believe me, these teeny-tiny creatures (spiders) create silk that can be used for breathtaking breakthroughs.

Your students might look at you and say...**Spiders . . . ?**

Yes. Spiders. I know you might think these eight-legged creatures sound more creepy than creative but did you know that spider silk is one of the strongest substances around? Well, it is. Scientists even call spider silk a "wonder material".

I'm talking about that sticky stuff you sometimes walk through in the garden that sends shivers running up your spine. Walking through a spider web immediately sends you searching for those little, unwelcome visitors which might be hiding in your hair. And, it's stronger than steel and super flexible.

For decades scientists have been searching for a convenient way to harvest that silk so they would be able to use huge quantities.

It's true. They have.

But, as you might expect, very few people want to become spider farmers simply to spend their afternoons walking up and down spider-infested rows to collect sticky webs dangling from trees, stuck to shrubs, or clinging to bushes.

So, what's the answer to this scientific [conundrum](#)?

Well, you might want to read this article to find out more about sustainable spider silk: <https://www.businessgreen.com/bg/news/3013893/scientists-develop-sustainable-spider-silk-in-green-materials-breakthrough> in BusinessGreen.com

And if you think that's interesting, you really might enjoy reading *Irma the Inventor and the Vampire Spiders* with your students.

THEMES

Irma's story is one that many middle school students can relate to. As you read this with your class, you may find it helpful to discuss the different themes that are present: bullying, standing up for oneself and others, self-confidence, friendship, forgiveness, and acceptance.

These bullying- awareness lesson plans from Sacramento State were created for students grades 4-6. http://www.csus.edu/cbm/bullying%20awareness%20lesson%20plan%204_6.pdf

BOOK SUMMARY

How many kids do you know who can build robotic spiders out of scrap metal, develop a substance that's stronger than steel, or crash a cyber-wizard's computer from an undetectable monitor? Well, that's Irma. Still, all she really wants is to make some friends and blend in for once, but no matter how hard she tries, Irma always seems to stand out.

This laugh-out-loud middle grade novel encourages readers to explore the STEM fields while never losing its sense of fun.

CHAPTERS 1-2

Vocabulary

Some vocabulary words from Chapters 1-2 are defined for you. Try to use the correct word to fill in the blank in the sentences below.

1. Overstimulation: Becoming overly excited because of everything going on around you
2. Evaporation: When water is heated until it turns to vapor (fog, mist, or steam)
3. Hyperthermic: When your body temperature is too high (like having a fever)
4. Robotics: The science of making robots
5. Meditation: When someone focuses their thinking in a quiet relaxing place
6. Crumpled: Crushed or collapsed
7. Research Implications: Possible ideas or results for future research, inventions, and discoveries
8. Monolithic: Huge or massive

1. Demarcus plans to study the science of _____ so he can invent a robot who will do his homework.
2. Julia was sick with the flu. Her doctor said that having a fever was a _____ reaction because her body temperature was high.
3. I watched the water boil until _____ made the water turn into steam.
4. Since Andrea was upset about losing her soccer game, she decided to go into a quiet room and practice _____ instead of getting mad at the other team.
5. The enormous stone statue was _____ and took up almost an entire city block!
6. Greg _____ up the piece of paper into a ball and tossed it in the trash.
7. Our discovery of a real live mermaid had huge _____ _____ for future discoveries at the bottom of the ocean.
8. My brother was playing the piano, my mother was blaring the TV, and I could hear my dad watching videos online all at the same time. My ears were buzzing from all the _____ .

Discussion Questions:

1. If you could make an insect, arachnid (spider) or another animal mechanical which one would you pick? Why?
2. What was Irma trying to teach the class?
3. Why did Irma's presentation go wrong?
4. What could she have done differently?
5. Would you have been afraid of the mechanical spiders, or would you have thought they were cool?
6. Why did Dilly stay behind to talk to Irma?
7. Why did Dilly say people were afraid of Irma?
8. If you knew Irma in real life, do you think you'd be afraid of her at first?

Art Project:

Draw a picture inspired by this chapter. You could draw Irma's vampire spiders or another type of robotic insect or animal!

Writing Project:

Irma was sad and felt misunderstood when she tried to teach the class about germs and no one listened to her lesson. Write about a time when you felt like people didn't understand or accept you. What happened? What did you do about it?

Science Project Ideas:

1. Plans for a simple robot made from an electric toothbrush can be found here: <http://www.sciencebuddies.org/hands-on-activities/toothbrush-bristlebot?from=Blog>
2. Irma talks about hyperthermic reactions and evaporation. Find a fun science project on hot water convection here: <https://www.homesciencetools.com/a/water-convection-science-project>
3. Irma's science project is about how germs spread. A simple activity for kids using glitter and hand lotion can be found here: <https://www.homesciencetools.com/a/germ-science-projects-for-elementary>

Answers to Vocabulary

1. Robotics
2. Hyperthermic

3. Evaporation
4. Meditation
5. Monolithic
6. Crumpled
7. Research implications
8. Overstimulation

CHAPTERS 3-5

Vocabulary

Some vocabulary words from Chapters 3-5 are defined for you. Try to use the correct word to fill in the blank in the sentences below.

1. Shuffling: Walking away while dragging your feet
2. Stammer: Speak with breaks and pauses
3. Sneer: Laugh in a mean way
4. Torpedo: An explosive device on a submarine
5. Sanity: Having a clear mind and good judgment
6. Corridors: Hallways
7. Scorn: Reject or make fun of others
8. Cylindrical: Shaped like a cylinder or tube

1. Jane wants to mail her artwork in a _____ package.
2. Julia was standing up in front of the class talking about her vacation, when she started to _____.
3. Tim laughed when Andrea showed _____ for the other students.
4. Becky ran down the _____ to math class so she wouldn't be late for Mr. Day's class.
5. When Rolando saw the spiders begin to move, he questioned his own _____.
6. Greg was reading as he began _____ toward P.E.
7. Hayley had a wicked _____ on her face.
8. We were watching the show when a _____ shot through the water.

Discussion Questions

1. Why was Kate's mother angry?
2. Why do you think Kate bullies people like Irma and Dilly? Do you think her life at home might have something to do with her actions at school?
3. What did Dilly do when Kate was bullying and teasing Irma?

4. Have you ever seen anyone being bullied? What did you do?
5. Why do you think Ms. Terry got so upset when Kate used the word “fat”?
6. Irma has a pen-o-candy. If you could invent something fun to put on the end of your pen or pencil, what would it be?
7. Why did Kate try to cheat off of Irma’s test?
8. What would you do if someone was trying to cheat off of your test?

Art Project:

Draw a picture of Irma and her pen-o-candy.

Writing Project:

Have you ever made fun of someone the way Kate made fun of Irma? Write about a time when you teased someone or made fun of them. Explain how you made them feel and describe what you could do differently next time.

Science Project:

Irma invents a pen filled with candy, but there are lots more fun things you can do with pens! Check out this spinning pen magnet experiment with the children in your home or classroom!

<http://frugalfun4boys.com/2016/02/10/spinning-pen-magnet-science-experiment/>

Cooking Project:

Or, if you’d rather write with candy, instead of just eating it, you can put melted chocolate into a bag and write or make designs with the chocolate before it cools. This video shows you more:

<http://themom100.com/2012/03/writing-with-melted-chocolate/>

Answers to Vocabulary

1. Cylindrical
2. Stammer
3. Scorn
4. Corridor
5. Sanity
6. Shuffling
7. Sneer
8. Torpedo

CHAPTER 6

Vocabulary

Some vocabulary words from Chapter 6 are defined for you. Try to use the correct word to fill in the blank in the sentences below.

1. Teetering: To move or sway unsteadily or unsurely; totter
2. Momentum: The force or speed of movement
3. Propel: To drive forward at a quick pace
4. Gawked: Stared stupidly
5. Sprawled: Stretched or spread out in an ungraceful way
6. Sputter: Stumble over words
7. Spew: Puke! (eww)
8. Rummaging: to search through something like a backpack or garbage can

1. Jared started to speak but could only _____ strange sounds.
2. Staring with an open mouth, Hayley _____ out the window at the parade.
3. The _____ of the car was too fast to see who was sitting inside.
4. Becky tried to walk across a tightrope, but began _____ unsteadily and fell into the net below.
5. Since she was in a hurry to finish her shopping, Nel had to drive the cart and _____ it quickly around the store.
6. The cat was stretched out, _____ on the ledge.
7. Jessica was _____ through her backpack, trying to find her homework.
8. Greg was so sick he had to _____ up his hotdog.

Discussion Questions

1. Why would Tommy think the gel Irma gave Jared was poisonous?
2. Why do you think people might be afraid of Irma? Do you think they might be jealous of her ability to create robots? Would you want to be able to make your own robot?
3. How would you feel if someone thought you were trying to poison someone?
4. What would you do if someone called you a name like Irmanstein or Irm the Worm?
5. Would you say something if someone called you a mad scientist?
6. Why do you think Mrs. Day wanted Irma to walk with Jared to the office?
7. Why do you think Mrs. Day didn't want Kate to walk Jared to the office?

Art Project:

Draw a picture of Jared with some Spicy-Ice on his eyes.

Writing Project:

Write a story about a time you have been hurt and someone has come to help you or given you something that made you feel better. Be sure to include something about how you felt about the person who helped you.

Science Project:

Irma invents a Spicy-Ice gel that is soothing to sore eyes but there are a lot of things you can do right at home with common ingredients to create your own homemade soothing gel.

Here's a quick recipe you can make to prepare your own soothing gel for eyes.



RECIPE:

2 Tablespoons of Aloe Vera (preferably organic/fresh aloe vera)

2 cucumbers (juiced)

10 cotton eye pads

1 gallon-size zip-lock bag

DIRECTIONS:

Scrape out the gel from an aloe vera leaf (or use store-bought aloe vera)

Juice two cucumbers

Mix the juice and the aloe vera together, then saturate the eye pads and lay them out in the zip-lock bag.

Put the baggie in the freezer.

When you need a soothing treatment for your eyes, take out two off the eye pads from the freezer, let them “rest” for five minutes then place over eyes for 10-15 minutes.

Here’s a YouTube video to show you how to make it: <https://youtu.be/RLQKfYBGE64>

Answers to Vocabulary

1. Sputter
2. Gawked
3. Momentum
4. Sprawled
5. Propel
6. Teetering
7. Rummaging
8. Spew

CHAPTER 7

Vocabulary

Use the context clues in the sentences to match the **vocabulary word** to its correct synonym.

1. I took **remedial** math and had a tutor who helped me with difficult problems.
2. When Kim made jewelry, she connected pieces of metal and **welded** them together.
3. The water ran through a series of pipes and **conduits** and drained into a ditch.
4. The class caterpillars transformed and **converted** into butterflies.
5. Caleb's mechanical car trembled and **shimmied** across the floor.
6. As soon as Demetri looked into the crystal ball, he was **mesmerized** and couldn't look away.
7. As soon as Ava broke her arm, she began to scream and **holler** for help.
8. **Worming** his way through the crowd, Frank twisted and wriggled his body, trying to get to the front of the line.
9. Sometimes, people think my identical twin and I are **clones** since we look like copies of each other!

Vocabulary to Choose From:

- | | |
|---------------|---------------|
| A. Tubes | F. Duplicates |
| B. Helpful | G. Yell |
| C. Squirming | H. Joined |
| D. Shook | I. Changed |
| E. Fascinated | |

Science Experiment

Irma makes a robotic snake “Samantha” out of left-over scraps of metal. What could you make with common things found around the house? Do you have magnets you could use to create something? Or what about doing an experiment using magnets?

Here’s one fun science experiment you can do with magnets!

Fun with Magnets – Gravity Activity with Buggy and Buddy:

<http://buggyandbuddy.com/gravity/>



Fun Engineering Project:

Did you know that when a building is created, it involves the use of science and engineering? Well it does. A building might fall down if it doesn’t use the correct structural balance.

You can practice a little engineering too by creating a structure using something as simple as Legos. Did you know that Legos are also referred to as “bricks”? Before you do the Engineering Project, you might want to learn a little “Brick” vocabulary first.

“Brick” vocabulary:

<https://rk-hal.wikispaces.com/file/view/Lego+Vocabulary.pdf>

Check out this website for a few fun Lego building ideas from Brick Artist Nathan Sawaya:

<https://ideas.lego.com/projects/3417c8b3-85f8-4f6e-b0cf-e95310504cbb>

Now take some Legos and build 3 different structures.

- 1) The first structure should be square shaped, using the same size on the top of the structure as on the bottom.
- 2) The second structure should be larger on the bottom than on the top.
- 3) The third structure should be very small on the bottom and large on the top.

Discussion Questions:

- 1) What did you learn about the need to “balance” structures, from building these three different shaped projects?
- 2) What do you think is the strongest shape for a building?
- 3) What is the weakest shape for a building? What would happen if builders built buildings using the weakest shape? Why do you think engineering is used in building?

Vocabulary Answers: 1B, 2H, 3A, 4I, 5D, 6E, 7G, 8C, 9F

CHAPTER 8

Vocabulary

Use the context clues in the sentences to match the vocabulary word to its correct synonym.

1. Just before the storm, the sky became a murky gray as the sky filled with clouds.
2. After the rain, Jim had to put on boots to walk through the dirty sludge outside.
3. When Laurel was stung by bees, huge red welts began swelling up on her injured leg.
4. Gil took his fishing rod out of the closet and noticed the shaft was broken.
5. Maggie made pudding, but it was too sticky and gelatinous to eat.
6. The dog barked and sarled at the burglar until he ran away from the house.
7. Olivia was so furious, she stomped her feet and stormed out of the room.
8. Chuck's skin broke out in a blotchy, spotted rash when he touched poison ivy.

Vocabulary to Choose From:

- | | |
|-------------|------------|
| A. Speckled | E. Wounds |
| B. Growled | F. Goopy |
| C. Mud | G. Marched |
| D. Pole | H. Gloomy |

Science Project

There are many things that might seem bad for you that can actually be good, if they are used correctly, like stinging nettles.



Stinging nettle can create a stinging sensation and cause itchy, painful skin when it is touched by humans or animals but the plant also can be used for medicine, food, and even clothing. It is rich in vitamins A and C, iron, potassium, manganese, and calcium but must be prepared correctly. When it is, it has a taste similar to spinach mixed with cucumbers. It can also be prepared as a tea.



It's hard to believe that something that can cause such pain, itching, blisters and welts can also be enjoyed as a cup of tea.



But it's true. And, if you want to read more about the beneficial qualities of Stinging Nettle Tea, you should read this article: <http://www.livestrong.com/article/440537-nettle-tea-benefits-and-warnings/>

Research other plants poisonous to people or animals. See if you can find some plants that are both good and bad and describe the ways they must be prepared to gain the beneficial qualities of the plant.

Discussion Questions:

1. Do you think Katie is smart? Why do you think she doesn't get good grades in school?
2. Could Kate have used her knowledge about plants for good rather than using it to harass Irma?
3. Why do you think Kate chose a plant to torment Irma?
4. Do you think Irma should have been nicer to Kate?
5. What did Irma say that made Kate angry?
6. Do you think Kate hurts Irma because she feels stupid and dumb?
7. If Kate felt better about herself, would she need to bully Irma?
8. Who was the bully in this situation? Irma or Kate?
9. What do you say when someone is bullying you?
10. How could you stand up to a bully without being mean to them?

Vocabulary Answers: 1H, 2C, 3E, 4D, 5F, 6B, 7G, 8A

CHAPTERS 9-10

Vocabulary

Use **context clues** to write in the correct vocabulary word for each sentence.

Word Bank: Mutated, Monstrous, Distracted, Jeered, Expression, Structural, Spearheading, Stench, Sinister, Locks

1. Corey **couldn't concentrate** on his homework because he was _____ by the television and his cell phone.
2. I once had a _____ ice cream sundae that was **so large**, it had twenty scoops of ice cream and was **big** enough for my entire family!
3. The virus **was originally** harmless, but then it **changed** and _____ into something much more deadly.
4. Jeannette didn't like her **hair**, so she went to the salon and cut off her long _____.
5. Andy **led** his basketball team to victory, and was **put in charge** of **organizing** and _____ a new practice schedule.
6. When I poked my head into the kitchen and **smelled** the **rotting** garbage in the corner, the **disgusting** _____ was overwhelming.
7. As the wrestler entered the ring, the crowd **booed** and _____ at him as loudly as they had applauded his opponent.
8. After seeing her birthday present, Madison's mouth hung open, and she had a shocked _____ on her **face**.
9. The **evil villain** came up with a _____ plan to take over the world.
10. The _____ integrity of the **building** was in **physical** danger when an earthquake damaged its **foundation**.

Discussion Questions:

1. Do you think that every test is a good indicator of what a person knows?
2. Can some people learn better by reading and others learn better by seeing a project?
3. What could you do to help someone feel better about a bad grade? What can you do if someone laughs or makes fun of someone because of a grade?
4. Have you ever received a grade that made you feel bad?
5. Kate received a bad grade on a test. Does one grade show whether someone is smart?
6. Can people have a bad day and do poorly on a test?
7. What could have been some reasons Kate didn't do well on her test?
8. What could you do to make sure you have the best chance of doing well on test days?

Art Project

Draw a picture of what you imagine Irma's clubhouse to look like. Now, draw another picture of what you would want your own clubhouse to look like?

Science Project

Irma's mother used Garden gold on her plants to help them grow.

A lot of gardeners compost leftover food to create a great garden fertilizer. But you could also use water out of your fish tank! If you'd like to read more about homemade fertilizers, you should read this article: <http://www.typodermic.com/garden/fertilizer.html>

Did you know you could use common ingredients found around your home to create your own "fertilizer"? Well you can. All you need is some vinegar! Here is one homemade garden fertilizer recipe:

INGREDIENTS:

1 tablespoon of vinegar

1 gallon of water

DIRECTIONS:

1. An azalea is an acid-loving plant. First, take two planters filled with soil.
2. Next, plant azalea seeds in each planter. Place the seeds about 2 inches apart.
3. Every day, water both planters. Make sure the soil never dries out and never becomes too soggy from too much water.
4. On one of the planters, also spray some of the fertilizer mixture.

5. The seeds will grow in approximately 4-8 weeks. In a notebook, write down your scientific observations. Does the regular planter grow faster, or does the planter with the fertilizer grow faster? Which planter produces more flowers? Which planter has bigger flower blossoms?

Note: If you want a shorter science project, you can start with azalea flowers instead of seeds and observe which planter's flowers grow larger or fuller!

Vocabulary Answers:

1. Distracted
2. Monstrous
3. Mutated
4. Locks
5. Spearheading
6. Stench
7. Jeered
8. Expression
9. Sinister
10. Structural

CHAPTERS 11-14

Did you know that cooking is science simply made with food? Every baking project is a chemistry science experiment . . . you can eat. Irma makes creatures out of scraps of metal but you can also create creates using a simple cake mix. Here's one example of a dragon fly you can make with cupcakes and a loaf of bread.



If you want to read how to make this dragonfly, read this:
<https://kimkasch.blogspot.com/2009/02/ez-cooking-craft-for-kids.html>

You can also make creatures, just like Irma, by assembling different crafting materials just like this spider:



If you want to see how to build this giant spider with common things you can get at a craft store, check out this blogpost:

<https://kimkasch.blogspot.com/2014/10/diy-spider-garden-art-for-halloween.html>

Or you could make a creature using simple fabric and beads, like this spider hat:



If you'd like to read more about this spider hat, you can read this article:

<https://kimkasch.blogspot.com/2011/10/mad-hattress.html>

Discussion Questions:

1. What did Irma put in Kate's shampoo?
2. Do you think Irma could have acted differently to become friends with Kate?
3. What did Irma do wrong in her "war" with Kate?
4. What did Kate do wrong in the war?
5. Which girl should have gotten in trouble with the principal?
6. What did Kate do to try to win people's votes for the science fair?
7. What is bribery? Why is it wrong? How can it hurt people?
8. If you were doing a science fair project, what would you want your project to be?

Vocabulary:

Each of the vocabulary words for these chapters is defined below. Write a sentence using each word.

1. Porcelain: China, ceramics, or pottery
2. Glee: Happiness and joy
3. Wakeboarding: Riding on a short board like a surfboard while being pulled by a boat
4. Spectacular: Fantastic and wonderful
5. Bribery: Illegally offering something like money or gifts to gain an advantage (like someone's vote or a better grade)
6. Swarm: A moving crowd
7. Persistent: Untiring and never ending

CHAPTER 15



Science Project:

Irma had a spider farm. That's pretty unusual! However, there are a lot of people who keep ant farms. Some fun facts about ants are below!

Ants are insects, which are different from spiders, which are arachnids. Arachnids have eight legs, while ants only have six! One of the most common ants in North America is the Odorous House Ant. Odorous means smelly, and these ants smell like rotting blue cheese and old coconuts. Talk about a bad stench!

Ants are a little bit like bees because they have a queen. The queen ant gives birth to all the ants in the colony. An ant colony is a group of ants that live and work together a little like a factory. Younger ants take care of the queen and her babies. Older ants go outside to gather food and defend the nest against enemies.

Ants can lift up to 50 times their body weight and can live up to 30 years! There are over 12,000 different types of ant species in the world today. Learn more about the mighty ant by visiting this website: <http://antark.net/ant-facts/>

If you want to make your own ant farm like Irma's spider farm, watch this video:

https://www.youtube.com/watch?v=MHCGRt_MRwY

Or, if you have unwanted ants in your home, visit this website and learn how to make an easy ant repellent. You need essential oils and help from a grownup: <https://www.diynatural.com/natural-ant-repellent-spray/>

Art Project:

Draw a picture inspired by this chapter. You could draw an ant farm, a spider farm, or a robotic animal inspired by Irma's robotic vampire spiders!

Writing Project:

Irma had a spider farm. If you could have a farm, what type would it be? Would you keep spiders and ants, horses, cows, pigs, chickens, or something else like dinosaurs or elephants? Would you have animals on your farm, or would you grow food? Imagine that you can have any kind of farm you want. Then, write a few paragraphs describing your farm and what your life would be like there.

CHAPTER 16

Have you ever looked at a house and thought it might be haunted? What was it about the house that made you think that? Was it the shape of the house or where it sat on the land? Or was it because the house needed repairs?



Art Project: Draw a picture of what you think a haunted house might look like. Now, draw a picture of the same house but don't make it look haunted. What is the difference?

Writing Project: Write a story about a haunted house. Tell something about the history of the house. How did it become haunted?

Discussion Questions:

1. Are houses really haunted, or do they just fall apart because people haven't taken care of them?
2. When people can't take care of their houses, what can we do to help them? (Think about things like mowing the lawn or helping with painting)
3. What type of clubhouse does Irma's school have?
4. Why does Irma want to fix the clubhouse?
5. Have you ever had a treehouse or a clubhouse? What type would you like to have?

CHAPTERS 17-19

Spiders are interesting. Have you ever read about spider silk and its amazing properties?

Reading Assignments:

Here are some fun facts about spiders:

<http://www.sciencekids.co.nz/sciencefacts/animals/spider.html>

Scientists have created a substance that's stronger than steel. Yes. It's spider silk. You can read about it, here: <http://earthmysterynews.com/2017/08/12/scientists-have-created-a-synthetic-spider-silk-that-is-stronger-than-steel/>

Science and Art Project:

Do research on spiders and spider silk then make a poster showing what you've learned from your research.

OR

Do a fun activity where you can make a spider web between two chairs and learn about how vibrations move from one side to another! Read how here: <http://buggyandbuddy.com/spider-web-science-activity-for-kids/>

Writing Assignment:

A list of insects and arachnids is below. Choose one of the crawling critters and do some research. What do they eat? Where do they live? What interesting facts can you find about them? Write a page on what you found!

Arachnids: tick, scorpion, garden spider, water spider, crab spider, tarantula, mite

Insects: Dragonfly, bow-winged grasshopper, water strider, atlas moth, lady bug, termite

Discussion Questions:

1. What happened at the science fair?
2. What did Kate do to try to win?
3. Why do you think Kate cheated?
4. Have you ever cheated, even at a fun game with your family or friends?
5. Why do you think you cheated?
6. Why is cheating wrong?
7. What could Kate have done differently?
8. What did Irma do for her science fair project?
9. How did Dilly help Irma?
10. Which do you think was more important to Dilly: becoming friends with Irma or winning the science fair?
11. Is winning important, or is it important to just participate and have fun?

CHAPTERS 20-23

Chapter 20 is called “The Proof.” Did you know that the word “proof” is also used when making bread? A baker kneads bread and then shapes it into a loaf. Then, before baking, the bread rises. This rise is called the proof!

Science and Cooking Project:

Science and cooking are sometimes related! In science experiments, an inventor or scientist might take two chemicals and try to convert or change them into something new. In cooking, fermentation happens when food is changed or “converted” into something different.

A couple of fermented foods are vinegar, olives, and cheese. We also use fermentation on beans, grains, vegetables, fruit, honey, dairy and more.

Kombucha or what some people call “tea mushroom” is fermented, sweetened black or green tea with supposed health benefits.

We can also use fermentation to make cider, alcohol and even yogurt or bread.

If you follow the directions when baking, everything will be just fine. But, if you don’t pay attention, or if you don’t follow the instructions, things don’t always turn out correctly. Bread is a perfect example.



Here’s the recipe for super-simple Easy Bake Bread.

RECIPE:

3 ½ cups flour

2 cups warm water

2 tablespoons (melted) butter (salted-that way you don't have to buy unsalted butter-and who keeps that on hand, and you don't have to measure out a tablespoon of salt-EZ tip)

1 package of active dry yeast

DIRECTIONS:

Take the warm water and add the active yeast. Let it sit while you melt your butter in the microwave. Then pour the yeast-water and melted butter into a bowl and mix, slowly adding in the flour until you have a ball of dough. Then take your ball of dough and put it in a pre-greased bowl and cover for ½ hour to let rise.

If you get the yeast too hot or too cold, you will get a bread fail (just like the one in the picture on the right above).

Writing Assignment: Irma tries to help her school by fixing the clubhouse. Write a story about something nice someone you know did to help another person. It doesn't have to be a big thing like Irma saving her entire school. Even small things make people feel better.

Discussion Questions:

1. Why do you think the students were so quick to believe Kate's story?
2. Why didn't people believe Irma right away?
3. Why does Irma have difficulty making friends? What could she do differently to make friends more easily?
4. Why do you think Irma and Dilly became friends?
5. What happened with the treehouse?
6. How did people change toward Irma after she saved the school treehouse?
7. Why did Kate decide she wanted to be a writer? What made her change?
8. Do you think Kate was a villain, or was she just misunderstood?
9. Who do you think you're most like in this story? Kate, Dilly, Irma, or Jared?

CHAPTER 24-25

Writing Assignment:

Irma had to make some difficult decisions in this book. Read the following situation with your partner. Decide which response you think is the BEST and write WHY in the space that follows. Be prepared to share your choice with the class.

SITUATION: You decide you want to try out for a school play at school. You're really excited about it, but nervous, too. When you tell your best friend, he/she gets upset and says you shouldn't do it. You have a fight about it and don't speak to each other. What do you do?

- A. Forget about the play because your friendship is the most important thing.
- B. Keep to your plan because if your friend is a true friend, s/he will see how important this is to you and forget about the reason s/he didn't want you to try out.
- C. Compromise; ask your friend if there is something s/he would like to do with you, maybe try out for a sport, try out for a choir, or try something else together.

Discuss your answers with your partner. Which one did you choose? Why do you think your answer would be the best plan?

BULLYING

Because Irma finishes her homework and tests first she becomes the target of taunts and threats of a school bully.

Approximately 13 million kids in America will experience some form of bullying this year. Bullying happens in lots of different ways. It can be pushing, shoving, or calling names. Sometimes bullying is done on social media. Words can hurt people, especially when they are shared with other people. Bullies can use actions such as pushing, shoving, and hitting but they can also use words like weapons. Bullying can be done in lots of ways. Some bullies use Twitter, Snapchat, and Facebook to spread their hurtfulness.

Discussion Questions: Give different examples of bullying.

- What are some of the reasons kids are bullied?
- What could be some of the reasons a kid becomes a bully?
- What is one way you could help to "fight" bullying in your school?