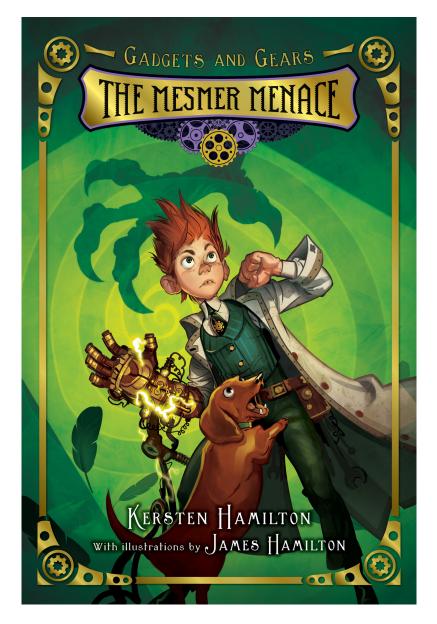
A Teacher's Guide

The Mesmer Menace

By Kersten Hamilton Illustrated by James Hamilton



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Kersten Hamilton is the author of several picture books and many novels, including the acclaimed YA paranormal trilogy *The Goblin Wars*. When she's not writing, she hunts dinosaurs in the deserts and badlands near Albuquerque, New Mexico, where she lives. For more about Kersten, please visit <u>www.kerstenhamilton.com</u>.



James Hamilton is an artist and designer who lives in Albuquerque, New Mexico. This is his first book.



About the Creators of This Guide

Chris Coppolillo is an educator with experience teaching children and adults of all ages. Her Teacher Guides focus on realistic classroom application and are designed with the whole child and the competent, busy teacher in mind. Chris has lived and taught in California, New York and East Africa. She now lives with her family in Bozeman, Montana. Moriah Ellig is a graphic designer living in Montana where she enjoys mentoring kids and hiking. This is Chris and Moriah's first project together. To learn more about Moriah or Chris please visit <u>Christina.Coppolillo.com</u>

The activities in this Guide were created with 4th and 5th graders in mind and are linked to current learning standards. For detailed information on those standards, and for suggestions on how to use this Guide, please see page 17.



There are many ways to read and use *Gadgets and Gears: The Mesmer Menace* in your classroom. Choose the method that works best for you:

- As a read-aloud with your whole class: Read just for fun or as part of a unit on simple and complex machines, alternative energy, inventors and inventions, scientific inquiry or Theodore Roosevelt. Read a few chapters at a time and support the reading with appropriate activities found in this Guide.
- As a book club-style book for a small group: Secure multiple copies and have one of your groups read *The Mesmer Menace* as their reading selection. Again, choose activities to supplement the group's reading.
- As an individual reading experience: Purchase a class set of *The Mesmer Menace*. Students can read assigned segments on their own and/or you can do some whole-class round-robin reading. Select activities from the Guide for your class to do as you make your way through our story.

Each student should create a *Mesmer Menace* Notebook to be used while reading. Students will want to keep lists of the following things as they read:

- Challenging vocabulary words
- Historical figures, events, inventions and discoveries
- Various "gears and gadgets" that exist at the Inn (Dust Bunnies, Gyrating Generator, etc)
- "Dog lines" that help us know Noodles is the narrator

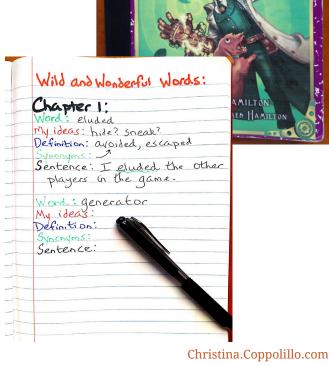
Explanations of how to use these lists are included in the following activities.

It can be helpful (and fun!) to assign Reading Roles, no matter which grouping method you are using with this book. Consider the following roles for students, or groups of students, and see the links below for more ideas:

• Discussion Director, Historian, Word Wizard, Researcher, Literary Luminary, Summarizer

<u>Reading Circle Roles</u> <u>Literature Circle Roles</u> <u>Literature Circle Role Descriptions</u>

Written by: Christina Coppolillo





Wild & Wonderful Words!

One of the fun things about reading *The Mesmer Menace* is the varied and challenging vocabulary your students will encounter.

Our author offers definitions for some words that may be unfamiliar: "A 'conundrum' is a difficult problem or question. The kind the Kennewicketts love best." (p.7)

In addition to these helpful explanations, it will be useful to employ some of the following strategies as students read. These can be used effectively regardless of which reading method you've chosen from Activity #1.

See the Master List of challenging vocabulary words (by chapter) to be used with these strategies.

- Have students keep a list of tricky words and phrases, chapter by chapter, in their *Mesmer Menace* Notebooks. You can use your Master List to prompt. This can be done individually or by a couple of designated "Word Wizards" from each group or from your whole class. It is fun for students to use contextual reading, life experience and small-group discussion to make educated guesses about what words mean. Students can then sleuth official definitions via hard copy or electronic dictionaries.
- Extend the above strategy by asking Word Wizards to include a short list of synonyms for each tricky word.
- Choose words from the included Charades List (words taken from the Master List that work well for this game), pick one actor and have them choose a word to act out. You can also just pick a word from the list and whisper it in the actor's ear. This is a great thing to do for five or ten minutes as a warm-up to your reading time or as a transition activity. It can be helpful to write a list of word choices on the board from which the audience can refer when they are guessing.
- Create crosswords and other word games by going to <u>PuzzleFast</u> or one of the many other online puzzle-making sites and plugging in a couple of chapters' worth of words and clues. A sample is included here for Chapters 1-3.



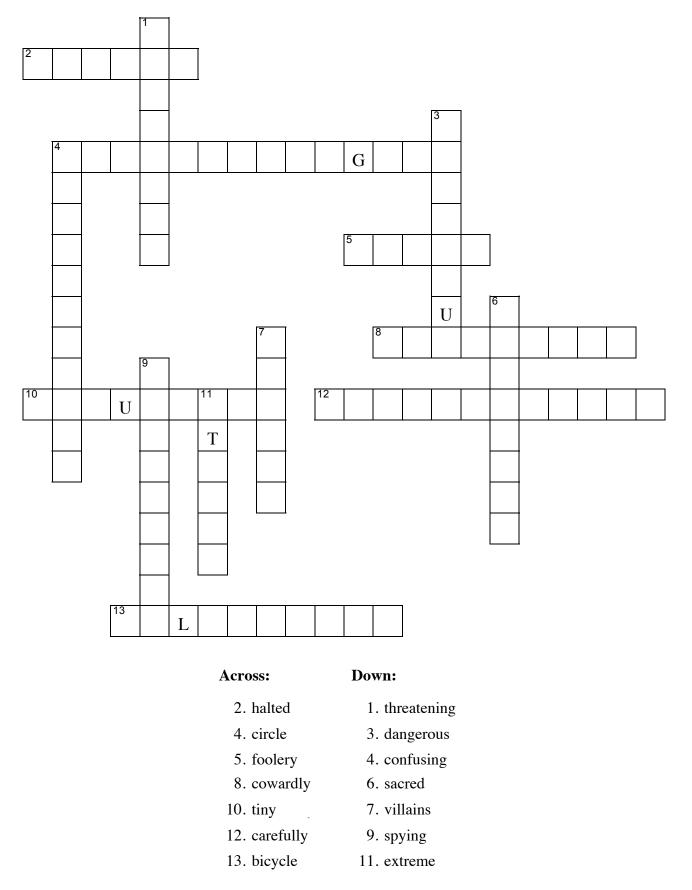
Master Vocab List

Chapter 1: mayhem perusing retractable eluded perilous profundity gyrating generator hobo spectacles utmost folly fancier	Chapter 2: clockwork corset dirigibles meticulously discretion velocipede trestle rotund aspirations Big Top ambulatory dastardly unscrupulous skullduggery animal magnetism hypnotism confounding mesmerize fiends foiled	Chapter 3: corsair hallowed Kremlin espionage circumnavigating atmospheric electrons precipice receptor minuscule subsequent vendors conspiracy theories applaud your sentiments menacing	Chapter 4: don conservatories subsection reams deduction infestation	Chapter 5: subterranean perilous pursuit plethora flywheels apparatus alchemist condensation chuffed haberdashery repulses gauntlets voltage vats automata
Chapter 6: abyss whirligig	Chapter 7: spyglass piratical air belied fobs plumb bobs competent crimson parasol baleful firmament	Chapter 8: dapper dandy chronometer symposiums	Chapter 9: assumed an academic pose orb diminutive	Chapter 10: banish handbill immunity heiress financier socialite consternation loath transfixed purports praiseworthy
Chapter 11: scullery maid susceptible diligently eloquent prone meddlesome cunningly decoy willy-nilly miscreant cacophony cutlery drafting	mechanism baleful monocle abominably earnest self-consciously addled delusions of grandeur singular nearsighted pointedly	Chapter 12: buffeted buying time ingenious	Chapter 13: peril imply allies ludicrous mind transference comrades minions ensued eluded unwittingly queried tyrant despotic diplomat humbly	Chapter 14: sufficient resourceful foliage

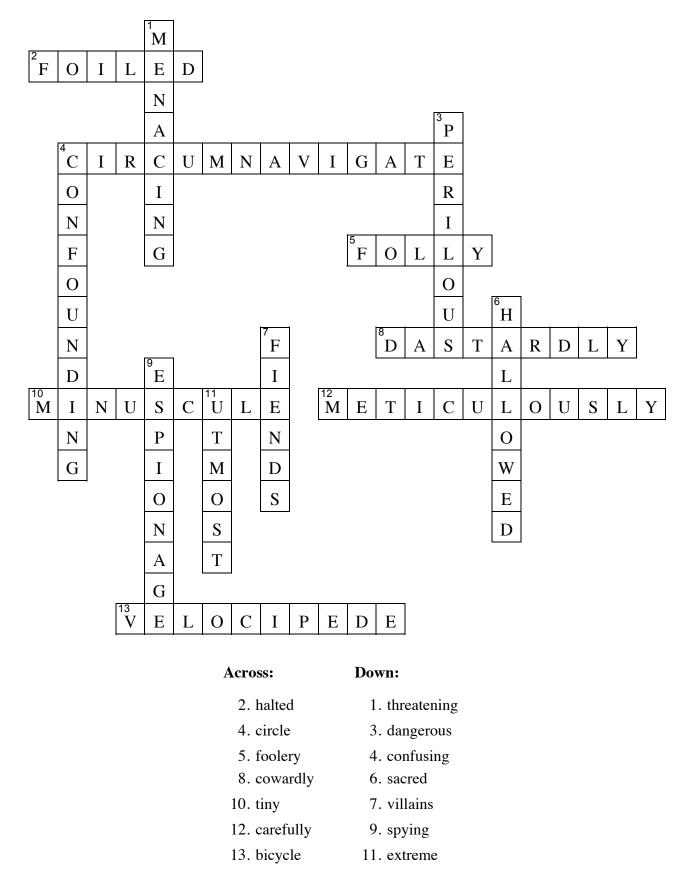
Charades List

spectacles	fancier	corset	dirigible	velocipede
rotund	Big Top	hypnotism	corsair	circumnavigate
precipice	miniscule	menacing	don	infestation
subterranean	haberdasher	whirligig	spyglass	fob
parasol	orb	transfixed	addled	foliage

Mesmer Menace: Chapters 1-3



Mesmer Menace: Chapters 1-3





What is a narrator? A narrator is the one telling the story.

The Mesmer Menace has a very unique narrator! Noodles the dog tells us the story, which means that right from the start we get lines like this one: "I should have smelled it. Mayhem, most feathered and fowl, was coming. I should have smelled it. But I didn't." (p.1) This is before we know that Noodles is a dog, but the reference to smelling is our first clue. Our author, Ms. Hamilton, continues throughout the book to give Noodles "dog lines" so that we, as readers, stay connected to the fun and helpful fact that he is a dog.

Keep students keep eyes open for these "dog lines" and make a note of them in their *Mesmer Menace* Notebooks.

Who or what can be a narrator?

Using a commonly known story (or one being used currently in your classroom as a readaloud or from a book group), have students write part of the story - a chapter, a couple of paragraphs, whatever is appropriate for your kiddos - with a new and unusual narrator. Remind them to give the appropriate characteristics and language to their narrator to help the reader know who or what the narrator is! You may want to try one as a whole class first.

Examples:

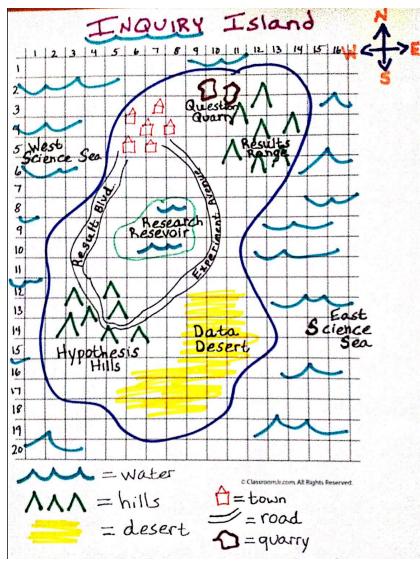
- Tell the story of Little Red Riding Hood with her basket of goodies as the narrator.
- Tell the story of the Three Little Pigs and the Big Bad Wolf from the perspective of a bird flying overhead.
- Exploring narration through poetry is another fun option!



The author of our story uses themed place names like Gasket Gully and Grommet Street. This is a clever and fun way to weave central themes through a story.

Have each student (or small group of students) identify a theme from our book: inventors or inventions, alternative energy, gadgets and machines, bravery, science experiments. Alternatively, you can assign themes to match other current topics of study.

Now have students create a map of an imaginary place with mountains, rivers, streets, buildings and parks with names inspired by their chosen theme. Graph paper makes for nice neat maps.



This is a great time to review the components of a good map:

- title
- compass rose
- scale
- grid
 - key

The maps can be accompanied by short stories if appropriate and can be displayed or presented by individuals or small groups.



The Most Important Questions

Wally's parents are scientists. They value science as a way of answering questions and solving problems, asking new questions, and increasing understanding of the world and how it works.

Calypso thinks the most important question a scientist can ask is, **"Is this experiment elegant?"** (p.12) Oliver believes the most important question is, **"What if?"** (p.13) How do these two questions help Calypso and Oliver do "good science"?

Discussion may include the following:

What is good science?

Solid scientific inquiry includes:

- 1. Research
- 2. Constructing a hypothesis (if/then)
- 3. Testing/experimenting and collecting data
- 4. Analyzing the results and drawing conclusions
- 5. If the hypothesis was true then making sure it is repeatable and reporting the results
- 6. If it was false, or only partially true, then thinking and trying again with a modified hypothesis.

Scientific Theory Flow Chart

An "elegant" experiment will be well-planned, organized and repeatable.

Asking "what if" helps a scientist **generate new ideas** so that there is no such thing as a failed experiment – we **learn even from our "failures"!**



Ask your students what they think is the **most important question** a scientist can ask?

Post the answers to this question, along with those of Calypso and Oliver, in a prominent place in your classroom and refer to them when conducting science work with your students!

What is the most important question a scientist can ask? Is it elegant? - Calypso What if? - Oliver Is there evidence? - Alice Is it repeatable? - Will Why? - Nina Why else?-Henry Is there a simpler explanation -Pete

Extension Activity:

Using your students' own interests or other topics of study, ask, **"What is the most important question one would ask as a** _____?" (chef, writer, engineer, artist, race car driver, architect, software designer, pharmacist)

Share, argue. **Why** do you believe what you do? This can be an oral or written activity. Use what works and fits for you and your students.

This is also a good time to talk to your kids about <u>STEM Careers</u>. Scrolling to the bottom of this link will introduce you and your students to some women in highly successful and interesting STEM careers. What are the most important questions they ask?



President Roosevelt tells Wally, **"The boy who is going to make a great man must not make up his mind to merely overcome a thousand obstacles, but to win in spite of a thousand repulses and defeats!"**. (p.39)

Many of history's greatest achievements are a result of perseverance, even when things get hard or dull. As Noodles says, "Certain scientific moments are not exactly the stuff excitement is made of." (p.56) Even the **greatest scientists have faced boredom**, **frustration and setbacks**. But the scientists who have really achieved something did not give up.

Examples of prominent people in our history who persevered: They Did Not Give Up

Assign a **short interview** to each student or group of students. They can interview a parent, someone in the school, a scientist or other adult in the larger community. Have students create interview questions that get at the question of perseverance. If the focus is on scientists, help your students include questions that explore the role of "sticking with it" in scientific inquiry.

For example:

- What is a challenge you have had to overcome in your life or career?
- What things came up in your work/life/experiment that were unexpected and how did you deal with them?
- What's an example of a challenge or "failure" that you turned into an opportunity or success?
- What were the things that helped you persevere?
- What were the rewards of not giving up?

Students can give **oral presentations** or write **short papers** that can be made into a **class book or bulletin board** titled "Perseverance".





A Gadgets & Gears Timeline

The Mesmer Menace is set in 1902 - a very different time than the one in which we live. As you read, **create a class timeline** to help students **place our story** (and some of its prominent figures, events, inventions and discoveries) in history.

Using their *Gadgets and Gears* Notebooks, have your students **keep a list** of things to put on a class timeline or give the role Historian to one or several students and charge them with keeping this list. These lists can serve as the resource for building the timelines and, when appropriate, individuals and/or small groups can use the timeline topics as the basis for **small research projects and presentations**.

Cutting long butcher paper in half length-wise makes for a good hard-copy timeline as does taping regular 8x11 sheets together. There are also several good online tools to help kids generate timelines that can then be printed out: <u>Preceden Timelines</u> <u>ReadWriteThink Timelines</u>

Below is a list of possible people and events from our story to consider including in your *Gadgets and Gears* Timeline. Students may also **research the historical figures** below and **include their most important inventions or contributions,** or create a themed timeline that shows the history of flight, the development of energy sources by humans or prominent inventions and scientific discoveries. A couple of good resources are: <u>Inventions Timeline</u> <u>Scientific Discoveries Timeline</u>

- Franz Mesmer : 1734-1815
- Edgar Allen Poe: 1809-1849
- Jules Verne: 1828-1905
- Pinkerton National Detective Agency established:1850
- Nicola Tesla: 1856-1943
- Secret Service established:1865
- Percy Pilcher: 1866-1899
- Albert Einstein: 1879-1955
- Theodore Roosevelt as president: 1901-1909
- Our story takes place: 1902
- Detective Doyle: 1887 (first Sherlock Holmes story published)
- Union Pacific Railroad: founded 1862



What Kind of ____ Am I Going to Be?

Throughout the book, Wally asks himself, "What sort of Kennewickett am I going to be?" (p.7)

This is a great question to ask ourselves in any area of our lives! It can help us **figure out our priorities**, **set goals** and **clarify our own sense of who we are**. And as Noodles reminds us, the moments which help us decide who we are, are "not while the world is watching, but when (we) are almost alone". (p.94) And sometimes we learn who we really are through "the terrible testing of (our) hearts and wills." (p.123)

Have students fill in the blank and then write!

- One's last name: "What kind of Hamilton am I going to be?"
- A family role: "What kind of sister/brother/daughter/son am I going to be?"
- Another role from each student's life: "What kind of friend/soccer player/musician/student am I going to be?"

Present these projects to parents at a school event or to a buddy class with whom your class does projects, feature them a few at a time in your class newsletter, post a new one each day outside your classroom, have students read them out loud to their parents at their school conferences.





- Encourage students to keep a list of the fun, crazy and useful gadgets and machines that are highlighted in our story. Your students' gadgets and gears lists in their *Mesmer* Notebooks may include the following: dust bunnies, gyrating generator, automatons, dirigibles, atmospheric electron collectors, retractable rail cannons, lightning-fast popcorn popper, voltage vats.
- During independent work or project time, individuals or small groups can choose one of The Amazing Automated Inn's gadgets to explore further.
- Have students draw and diagram the gadget they've chosen, labeling the various parts and explaining how it works and what the gadget's purpose is.
- Encourage creative imagination here and post these amazing diagrams on a "Gadgets and Gears" bulletin board or publish them in a class book.

Let's be scientists! This is a great time to engage in your own science curriculum's experiments or try these fun and easy activities:

<u>Motor</u> <u>Robots</u> <u>Robot Kits</u> <u>Generator</u> <u>Popcorn</u> <u>More Popcorn</u>

> Remember: "Science is not something one can simply walk away from. Each experiment takes planning and preparation." p.24

A Guide to This Guide

The activities in this Guide were created with **4th and 5th grade** students in mind and informed by the **standards** detailed below, as well as by <u>Blooms Taxonomy</u>, <u>Gardner's</u> <u>Multiple Intelligences</u>, <u>Quadrant D Strategies</u> and <u>STEM Strategies/More STEM</u>.

Activities can easily be **adjusted** to meet the needs of your most **fragile and/or most advanced learners**.

Activities go well within science and social studies units on **scientific inquiry, simple and complex machines, inventors and inventions, renewable energy, wind and flight or the historical period around Theodore Roosevelt's presidency**.

Activities are laid out in a suggested order, but do what works best for your classroom!

Standards Used to Create the Activities in This Guide

<u>Common Core For Language Arts</u>:

Literature4th/Literature5th Informational Text4th/Informational Text5th Foundational Skills4th/Foundational Skills5th Writing4th/Writing5th Speaking & Listening4th/Speaking & Listening5th Language4th/Language5th

Common Core for Mathematics:

<u>Mathematical Practices</u> <u>Measurement & Data4th/Measurement & Data5th</u>

National Council for Social Studies

The following <u>Thematic Strands</u> are addressed throughout: Time/Continuity/Change, People/Places/Environments, Individual Development/ Identity, Individuals/Groups/Institutions, Power/Authority/Governance, Science/ Technology/Society, Global Connections, Civic Ideals and Practices

Next Generation Science Standards: (2/13 draft)

Earth Space Science Progression 3-5 (pgs. 1-4) Physical Science Progression 3-5 (pgs. 8-9)

California Visual and Performing Arts Content Standards:

Visual Arts 4th/5th (see pages 137-142)