



TEACHERS' RESOURCES

RECOMMENDED FOR

Secondary
Ages 13+

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KEY CURRICULUM AREAS

- **Learning areas:** English, STEM (Science, Technology, Engineering or Maths)
- **General capabilities:** Literacy, Critical and Creative Thinking, Personal and Social Capability, Ethical Understanding

REASONS FOR STUDYING THIS BOOK

- A thrilling YA debut novel from Australian born author, Emily Suvada, that explores one girl's quest for answers in a genetically and technologically advanced future
- Using STEM to solve mysteries or explore the universe
- Develop critical and creative thinking

THEMES

- Dystopian Fiction
- Dystopian Society & Power
- Relationships
- Empowerment vs Disempowerment
- Exploration and Identity
- STEM (Science, Technology, Engineering or Maths)

PREPARED BY

Penguin Random House Australia

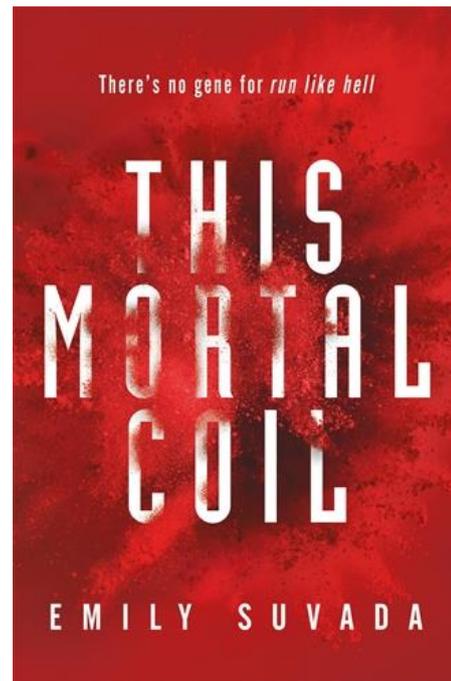
PUBLICATION DETAILS

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This Mortal Coil Emily Suvada

PLOT SUMMARY

A breathtaking debut about one girl's quest for answers in a genetically and technologically advanced future.

When a lone soldier, Cole, arrives with news of Lachlan Agatta's death, all hope seems lost for Catarina. Her father was the world's leading geneticist, and humanity's best hope of beating a devastating virus. Then, hidden beneath Cole's genehacked enhancements she finds a message of hope: Lachlan created a vaccine.

Only she can find and decrypt it, if she can unravel the clues he left for her. The closer she gets, the more she finds herself at risk from Cartaxus, a shadowy organisation with a stranglehold on the world's genetic tech. But it's too late to turn back.

There are three billion lives at stake, two people who can save them, and one final secret that Cat must unlock. A secret that will change everything.

ABOUT THE AUTHOR

Emily Suvada was born in Australia, where she went on to study mathematics and astrophysics. Her interest in science and tech never waned, particularly in genetic engineering and the question of what it means to be human. She thought it would be fun to explore these interests through characters running for their lives in a futuristic hellscape, so she wrote *This Mortal Coil*.

She now lives in Portland, Oregon, with her husband. When not writing, she can be found hiking, cycling, and conducting chemistry experiments in her kitchen.

AUTHOR'S INSPIRATION

Emily was influenced by her university studies and her love for STEM and coding.

Emily says on STEM:

STEM is an acronym that stands for Science, Technology, Engineering and Mathematics. It's a group of subjects I love, and think every person should be encouraged to pursue. There's a common misconception that STEM subjects are only for certain types of people—those who get straight A's, or have a natural talent for math and science. But the truth is that anyone can succeed in STEM. It just takes hard work, dedication, and motivation.

In my non-writing life, I work at a college and help students with their quantitative skills, which are crucial to STEM studies, but are often the reason people find those subjects challenging (or even frightening). And yet, I've never met a student who couldn't learn a quantitative skill they wanted to learn. The trick to succeeding in STEM is just that—you have to want it.

One of my goals as a writer is to share my passion for science and math through my writing, and inspire readers to want to learn more about STEM subjects—because they're awesome! If you're struggling with staying motivated in a STEM subject, or you're just not sure why these skills are useful, get in touch through my contact page www.emilysuvada.com, or ask me an anonymous question on tumblr www.emilysuvada.tumblr.com. I'm always happy to talk science!

Emily says on coding:

When I graduated from college, I had almost no experience coding. I'd completed a handful of tasks throughout high school and university by following step-by-step instructions that I didn't understand, and couldn't see the value in learning more. I thought coding was difficult, complicated, arcane, and boring.

But when I started work, I had to learn, and fast. Pretty soon, I realised that coding was fun, challenging, rewarding, frustrating, exciting, and absolutely perfect for me. If you're into problem-solving of any kind: crosswords, strategy games, sudoku, jigsaws, brain teasers, rearranging your bookshelf, finding the best route to school, or even if you're just a fan of technology, then coding might be a great hobby for you, too!

These days, I mess around in a number of coding languages, including:

R

Python

SQL

jQuery/JavaScript

HTML/CSS

PHP

MATLAB

VBA

I'm self-taught, constantly learning, always trying new things, breaking things, writing bugs, messing up, and fixing things. If you're interested in learning to code, there are a lot of free resources (and sites with some free content) online, including codecademy, datacamp, khan academy, and many more.

It takes time to learn to code, and the best way to do it is to learn the basics, then attack a small problem you want to solve (how can I calculate how many days/months/years old someone is, given their birthdate?) and gradually move on to bigger and more complicated problems.

WRITING STYLE

Questions

1. What is the novel's writing style? Consider how and when information is revealed?
2. What is another way this story could have been told? Compare and contrast to another book you have read.
3. What are the main themes of the novel and how does the use of STEM and a dystopian world contribute to the story?
4. What did you think of the novel's ending? Was it the best ending for this particular story?
5. How does the book's title relate to its content? What does it refer to?



KEY THEMES

Dystopian Fiction

1. What are the characteristics of a dystopian society?

Examples:

- Propaganda used to control citizens
- Information, independent thought and freedom are restricted
- A figurehead or concept is worshipped by the citizens of the society
- Citizens perceived to be under constant surveillance
- Citizens live in a dehumanised state
- Citizens have a fear of the outside world.
- The society is an illusion of a perfect utopian world.

2. What are types of dystopian control?

Examples:

- Corporate control
- Bureaucratic control
- Technological control
- Philosophical / religious control

3. What is the role of the dystopian protagonist?

Examples:

- Often feels trapped
- Questions the existing social and political systems
- Helps audience recognise negative aspects of the dystopian world through her / his perspective

Dystopian Society & Power

1. How does the opening of the novel in Chapter 1 foreground the setting/story world? Look at specific pages.
2. Who controls the citizens and why?
3. What type of examples are in the book that show dehumanisation, a totalitarian government, and poverty?
4. Look at the language of the novel and identify ways in which the author has established the setting and atmosphere of this dystopian world.

Look at:

- Description
 - Unusual language (comm-link, gen-kit, gentech)
 - Evocative words
 - Imagery
5. Discuss the mapping of the dystopian world and visualise and draw the setting.

Relationships

1. Discuss the importance of family and how it contributes to our 'identity' and sense of 'belonging'.
2. How has 'grief' affected Catarina's 'identity'?
3. How did her friendship with Cole allow her to 'move on'?
4. How would you describe Cole and why does the friendship between Catarina and Cole work?
5. Find quotes that explains/reveals Catarina's attitude and values towards her society, father, Cole, Agnes, the Lurkers, and Cartaxus.
6. Explore other characters and their significance in the novel, especially with Catarina?

Characters:

- Dr Lachlan Agatta
- Cole
- Agnes / Bobcat
- Dax
- Marcus
- Leoben
- Jun Bei
- Dr. Anya Novak

Questions to think about:

- Status – which area are they from?
- Description
- Role in the novel (enemy, friend, ally)
- Relationship to Catarina
- Quote about them
- Character development – how do they change?



Empowerment vs Disempowerment

1. What representations of different types of power are in the novel? Find examples. Eg. Physical, political, intellectual, individual power.
2. Does Catarina have any access to power?
3. Find examples in the novel when Catarina shows agency, transgresses or resists her society.

Concepts

- Agency: the capacity for deliberate thought and action.
 - Transgression: the act of breaking the rules. The inversion and subversion of some existing socially valued norm, rule, structure or contract.
 - Resistance: the act of resisting (not being compliant to) the social and cultural world that they are born into.
4. Discuss if there were any moments in the novel where characters gained some sort of freedom, from their society, their emotions, or their thoughts?
 5. Did freedom empower or disempower them, and why?
 6. Discuss and debate with a Visible Thinking – Tug of War activity where the teacher proposes the debate: *What would have happened if Marcus never removed Catarina's gentech? How would have the story changed? Would Catarina have ever learned the truth about her identity?*

Students will write their answers on post-it notes and stick them on the whiteboard, beginning the debate. The teacher will be the facilitator and listen to students' point of views.

7. Evaluate whether having a gentech empowers or disempowers people in the novel?

Exploration and Identity

1. What is Catarina's greatest fear at the beginning of the novel? Does this change?
2. Map the different sequence of events Catarina experiences before she learns her real identity?
3. What was Catarina like before she met Cole?
4. How does interacting with Cole change Catarina's perspective?
5. At the end of the novel, what does Catarina learn about herself, is she proud of who she has become or scared?

STEM (Science, Technology, Engineering or Maths)

1. What does the novel teach us about STEM?
2. How does Catarina interact with STEM?
3. What types of skills does Catarina have from having a STEM background? How does this knowledge help her throughout the novel?

WRITING ACTIVITIES

1. Rewrite the blurb on the back of the book in your own words.
2. Personal reflection – how would you feel living in this society, and would you live underground in the Cartaxus organisation or above the ground amongst the Lurkers? Would you live with the Wrath?
3. Write your own virus that will infect people, what would you call it, and what would be its impact?
4. Write biographies for Catarina, Cole, and Dr. Lachlan Agatta.
5. Create a 'playlist' of songs you think would make an appropriate soundtrack to listen to while reading the book or if the book was to become a film. Explain your choices.
6. Write a short story from the perspective of Cole. Develop his character. Explain your choices.
7. Create your own dystopian world. Think about:
 - What it will look like?
 - Where's it is located?
 - The post-apocalyptic back story – what happened?
 - How does the ruling class maintain power?
 - How do every day people live their daily lives?
8. Create your own Dystopian Protagonist and write a short story in first person. Think about:
 - Characteristics and traits
 - Character goal
 - Are they a follower or a leader?
 - How do they survive in the world?
 - What is their social class?
 - What is their role in their family?
 - Who are their friends?



EXTENSION ACTIVITY

1. Develop a 500 word monologue from any character's perspective in the book and present it to the class. Consider where the character is – in a cave, underground, a jeep, an abandoned house? What do they want to talk about – are they upset, happy or angry?
 - Make sure you focus on your expression of words, facial expressions and body language.

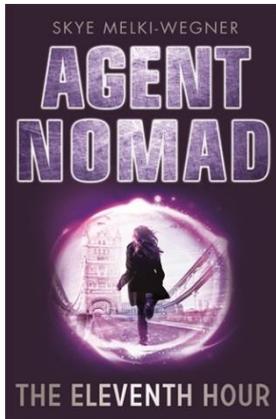
- *The Magic of Reality* by Richard Dawkins
- *Science in the Soul* by Richard Dawkins

ADDITIONAL READING

- *Agent Nomad 1: The Eleventh Hour* by Skye Melki-Wegner
- *Agent Nomad 2: Deadly Magic* by Skye Melki-Wegner
- *The 5th Wave* by Rick Yancey
- *The Infinite Sea: The 5th Wave (Book 2)* by Rick Yancey
- *The Last Star: 5th Wave (Book 3)* by Rick Yancey
- *I Am Number Four: Lorian Legacies (B1)* by Pittacus Lore
- *The Power of Six: Lorian Legacies (B2)* by Pittacus Lore
- *The Rise of Nine: Lorian Legacies (B3)* by Pittacus Lore
- *Fall of Five: Lorian Legacies (B4)* by Pittacus Lore
- *Revenge Of Seven: Lorian Legacies (B5)* by Pittacus Lore
- *Fate of Ten: Lorian Legacies (B6)* by Pittacus Lore
- *United as One: Lorian Legacies (B7)* by Pittacus Lore
- *Generation One: Lorian Legacies Reborn (B1)* by Pittacus Lore
- *Women in Science* by Rachel Ignotofsky
- *Girling Up* by Marim Bialik
- *Weapons of Math Destruction* by Cathy O'Neil
- *Seven Brief Lessons on Physics* by Carlo Rovelli
- *Storm in a Teacup: The Physics of Everyday Life* by Helen Czerski
- *The Gene* by Siddhartha Mukherjee
- *The Ten Types of Human* by Dexter Dias



FURTHER READING FROM PENGUIN RANDOM HOUSE AUSTRALIA



*Agent Nomad 1:
The Eleventh Hour*
by Skye Melki-Wegner

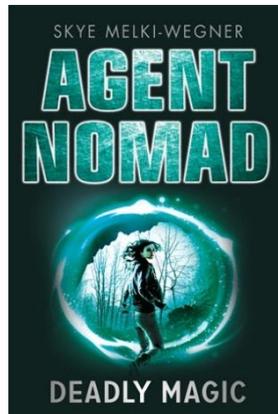
Spies. Secrets. Sorcery.

Natalie Palladino was a normal fifteen-year-old, at a normal school, about to face a normal maths test. Now her codename is Nomad, and she's training to become a secret agent for HELIX.

No one can know that sorcery exists. No one can know that HELIX protects humanity from the Inductors. And no one can know that Nomad is a Witness, with a dangerous magical gift. The Inductors are hunting her. If they find her, they will kill her.

But there's a traitor inside HELIX, and only a Witness can identify them. The problem is, Nomad hasn't mastered her powers. She can't levitate, fight or wield magic like her fellow recruits. If she's the only hope to stop a sorcerous bomb being detonated, the world is in trouble.

The eleventh hour is coming . . .



*Agent Nomad 2:
Deadly Magic*
by Skye Melki-Wegner

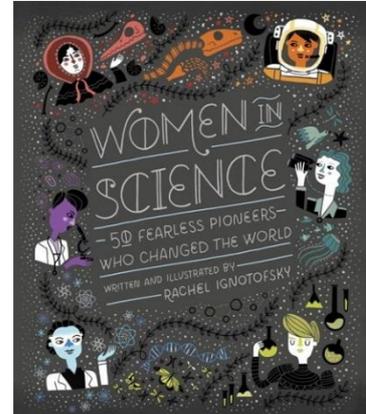
More spies. More secrets. More sorcery. Agent Nomad's back . . . but so are her enemies.

Red sky at night, sailor's delight.

After their mission in London, Nomad, Riff, Phoenix and Orbit are back at HELIX, training to master their magic. But things have changed. Nomad's secret is out. Her peers know she is a Witness; a sorcerer with the rare ability to read others' magic. This causes ripples at HQ, especially when it means that Steel, the most popular cadet in her class, is no longer the centre of attention.

But there are greater threats than new rivals. When the cadets are sent to New Zealand to investigate a top-secret case, they find themselves in more danger than they bargained for. With no one to trust and time running out, it's a race to stop the Inductors before they have enough power to destroy HELIX for good.

Red sky at morning, sailor's warning . . .



*Women In Science: 50
Fearless Pioneers Who
Changed the World*
by Rachel Ignatofsky

A charmingly illustrated gift book profiling 50 famous women scientists from the ancient Greek mathematician, philosopher, and astronomer, Hypatia, to Marie Curie, a physicist and chemist.

A recent U.S. Department of Education survey found that high school girls take the same number of math and science classes as boys and earn slightly higher grades, but only 15 percent of U.S. collegiate women major in science, technology, engineering, and mathematics (STEM) fields.

Encouraging young women and girls to pursue STEM career tracks has never been more important. Women in Science highlights notable women's contributions to various scientific fields and inspires readers both young and old. A fascinating collection full of striking, singular art, the book features 50 profiles and illustrated portraits of women in STEM from the ancient to the modern world.



ORDER FORM

TITLE	AUTHOR	ISBN	SCHOOL YEAR	RRP	QTY	TOTAL
This Mortal Coil	Emily Suvada	9780141379272	7+	\$17.99		
Agent Nomad 1: The Eleventh Hour	Skye Melki-Wegner	9780143780151	6-8	\$17.99		
Agent Nomad 2: Deadly Magic	Skye Melki-Wegner	9780143780403	6-8	\$17.99		
Women In Science: 50 Fearless Pioneers Who Changed the World	Rachel Igotofsky	9781607749769	5+	\$27.99		
TOTAL						

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