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Minecraft: The Island

A Novel

by Max Brooks

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Reading Level: 5



“A rollicking adventure yarn; *Robinson Crusoe* for the digital age.” —NPR

about the book

In the tradition of iconic stories like *Treasure Island*, *Minecraft: The Island* tells the story of a new hero stranded in the world of *Minecraft*, who must brave the harsh, unfamiliar environment to survive. In this world, the rules don't always make sense, but courage and creativity go a long way. There are forests to explore, hidden underground tunnels to loot, and undead mobs to defeat. Only then will the secrets of the island be revealed.

about the author

Max Brooks is an author, public speaker, and non-resident fellow at the Modern War Institute at West Point. His bestselling books include *The Zombie Survival Guide* and *World War Z*, which was adapted into a 2013 movie starring Brad Pitt. His graphic novels include *The Extinction Parade*, *GI Joe: Heart and Minds*, and the #1 *New York Times* bestseller *The Harlem Hellfighters*.

note to the teacher

Minecraft: The Island is a novel with highly engaging content for upper elementary and middle school students (Grades 5–8). The artful design of the storyline incorporates science phenomenon within a fictional setting and teaches numerous life lessons. *Minecraft: The Island* is appropriate for interdisciplinary instruction among language arts, science, and technology classrooms or for character-building instruction in a middle school advisory setting. It can easily serve as a vehicle for STEM instruction within a middle school science classroom while affording science teachers an opportunity to promote reading outside of the traditional textbook.

This guide provides ideas for questions to use in class discussion, writing prompts, development of vocabulary, strengthening of reading comprehension, and the application of key science concepts. Questions and activities are aligned to the Common Core State Standards (CCSS) for language arts and where the Next Generation Science Standards (NGSS) also apply, the science standard is noted.

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• vocabulary acquisition and use

The novel is peppered with rich academic vocabulary and the high-interest content provides the motivation for students to master the unfamiliar terms given the right conditions. Use Marzano’s research-based, “6 Steps for Teaching Vocabulary” as students navigate their way through the novel. The strategy is appropriate for all grade levels and content areas including STEM, language arts, and advisory courses. Employing deliberate instruction to develop students’ vocabulary will accelerate learning for all students including English learners and reluctant readers. Implement these steps throughout the unit of study on *Minecraft: The Island*. Consider clumping vocabulary words when chapters have fewer new words for students (e.g. Chapters 3 & 4). For a detailed description and implementation hints for each of the six steps to support vocabulary development—description, restatement, non-linguistic representations, activities, student discussion, and games—visit tiny.cc/marzano.

CCSS Literacy L.4

Determine or clarify the meaning of unknown or multiple-meaning words and phrases based upon grade level reading and content, choosing flexibility from a range of strategies.

CCSS Literacy L. 5

Demonstrate understanding of figurative language, word relationships, and nuances in word meaning.

CCSS Literacy L.6

Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

• key vocabulary words by chapter

chapter 1: never give up

tentacles, desperation, adrenaline, uber-aware, predicament, resistance, propelled, hyperventilating, nauseous, angular, inventory, foraging, oblivion, appendage, divot, hovering, consume, meltdown, suspended, mantra

chapter 2: panic drowns thought

critical, sapling, absentmindedly, understatement, compartment, warehouse, scowling, deflating, dweeb, notion, summit, uninhabited, lagoon, impassible, barrier, guffaw, phlegmy, gargle, instinctively, mottled, sprinted, frantically, corpse, hallucination, amnesia

chapter 3: don’t assume anything

suffocation, inhalation, marooned, skiff, hysteria, morphed

chapter 4: details make the difference

quivering, whimpering, frantically, slouching, splinter, tormentor, aggressive, passive

chapter 5: be grateful for what you have

zilch, stubby, gruesome, rejuvenating

chapter 6: overconfidence

delectable, inedible, irrational, cuboid, sauntering, frenzy, illuminated, rasped, chuffed, exultantly, cudgel, incandescence, incredulously

chapter 7: take life in steps

instinctively, vicious, arachnid, oblige, albeit, pontificating

chapter 8: the way

combustible, skulked, emboldened, arthropods, detonate, humanoid, bulbous, carnivorous, mutant, claustrophobic

chapter 9: friends keep you sane

ventilation, lethal, tantrums, lactose, fetid, ravenousness, reminiscing, cannibal

chapter 10: nothing clears the mind like sleep

vermin, spawn, scavenger, carcasses, culinary, salivating, ironic, somnambulist, putrefaction, amphibian, joining, contemplation

chapter 11: courage is a full-time job

docile, cowering, anxiety, resolve, exultant, rasp, bobber, behemoth, enticing, baguette, chastising

chapter 12: risk and reward

inedible, exasperating, monotony, resounding, obliterate, lethal, deterred, projectile, bombardment, bone meal

chapter 13: when the world changes . . .

sarcastic, stampeding, dredged, grisly, skittered, involuntarily, recesses, quipped, arcane, granules, deduce, anvil

chapter 14: always be aware of your surroundings

defected, fluke, legitimately, adaptation, ancestors, coup-de-grace, dehydrated, omni-directional, immersion, quenching, riddled

chapter 15: take care of your environment so it can take care of you

entice, coaxing, vigilant, awestruck, gingerly, obsolete, horde, hypnotically, foe, ebbed, ether

chapter 16: everything has a price

proclamation, clad, cache, cowering, extinction, decadence, inimitable, surplus, reaffirmation, subconscious, euphoria, quirk, metaphor, meandered, savory, conscience

chapter 17: it's not failure that matters, but how you recover

shrouded, ravenous, oblivious, recoiling, paltry, peril, plaintive, carcass

chapter 18: when trying to tell yourself something, listen!

profound, perseverance, epiphany, monologue, compromise, gobsmacked, meandering, despising, ravaged, blanched, halfling, imp, inevitable, verve, vigilance, lair, peculiarity, mused, bolstered, notion, posse

chapter 19: books make the world bigger

expedition, looted, exultant, ricocheted, scenario, tome, sterile, repetitive, cavern, chasm, supping, cryptic, accursed

chapter 20: revenge hurts only you

moseying, sabotage, invincible, scuttled, venom, toxins, parry, winced, noxious, DNA, revenge, groped, excruciating, devoured, nondescript

chapter 21: knowledge, like a seed, needs the right place to bloom

calorie, irrigation, pescatarian, navigation, meticulous

chapter 22: the end and the beginning

concussion, deluge

epilogue

gnawing, castaways

reading strategies to introduce the novel and support readers

key ideas & details

CCSS-Literacy RI.1 Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

1. Use the “Interactive Read Aloud” technique to introduce the novel. You may select the first few pages of the novel or an entire chapter depending upon the ages and reading abilities of your students. As you read, model effective reading strategies by sharing your predictions, connections, questions, and visualizations about the text with the class. Coach students to do the same as you collectively interact with the text. This allows reluctant readers and English learners time to focus on the content of the story without struggling with unfamiliar vocabulary and it engages all students in the story immediately.

integration of knowledge and ideas

CCSS-Literacy RI.7 Integrate information presented in different media or formats (e.g. visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.

1. In teams of three, have students sketch the Island on large sheets of butcher paper after reading the first three chapters of the novel. Features of the Island including the lagoon, Central Meadow, Disappointment Hill, and the gardens should be labeled along with a compass to indicate north, south, east, and west. Have the teams revisit their sketches as they progress through the novel, every three chapters or so, and add features including plants, animals, structures, and resources. This activity will build visualization skills, encourage students to reference evidence from the text, and promote academic conversations in and among teams. At the end of the novel, teams can compare the sketch they generated with the version provided in the online game version.

key ideas & details

CCSS-Literacy RI.1 Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

1. What problem solving methods does the Hero use to learn about the rules of the new world? Do some methods prove more effective than others? What is your evidence?
2. There are several examples of scientific laws or principles not “in play” in the novel. Identify five and explain the scientific laws or principles and how they are contradicted in the storyline.

text types and purposes

CCSS-ELA Literacy. CCRA. W.1 Write arguments to support claims in an analysis of substantive topics or text using valid reasoning and relevant and sufficient evidence.

1. The Hero is seemingly transformed from the world as we know it into the game of *Minecraft*. Do you believe the Hero is human? State your claim, evidence, and reasoning. Include specific examples from the text in your written response.
2. At the beginning of the novel the Hero states, “I couldn’t remember. I couldn’t remember anything. . . .” and yet there is evidence in the text that the Hero remembers several scientific concepts from the old world. Find examples in the first three chapters of what the Hero does remember about the laws of science in the old world and explain in writing how the information is useful in making sense of the new world.

NGSS-MS-LS3.A: Inheritance of Traits: Variations of inherited traits between parent and offspring arise from genetic differences that result from the subset of chromosomes inherited.

3. How do the Hero’s actions affect the biodiversity on the Island? Find two specific examples in the text and explain the implications to the Hero’s survival.

NGSS-MS-LS4.D: Biodiversity and Humans: Changes in biodiversity can influence humans’ resources, such as food, energy, and medicines, as well as ecosystem services that humans rely on—for example, water purification and recycling.

4. Draw the food web on the Island that includes the Hero and compare the trophic levels to a local food web in your community. What do you notice about the flow of energy in each web?

NGSS-MS-LS2.B: Cycle of Matter and Energy Transfer in Ecosystems: Food webs are models that demonstrate how matter and energy is transferred between producers, consumers, and decomposers as the three groups within an ecosystem.

5. The Hero leaves an extensive list of lessons learned from visiting the Island. With a team of two other students, draft three more lessons the novel teaches you and provide your reasoning with evidence from the text.

CCSS-ELA Literacy. CCRA. W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

1. After reading chapters 1–7, write a “message in a bottle” from the Hero (140 characters only) that synthesizes the lessons learned thus far. After reading chapters 8–15 write another message providing additional advice for future visitors about survival on the Island. At the end of the novel, write one last message with the Hero’s final words of advice. What “recipes” or steps would the Hero need to take to craft the ink, pen, paper, and glass bottle to send these messages? How do you know?
2. Water is one of the compounds immediately introduced in the storyline and becomes critical to help the Hero survive throughout the game. Compare the properties of water in the old world versus the game world using a Venn diagram. How does this impact the Hero’s survival?

NGSS-MS-PS1.A: Structures and Properties of Matter: Substances are made from different types of atoms, which combine with one another in various ways. Atoms form molecules that range in size from two to thousands of atoms.

3. Research the biodiversity on an island of interest to you. It may be close to where you live or far away, deserted or heavily populated. Assess the health of the island and compare it to the health of the biodiversity found on the Hero’s Island.

NGSS-MS-LS2.C: Ecosystem Dynamics, Functioning, and Resilience: Biodiversity describes the variety of species found in Earth’s terrestrial and oceanic ecosystems. The completeness or integrity of any ecosystem’s biodiversity is often used as a measure of its health.

craft and structure

CCSS-Literacy RI. 5 Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.

1. When the Hero builds his last house, he begins to decorate it with pictures. What is the significance of the two different images described on page 213? If you are not sure, how can you find out?
2. The Hero's compass always points to the "original spawning point" (page 254). What is the impact of this on the Hero's ability to navigate? Explain the significance of the location where the Hero was "spawned."
3. The Hero compares evolution of his crafting to various historical time periods including the Stone Age, Iron Age, and Industrial Age. How does his journey also relate to the Computer Age? Research the major characteristics associated with the Computer Age and provide examples to support your stance. Does the process of moving from one "Age" to the next fundamentally change the Hero's life? Provide rationale to support your answer.
4. At the end of the novel, the Hero states, ". . . I hope you've learned that in this world of mines and crafting, the most important thing you can craft is yourself." How does this statement relate to the song lyrics referenced on page 26 and page 214 from "Once in a Lifetime," by the Talking Heads? What is the significance to the lessons the author wants you to take away? Reference the full set of lyrics and the meaning of the song at tiny.cc/onceinalifetime.

related activities

NGSS-MSETS1-1 Define criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principals and potential impacts on people and the natural environment that may limit possible solutions.

1. Scientists and engineers use different problem-solving models to answer questions and design solutions to challenges or problems. Use OSCAR, an easy-to-remember problem solving method, to design a house for your survival on the Island. Remember it needs to be monster proof, weather proof, practical, and may even be aesthetically pleasing. If you have *Minecraft* available, build your house in the creative mode. Refer to pages 71 and 90 for ideas to help you with scale. Compare your results to your classmates' before completing the reflection section of the OSCAR problem solving model.

OSCAR: An Easy-to-Remember Problem-Solving Method

Credit: John Bennett, Jr., Emeritus Engineering Professor, Midlothian, VA

Objective: What design challenge are you presented with and what constraints are placed upon you?

Speedbumps: What is slowing you down at this moment from reaching your objective? (e.g. resources, ratios of player to house or room size, location on the Island, etc.)

Considerations: What are all the practical solutions/designs you could use to reach your objective or goal? Record your ideas and then select the one that is the best solution.

Answer: Record your ideas for the house design, including a sketch to scale. Report any appropriate data that relates to the objective such as ratios of the player size to the rooms and general floor plan of the house.

Reflection: How did you do? What worked well and what changes or improvements would you make to your design if you could start over again? How did your solution compare to other solutions?

2. Learning the “Game” of Science

The Hero in the novel figures out the rules of the game by playing the game and using various problem-solving techniques. Select one of the game versions (Beta, Gamma, Delta, Psi, or Theta) from the “Game” of Science website, tiny.cc/gameofscience. You and your team will find a gameboard, playing pieces, and a brief history of the game as played by two players. Your job, like the Hero on the Island, is to figure out the rules and the goal of the game. Don’t look for answers from the authors, they will tell you to persevere, as referenced in “The Way of the Cube!”

CCSS-ELA LITERACY W.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

1. The Hero to the Island reveals the ultimate lesson of the new world, “growth doesn’t come from a comfort zone, but from leaving it.” Research a recent breakthrough in STEM (Science, Technology, Engineering, and Mathematics). It can be any breakthrough that interests you. Perhaps a robotic fly, a lightweight 3-D camera, or the latest and fastest rollercoaster! Design an infographic to provide information about the breakthrough and its creator. As part of the infographic, answer the question: How did this breakthrough make its creator(s) leave his or her comfort zone? One source where you can find STEM breakthroughs is tiny.cc/breakthroughs. Infographic templates can be found at Easel.ly (www.easel.ly) or Infogram (infogram.com).

NGSS-MS-ETS1.C: Optimizing the Design Solution: The iterative process of testing the most promising solutions and modifying what is proposed on the basis of the test results leads to greater refinement and ultimately to an optimal solution.

2. The Hero collects spider silk as a crafting resource. How does the Hero use the silk and what constraints does using this resource present? Do you think spider silk is a valuable resource in our world? What potential uses do you think spider silk may have? Record the collective thinking of the class before and after reading the following article: tiny.cc/spidersilk.

NGSS-MS-ETS1.C: Optimizing the Design Solution: The iterative process of testing the most promising solutions and modifying what is proposed on the basis of the test results leads to greater refinement and ultimately to an optimal solution.

3. The Hero builds and uses a compass to navigate around the Island. Build a homemade compass and compare its effectiveness in navigating around your school yard or school building with orienteering directions provided by your teacher. Compare the effectiveness of a compass typically used in orienteering to navigate with teacher-generated instructions. Write a short journal entry to explain to a traveler how to use a compass to navigate around your school campus or school yard. Include information on how the electromagnetic forces allow the compass to function as a navigational tool and why one tool may be more helpful. Instructions for building a homemade compass can be found at tiny.cc/makeacompass.

NGSS-MS-PS2.B: Types of Interactions: Electric and magnetic (electromagnetic) forces can be attractive or repulsive, and their sizes depend on the magnitudes of the charges, currents, or magnetic strengths involved and on the distances between the interacting objects.

4. Explore the work of mining engineers at tiny.cc/miningengineers. Compare and contrast their work with the mining practices in *Minecraft*. Play the Cookie Mining Game (tiny.cc/cookie mining), a short game to learn about the economic and environmental realities involved in mining resources. What challenges do mining engineers face that the Hero did not?

NGSS-ESS3.C: Human Impacts on Systems: Typically as human populations and per capita consumption of natural resources increase, so do the negative impact on Earth unless the activities and technologies involved are engineered otherwise.

resources

Gamify Your Classroom: A Field Guide to Game-Based Learning by Matthew Farber

“Navigation Education Materials,” The Institute of Navigation

Ten lessons to introduce the basics of navigation to students from map reading, using compasses, triangulation in navigation and the foundations of GPS • tiny.cc/IONlessons

“The Ultimate STEM Guide for Kids: 239 Cool Sites about Science, Technology, Engineering, and Math,” Master’s in Data Science • tiny.cc/STEMguide

“Ideas for Using Minecraft in the Classroom” by Andrew Miller, Edutopia

tiny.cc/minecraftintheclassroom

“Tips for Teaching with MinecraftEdu,” MinecraftEdu Wiki • tiny.cc/minecrafteu

Minecraft: Education Edition

Discover a platform specifically designed for educators and students to develop problem-solving and creativity in the classroom using Minecraft • education.minecraft.net

“Neuroscience and Zombies!,” *PBS NewsHour*

Four STEM lessons for grades Grades 7–12 which use the behavior of zombies to teach about healthy human brain anatomy and neuroscience. What can zombie behavior on the Island teach you about zombie brains and, consequently, healthy human brains? • tiny.cc/zombiebrains

The Multiplayer Classroom: Designing Coursework as a Game by Lee Sheldon

Mining Landfills Activity from “Landfill Recovery,” *Inquiring Scientists, Inquiring Readers in Middle School, Using Nonfiction to Promote Science Literacy* by Terry Shiverdecker and Jessica Fries-Gaither (Grades 6–8)

“5 Reasons to Use Games in the Classroom” by Rebekah Stathakis, Education World

tiny.cc/classroomgames

other works of interest

El Deafo by Cece Bell

A Long Walk to Water: Based on a True Story by Lindo Sue Park

Nation by Terry Pratchett

The Martian: Classroom Edition by Andy Weir

about this guide’s writer

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