

"Star Splitter" Lesson Plan Guide

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Unit Overview

Duration: 3-4 weeks **Grade Level**: 9-12

Subject Integration: ELA, Science, Philosophy/Ethics, Critical Thinking

Essential Question: How do we define identity and humanity in an age of advancing technology,

and what are our ethical responsibilities when developing new scientific capabilities?

Content Advisory: This novel contains suspenseful and potentially frightening scenarios including isolation, implied violence, death, and psychological tension. Teachers should preview the book and consider their students' maturity levels and sensitivities.

Learning Objectives

Students will be able to:

- Analyze complex character development and motivation in science fiction literature
- Examine themes of identity, consciousness, and self-determination
- Explore ethical questions raised by advancing technology
- Understand suspense-building techniques in mystery and thriller genres
- Make connections between science fiction concepts and real scientific developments
- Evaluate evidence and draw conclusions from limited information
- Express understanding through creative and analytical projects

WEEK 1: Introduction to Science Fiction and Mystery Elements

Day 1: Genre Introduction and Pre-Reading

Objective: Introduce science fiction thriller genre and build anticipation

Materials: Science fiction examples, mystery genre chart, discussion prompts

Opening (10 minutes)



- Quick-write: "If you could teleport anywhere instantly, would you do it? Why or why not?"
- Partner share responses

Main Activity (30 minutes)

- 1. **Genre Exploration** (15 minutes)
 - Define science fiction and thriller/mystery genres
 - o Discuss how these genres can combine
 - o Introduction to suspense and tension-building techniques
- 2. Future Technology Discussion (15 minutes)
 - Brainstorm: What technologies might exist in 2198?
 - o Discuss space exploration and planetary colonization
 - Preview teleportation concept and ethical questions it raises

Closing (5 minutes)

- Predict what could go wrong with teleportation technology
- Assign reading: Opening chapters introducing Jessica and her situation

Assessment: Genre understanding, thoughtful prediction quality

Day 2: Meeting Jessica and Understanding Her Situation

Objective: Analyze protagonist's background and initial conflict

Materials: Character analysis worksheet, family dynamics discussion guide

Opening (10 minutes)

 Think-pair-share: "How do you think Jessica feels about reuniting with parents who left six years ago?"

Main Activity (30 minutes)

1. Character Foundation (20 minutes)



- Character analysis focusing on Jessica's emotional state and relationships
- o Explore themes of abandonment and forced relocation
- Discuss how personal history affects character motivations

2. **Setting and Context** (10 minutes)

- Establish the year 2198 and technological context
- o Understand Jessica's journey from Earth to Carver 1061c
- o Preview what "should" have happened vs. what did

Closing (5 minutes)

Exit ticket: "What questions do you have about Jessica's situation?"

Homework: Read chapters covering Jessica's awakening in the destroyed lander

Assessment: Character analysis depth, contextual understanding

Day 3: The Mystery Begins - Building Suspense

Objective: Analyze mystery elements and suspense-building techniques

Materials: Mystery tracking worksheet, suspense analysis chart

Opening (5 minutes)

Quick discussion: "What surprised you most about where Jessica woke up?"

Main Activity (35 minutes)

- 1. Mystery Element Identification (20 minutes)
 - Track the clues Jessica discovers: empty corridors, bloody handprints, graves
 - Analyze how Kirby builds tension and suspense
 - Discuss unreliable information and how it creates uncertainty

2. Evidence Analysis (15 minutes)

Begin class evidence chart



- Practice drawing conclusions from limited information
- Explore how mysteries reveal information gradually

Closing (5 minutes)

Share one theory about what might have happened

Assessment: Mystery element identification, evidence tracking quality

Days 4-5: Survival and Investigation

Objective: Track Jessica's survival strategies and investigation methods

Materials: Survival skills analysis chart, investigation tracking sheet

Structure for Each Day:

- Opening (10 min): Investigation journal—students record new clues and update theories
- Main Activity (25 min): Literature circles focusing on survival strategies and evidence analysis
- Closing (10 min): Theory refinement and evidence discussion

Reading Assignments: Continue through early-middle chapters **Assessment**: Investigation journal quality, theory development with evidence

WEEK 2: Identity, Consciousness, and Ethical Questions

Day 6: Teleportation and Identity Questions

Objective: Explore philosophical questions about identity and consciousness

Materials: Identity discussion prompts, philosophical thought experiment worksheets

Opening (10 minutes)

 Present thought experiment: "If you could make an exact copy of yourself with all your memories, would both be 'you'?"

Main Activity (30 minutes)

1. **Identity Philosophy Discussion** (20 minutes)



- Explore what makes someone uniquely themselves
- Discuss teleportation implications: is reassembling atoms the same person?
- Connect to Jessica's situation and the novel's deeper questions

2. Consciousness Concepts (10 minutes)

- Age-appropriate introduction to consciousness concepts
- Discuss continuity of self over time
- Explore mind-body relationships

Closing (5 minutes)

Exit ticket: "What do you think makes you 'you'?"

Assessment: Engagement with philosophical concepts, thoughtful reasoning

Day 7: Scientific Ethics and Responsibility

Objective: Examine ethical questions in scientific research

Materials: Ethics discussion scenarios, responsibility analysis worksheet

Opening (5 minutes)

• Review Jessica's parents' choice to leave her for research

Main Activity (35 minutes)

- 1. Ethics in Science Discussion (25 minutes)
 - Explore what scientists should consider before developing new technology
 - Discuss responsibility to consider consequences
 - o Connect to real-world examples of technology with unintended effects

2. Parent Responsibility Discussion (10 minutes)

- o Analyze tension between important work and family responsibilities
- Discuss Jessica's feelings about being abandoned for research



o Explore different perspectives on difficult choices

Closing (5 minutes)

Share one thing scientists should always consider before new developments

Assessment: Ethical reasoning quality, perspective-taking ability

Day 8: Isolation and Psychological Survival

Objective: Analyze psychological aspects of extreme isolation

Materials: Psychological survival strategy chart, resilience analysis worksheet

Opening (10 minutes)

Discuss: "How does being completely alone affect how Jessica thinks and acts?"

Main Activity (30 minutes)

- 1. Isolation Analysis (20 minutes)
 - Examine how Jessica copes with being alone in dangerous circumstances
 - o Identify strategies she uses to maintain hope and focus
 - Discuss human need for connection and how it affects survival
- 2. Resilience Discussion (10 minutes)
 - Explore what helps people survive impossible situations
 - o Connect to Jessica's specific strengths and how she discovers them
 - o Discuss how crisis can reveal capabilities we didn't know we had

Closing (5 minutes)

Exit ticket: "What strength does Jessica show that you admire most?"

Assessment: Psychological understanding, resilience concept grasp

Days 9-10: Mystery Deepens and Evidence Accumulates



Objective: Track mystery development and theory refinement

Follow similar structure with focus on:

- How new evidence changes understanding of situation
- Jessica's evolving theories about what happened
- Connections between different clues and mysteries
- Preparation for approaching climax and revelations

WEEK 3: Resolution, Synthesis, and Real-World Applications

Day 11: Mystery Resolution and Revelations

Objective: Analyze story resolution and evaluate mystery solutions

Materials: Resolution analysis worksheet, evidence review chart

Opening (10 minutes)

- Complete reading of resolution chapters
- Initial reactions to revelations

Main Activity (30 minutes)

- 1. Mystery Solution Analysis (20 minutes)
 - Review how clues led to final revelations
 - Evaluate whether resolution was satisfying and logical
 - Discuss how Kirby structured the mystery for maximum impact

2. Theme Synthesis (10 minutes)

- o Identify how the resolution addresses the novel's major themes
- Discuss what the ending suggests about identity, consciousness, and ethics
- Connect resolution to real-world implications

Closing (5 minutes)



• Quick-write: "What surprised you most about the story's resolution?"

Assessment: Mystery analysis quality, theme synthesis depth

Day 12: Character Transformation and Growth

Objective: Analyze Jessica's development throughout the novel

Materials: Character transformation chart, growth analysis worksheet

Opening (10 minutes)

• Small group discussion: "How is Jessica different at the story's end?"

Main Activity (30 minutes)

- 1. Character Growth Analysis (20 minutes)
 - Compare Jessica at beginning vs. end of story
 - o Identify key moments that contributed to her transformation
 - Discuss how crisis and isolation forced her to grow
- 2. **Self-Discovery Discussion** (10 minutes)
 - Explore what Jessica learned about herself and her capabilities
 - o Discuss how facing impossible situations reveals inner strength
 - Connect to personal growth opportunities in students' lives

Closing (5 minutes)

Exit ticket: "What's the most important thing Jessica discovered about herself?"

Assessment: Character analysis accuracy, personal connection quality

Day 13: Science Fiction and Real Science

Objective: Connect fictional concepts to real scientific developments

Materials: Current science research articles, comparison chart



Opening (5 minutes)

• Review the science fiction elements in the book

Main Activity (35 minutes)

- 1. Real Science Exploration (25 minutes)
 - Research current work on quantum teleportation
 - Explore actual space exploration and colonization plans
 - Discuss consciousness research and current scientific understanding
- 2. Fiction vs. Reality Discussion (10 minutes)
 - Compare book's technologies to current and projected real developments
 - o Discuss how science fiction can help us think about future implications
 - Explore ethical questions we should consider now

Closing (5 minutes)

Share one real scientific development that connects to the book

Assessment: Research quality, connection-making ability

Day 14: Critical Analysis Project Introduction

Objective: Apply story themes to analytical and creative thinking

Materials: Project guidelines, research resources

Project Options:

- 1. Ethics Essay: Analyze ethical questions raised by the novel's technology
- 2. Identity Exploration: Philosophical essay on consciousness and what makes us "us"
- 3. **Scientific Proposal**: Research and present on real teleportation science and its implications
- 4. Alternative Perspective: Retell key events from another character's viewpoint



5. Future Scenario: Write science fiction exploring another ethical technology question

Structure:

- Opening (10 min): Project explanation and topic selection
- Work Time (30 min): Research and planning
- Closing (5 min): Project plan sharing with partners

Assessment: Project plan quality, connection to themes

Day 15: Project Development

Objective: Develop projects with peer feedback

Materials: Various supplies, research resources

Opening (5 minutes)

• Review project expectations and peer feedback guidelines

Main Activity (35 minutes)

- Independent project work
- Peer consultation and feedback sessions
- Teacher conferences on project development

Closing (5 minutes)

Progress sharing and problem-solving

Assessment: Project progress, effective research and development

WEEK 4: Presentations and Synthesis

Day 16: Project Presentations Part 1

Objective: Share analytical and creative work

Materials: Presentation equipment, evaluation rubrics



Opening (5 minutes)

Presentation expectations and supportive audience guidelines

Main Activity (35 minutes)

- Student presentations (approximately 5 minutes each)
- Audience provides thoughtful feedback and questions

Closing (5 minutes)

Reflection on presentations and themes explored

Assessment: Presentation quality, audience engagement

Day 17: Project Presentations Part 2 and Discussion

Objective: Complete presentations and synthesize learning

Materials: Synthesis discussion prompts, reflection worksheets

Opening (5 minutes)

Final presentation preparation

Main Activity (30 minutes)

- Remaining student presentations
- Whole class discussion of themes across different projects

Closing (10 minutes)

Begin unit reflection writing

Assessment: Presentation completion, synthesis participation

Day 18: Unit Reflection and Real-World Connections

Objective: Synthesize learning and connect to broader implications

Materials: Reflection prompts, discussion questions, current events articles



Opening (10 minutes)

• Think-pair-share: "What's the most important thing this book made you think about?"

Main Activity (30 minutes)

- 1. Theme Synthesis (15 minutes)
 - o Review major themes: identity, ethics, survival, self-determination
 - Discuss how these themes connect to current technology and society
 - Explore ongoing relevance of questions the novel raises
- 2. **Personal Application** (15 minutes)
 - Students identify how the novel's themes apply to their lives and future
 - Discuss responsibilities they'll have as future scientists, citizens, and decisionmakers
 - o Create personal commitments to thinking critically about technology and ethics

Closing (5 minutes)

Unit celebration and acknowledgment of complex thinking demonstrated

Assessment: Reflection depth, personal application quality

Assessment Rubric

Reading Comprehension (25%)

- **Exceeds**: Demonstrates sophisticated understanding of plot, character, and themes in complex narrative
- Meets: Shows solid comprehension with adequate text evidence
- Approaching: Basic understanding with support needed
- **Below**: Limited comprehension of story elements

Critical Thinking (25%)



- Exceeds: Analyzes philosophical and ethical questions with nuanced, thoughtful reasoning
- Meets: Understands complex questions and provides reasonable analysis
- Approaching: Recognizes major questions with guidance
- **Below**: Limited engagement with deeper concepts

Theme Analysis (25%)

- Exceeds: Identifies and analyzes multiple themes with sophisticated connections to realworld issues
- Meets: Recognizes major themes with appropriate analysis
- Approaching: Identifies basic themes
- Below: Minimal theme understanding

Scientific and Ethical Understanding (25%)

- Exceeds: Makes sophisticated connections between fiction and real science;
 demonstrates complex ethical reasoning
- Meets: Understands basic science connections and ethical questions
- Approaching: Recognizes some science and ethics concepts
- **Below**: Limited understanding of scientific or ethical dimensions

Differentiation Strategies

For Struggling Readers:

- Audio support for challenging sections
- Graphic organizers for tracking plot and evidence
- Simplified philosophical discussion frameworks
- Modified writing assignments with structured support

For Advanced Readers:



- Independent research on consciousness, identity philosophy, or quantum mechanics
- Leadership roles in philosophical discussions
- Extended analysis of narrative techniques
- Connections to additional science fiction exploring similar themes

For English Language Learners:

- Visual supports for complex concepts
- Collaborative discussion opportunities
- · Key vocabulary pre-teaching
- Multiple modalities for demonstrating understanding

For Students Sensitive to Scary Content:

- Alternative reading options or skip passages if needed
- Focus on mystery-solving and critical thinking aspects
- Additional support processing intense scenes
- Emphasis on Jessica's strength and problem-solving

Materials List

- Class set of "Star Splitter"
- Philosophical thought experiment resources
- Current science articles about relevant topics
- Chart paper and markers for tracking evidence
- Research materials for projects

Extension Activities

Home Connections:

Family discussions about identity and consciousness



- Exploration of family values around science and ethics
- Research about space exploration together
- Discussion of technology ethics in daily life

Community Connections:

- Guest speakers from science or philosophy fields
- Virtual or in-person visits to science museums or planetariums
- Connections with university researchers studying relevant topics
- Participation in ethics discussions or competitions

Cross-Curricular Connections

Science:

- Study of space exploration and exoplanets
- Introduction to quantum mechanics concepts
- Research on consciousness and neuroscience
- Exploration of scientific method and ethics

Philosophy:

- Age-appropriate introduction to philosophy of mind
- Ethical reasoning and moral philosophy basics
- Logic and critical thinking skills
- Thought experiments and philosophical inquiry

Social Studies:

- History of scientific discoveries and their impacts
- Study of how societies handle new technologies
- Exploration of decision-making about technological development



• Rights, autonomy, and self-determination concepts

Real-World Applications

Critical Thinking:

- Evaluating evidence and drawing logical conclusions
- Analyzing ethical dilemmas from multiple perspectives
- Understanding scientific processes and limitations
- Thinking about future implications of current developments

Technology Literacy:

- Understanding how to think critically about new technologies
- Considering ethical implications before adoption
- Recognizing the difference between science fiction and real science
- Developing informed opinions about technological progress