Into the Outdoors

SPINCAST OUTFITTERS

6th-8th Grade Discussion Guide

Developed by: Dan Bertalan and Phyllis McKenzie

SCIENCE CATEGORIES
Life Science, Physical Science, Social Studies, Environmental Science, Natural Resource Science

TIMEFRAME
Three, 45-minute Sessions

MATERIALS
Access to computers and the internet, Pre-lesson Worksheet, Four (4) Student Stakeholder Group Worksheets

TOPICS
Recreation planning, physics, social and aquatic ecosystems

LEARNING OBJECTIVES

Students will be able to:

- Understand the different considerations in developing a recreational R3 angling plan. They will also understand that natural resource recreational plans can be adapted to fulfill the needs of people while respecting ecosystems and environmental laws.

- Define the reasons for developing a plan and identify the key concepts in a recreational development plan.

- Use video, online research and classroom discussion in developing and supporting their understanding of a Spincasters Recreational Plan.

- Work in small and large groups to process new information and use various life science evidence to develop and come to conclusions.

ACTIVITY SUMMARY

Students will research, debate and develop their own custom Spincast Outfitters Business. Their plans will consider factual information, logic, and balanced reasoning to create a mock angling-related outfitter business while helping their class learn about angling and aquatic ecosystems.

BACKGROUND INFORMATION

OVERVIEW (Teacher reads to the students and is included in the various Student Group Worksheets)

The old lakeside summer camp you enjoyed as a kid has closed but the memories of the fun and fishing adventure you had there lives on. As you walk past the old rowboats by the camp and look across the lake at the increased activity along the lakeshore, a sudden business opportunity sparks in your mind. Why not start a fishing outfitter business by renting the old rowboats, outfitting fishing rods and reels, selling baits, and selling fishing maps of the secret spots for catching fish? And that's what you'll get to do in this Spincast Outfitters activity where some of you will;

- Be in charge of equipping, instructing and renting the rowboats

- Select and instruct your customers on how to use a spincasting rod and reel

- Develop a fishing map to the best secret fishing spots on the lake

- Become fishing clients who want to pay to be outfitted and instructed on how to catch fish.

(For Teacher only) By taking part in this lesson, students will develop an understanding of the importance and concepts of matching aquatic knowledge with recreational development, while using critical thinking in a peer-driven activity where students ask critical questions, perform research, and present their "Spincasters Recreational Plan".

LEARNING PROCEDURE

Fishing with a Spincaster Reel - Fish Habitats classroom video and background information can be found at; intotheoutdoors.org/topics/into-fishing-with-a-spincaster-reel/

SESSION 1

Before watching the *Spincasters* classroom video, or, reading the website background information, ask students what they know about fishing or recreational development. Also ask students how many have actually been fishing and what type of fishing rods and reels they may have used. Then lead a class discussion about the rewards and challenges of fishing.

Print and distribute the *Pre-Lesson Student Worksheet* (copy contained in this PDF). Instruct students to fill in the worksheet while watching the *Spincasters* video. Go over the questions with the students before viewing so they know what to look and listen for. After viewing the video, review and discuss the answers to the questions as a class.

Next, divide the class into these four (4) Stakeholder Groups;

1. Boat Masters

2. Spincast Masters

3. Fishing Spots Masters

4. Wannabe Angling Masters

Print and hand out the four group worksheets (copies contained in this PDF). Inform students they will be working together within their respective groups to achieve the different and group-specific goals detailed in their assigned worksheets. Explain briefly what they will do in each of the three sessions. Answer any questions about the assignment.

SESSION 2 - Group Research & Plan Development

Each of the four (4) groups have specific and sometimes different subjective goals in developing a Spincasters Recreational Plan.

In their separate groups, have students perform online research from the resource links provided on the webpage, plus other sources they discover, then discuss and develop their group's Spincasters Recreational Plan that explores creating a plan that fulfills the needs of their respective group while considering the needs of other groups. The worksheets provide specific group (and different) instructions for students on what to consider in developing their plans.

Inform each group that two members of their group will also present their Spincasters Recreational Plan and recommendations to the entire class during Session 3. Their presentations should be supported by research and/or evidence, and presented with at least one form of art or media prepared by the group (either video, poster, graphs, charts, images, or art).

SESSION 3 – Student Group Presentations & Class Debate

Using their completed worksheets, have each group present their Spincasters Recreational Plan and supporting research. Limit each group to five minutes presentation time followed by several minutes of questions and discussion between the groups representing their respective stakeholder roles. Encourage discussion about differences in their plans and how to mediate or compromise on differences.

After the four groups each present their Spincasters Recreational Plan, lead a class discussion on how the different groups might develop a comprehensive Plan that could be used in almost any part of the country. Consider the logistics of their plan being used within actual lake communities and parks that have access to water that could generate new and successful anglers.

Conclude Session 3 by listing on the board the four most important aspects of each groups' plan. Then list the most important aspects that were part of two or more groups. Lead a discussion with student input on how they might refine an overall Spincasters Recreational Plan and how they might distribute their refined plan to other classrooms or communities. Also, explore how certain plans could increase cross-cultural and ecosystem awareness in various communities.

ASSESSMENT

Students will be informally assessed based on their participation within their groups and during class presentations and discussions. Teachers could collect the discussion notes students took during the video to check for completion.

Students can be formally assessed using their Student Stakeholder Worksheets. Students can be assessed on meeting the formal learning objectives on how thoroughly students completed their respective worksheets.

EXTENSION ACTIVITIES

With outside (or gym facility) access to spincasting outfits equipped with safe rubber casting plugs and adult supervision, create a *Master Casters* spincasting competition. Create different course challenges for:

• Casting accuracy

• Casting distance

• Casting styles

SPINCAST OUTFITTERS PRE-LESSON STUDENT WORKSHEET

Developed by: Dan Bertalan and Phyllis McKenzie

Student Name:_____Class:_____Date:_____

Before watching the video or exploring the website, review these questions, look for and write down your answers while watching the video.

1) What are the two main parts of a spincasting outfit?

_____

_____

_____

2) What are some advantages of spincasting versus a cane pole?

_____

_____

_____

3) Besides using live bait, what other ways can someone catch a fish using a spincasting outfit?

_____

_____

_____

4) What are the safety procedures when fishing from a boat and why?

_____

_____

_____

5) How does understanding aquatic ecosystems help anglers locate fish?

_____

_____

_____

6) What types of places on a lake might offer the best fishing and why?

_____

_____

_____

BOAT MASTERS GROUP WORKSHEET

Developed by: Dan Bertalan and Phyllis McKenzie

Student Name:_____Class:_____Date:_____

Welcome to the Boat Masters group. Here's the deal...

The old lakeside summer camp you enjoyed as a kid has closed but the memories of the fun and fishing adventure you had there lives on. As you walk past the old rowboats by the camp and look across the lake at the increased activity along the lakeshore, a sudden business opportunity sparks in your mind. Why not start a fishing outfitter business by renting the old rowboats, outfitting fishing rods and reels, selling baits, and selling fishing maps of the secret spots for catching fish?

And that's what you'll get to do in this Spincast Outfitters activity where your group will be in charge of researching, planning, equipping (on paper), and instructing your rowboat clients before they go fishing. Two of your group will present your plan to the entire class in Session 3 where it will also be open to questions and answers from the class.

The goal of your group is to research and create a "safe-n-smart" rowboat rental plan that could include:

1. What could be done in fixing up and equipping the old rowboats to make them safe for your angling clients?

2. What gear might you outfit your boats with to help clients have fun or be more successful?

3. What safe-n-smart rules might you develop and have your clients agree to before they can rent your boats? (Waiver form?)

4. People naturally get excited when catching fish. So, what "on the water boat behavior" training should be part of your plan?

5. Part of your presentation could include either video, poster, handouts or acting out parts of your plan. So be creative and have fun.

Now go create an awesome rowboat rental plan to present in Session 3.

SPINCAST MASTERS GROUP WORKSHEET

Developed by: Dan Bertalan and Phyllis McKenzie

Student Name:_____Class:_____Date:_____

Welcome to the Spincast Masters group. Here's the deal...

The old lakeside summer camp you enjoyed as a kid has closed but the memories of the fun and fishing adventure you had there lives on. As you walk past the old rowboats by the camp and look across the lake at the increased activity along the lakeshore, a sudden business opportunity sparks in your mind. Why not start a fishing outfitter business by renting the old row-boats, outfitting fishing rods and reels, selling baits, and selling fishing maps of the secret spots for catching fish?

And that's what you'll get to do in this Spincast Outfitters activity where your group will be in charge of researching, equipping, and instructing your fishing clients so they can have a safe and successful fishing adventure using spincasting outfits. Two of your group will present your plan to the entire class in Session 3 where it will also be open to questions and answers from the class.

The goal of your group is to research and create a "spincasting outfit rental" plan that could include:

1. What combinations of reels and rods will work best for a cross-section of fishing skills of your angling clients? Be specific...

2. What are the angling advantages of using a spincasting outfit versus cane poles or other types of rod-reel outfits?

3. What kinds of line, and fishing baits or lures will you offer as part of your rental fishing outfit and why? (Consider the main target species in the lake)

4. How will you instruct your clients on how to cast with a spincasting outfit?

5. Part of your presentation could include either video, poster, handouts or acting out parts of your plan. So be creative and have fun.

Now go create an awesome spincasting outfit rental plan to present in Session 3.

FISHING SPOT MASTERS GROUP WORKSHEET

Developed by: Dan Bertalan and Phyllis McKenzie

Student Name:_____Class:_____Date:_____

Welcome to the Fishing Spot Masters group. Here's the deal…

The old lakeside summer camp you enjoyed as a kid has closed but the memories of the fun and fishing adventure you had there lives on. As you walk past the old rowboats by the camp and look across the lake at the increased activity along the lakeshore, a sudden business opportunity sparks in your mind. Why not start a fishing outfitter business by renting the old rowboats, outfitting fishing rods and reels, selling baits, and selling fishing maps of the secret spots for catching fish?

And that's what you'll get to do in this Spincast Outfitters activity where your group will be in charge of researching, preparing, and instructing your fishing clients on where on the lake to catch fish using your secret fishing spot map. Two of your group will present your map and plan to the entire class in Session 3 where it will also be open to questions and answers from the class.

The goal of your group is to research and create a "secret fishing spots map" that could include:

1. What are the key target species of fish that live in the lake and how to identify them?

2. What are best "structural places" (abiotic factors) along the shoreline to catch fish? (consider underwater structural or topographic information)

3. What are the best "ecosystem places" (biotic components) to catch fish? (and why)

4. How might wind direction and sun position affect different spots on your map?

5. What geographic information should you include on your map to ensure clients are fishing in the right spot?

6. What are the best combinations of baits to match the different spots and target fish species?

Now go create an awesome secret fishing spot map to present in Session 3.

WANNABE ANGLING MASTERS GROUP WORKSHEET

Developed by: Dan Bertalan and Phyllis McKenzie

Student Name:_____Class:_____Date:_____

Welcome to the Wannabe Angling Masters group. Here's the deal...

You're vacationing at a popular lake and notice that the old summer camp is being taken over by a group of kids to create a fishing outfitter business by renting the old rowboats, outfitting fishing rods and reels, selling baits, and selling fishing maps of the secret spots for catching fish. You've never tried fishing because you don't know a darned thing about it. But now you wonder if you might give it a try by getting "outfitted" by the new Spincast Outfitters. And that wondering comes with a lot of critical questions.

And that's what you'll get to do in this Spincast Outfitters activity where your group will be in charge of researching, preparing, and asking all kinds of novice questions about boating safety and fishing while the other groups are making their presentations. In fact, even if you know something about fishing, have fun grilling the other groups with silly "novice wannabe questions" when they're presenting their plans during Session 3 which will also be open to more questions and answers from the entire class.

The goal of your group is to research and create a "list of critical questions" that could include:

1. What do I need to know and do to be safe when fishing from a boat?

2. What kinds of fish might I catch and where on the lake to catch them?

3. How should I hold and release a fish if I catch one? (will it bite my hand?)

4. What kinds of baits should I use and how to use them?

5. How in heck can I learn to cast with a spincasting outfit? (looks complicated)

6. Fishing sounds too hard, so can I also hire some of you to be guides?

7. We don't want to get in trouble or fined. So what are the legal requirements for boating and fishing?

Now go create an awesome list of critical questions with these and more to ask other groups when they present in Session 3.

The following National Common Core Standards can be met teaching;

SPINCAST OUTFITTERS

6TH GRADE:

CCSS.ELA-LITERACY.RI.6.1	Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
CCSS.ELA-LITERACY.RI.6.2	Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
CCSS.ELA-LITERACY.RI.6.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.
CCSS.ELA-LITERACY.RI.6.6	Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.
CCSS.ELA-LITERACY.RI.6.7	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.
CCSS.ELA-LITERACY.W.6.1	Write arguments to support claims with clear reasons and relevant evidence.
CCSS.ELA-LITERACY.W.6.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
CCSS.ELA-LITERACY.W.6.3	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
CCSS.ELA-LITERACY.W.6.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
CCSS.ELA-LITERACY.W.6.5	With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
CCSS.ELA-LITERACY.W.6.6	Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.
CCSS.ELA-LITERACY.W.6.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.
CCSS.ELA-LITERACY.W.6.8	Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.
CCSS.ELA-LITERACY.W.6.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
CCSS.ELA-LITERACY.W.6.10	Write routinely over extended time frames (time for research, reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.
CCSS.ELA-LITERACY.SL.6.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.
CCSS.ELA-LITERACY.SL.6.2	Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.

CCSS.ELA-LITERACY.SL.6.3	Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.
CCSS.ELA-LITERACY.SL.6.4	Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
CCSS.ELA-LITERACY.SL.6.5	Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.
CCSS.ELA-LITERACY.SL.6.6	Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.
CCSS.ELA-LITERACY.L.6.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
CCSS.ELA-LITERACY.L.6.2	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
CCSS.ELA-LITERACY.L.6.3	Use knowledge of language and its conventions when writing, speaking, reading, or listening.
CCSS.ELA-LITERACY.L.6.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies.
CCSS.ELA-LITERACY.L.6.5	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
CCSS.ELA-LITERACY.L.6.6	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.

7TH GRADE:

CCSS.ELA-LITERACY.RI.7.1	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
CCSS.ELA-LITERACY.RI.7.3	Analyze the interactions between individuals, events, and ideas in a text e.g., how ideas influence individuals or events, or how individuals influence ideas or events).
CCSS.ELA-LITERACY.RI.7.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.
CCSS.ELA-LITERACY.RI.7.6	Determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.
CCSS.ELA-LITERACY.W.7.1	Write arguments to support claims with clear reasons and relevant evidence.
CCSS.ELA-LITERACY.W.7.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
CCSS.ELA-LITERACY.W.7.3	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
CCSS.ELA-LITERACY.W.7.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

CCSS.ELA-LITERACY.W.7.5	With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.
CCSS.ELA-LITERACY.W.7.6	Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.
CCSS.ELA-LITERACY.W.7.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.
CCSS.ELA-LITERACY.W.7.8	Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.
CCSS.ELA-LITERACY.W.7.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
CCSS.ELA-LITERACY.W.7.10	Write routinely over extended time frames (time for research, reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.
CCSS.ELA-LITERACY.SL.7.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.
CCSS.ELA-LITERACY.SL.7.2	Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.
CCSS.ELA-LITERACY.SL.7.3	Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.
CCSS.ELA-LITERACY.SL.7.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.
CCSS.ELA-LITERACY.SL.7.5	Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.
CCSS.ELA-LITERACY.SL.7.6	Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.
CCSS.ELA-LITERACY.L.7.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
CCSS.ELA-LITERACY.L.7.2	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
CCSS.ELA-LITERACY.L.7.3	Use knowledge of language and its conventions when writing, speaking, reading, or listening.
CCSS.ELA-LITERACY.L.7.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.
CCSS.ELA-LITERACY.L.7.5	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
CCSS.ELA-LITERACY.L.7.6	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.

8TH GRADE:

CCSS.ELA-LITERACY.RI.8.1   Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.

CCSS.ELA-LITERACY.RI.8.3   Analyze how a text makes connections among and distinctions between individuals, ideas, or events.

CCSS.ELA-LITERACY.RI.8.4   Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.

CCSS.ELA-LITERACY.RI.8.6   Determine an author's point of view or purpose in a text and analyze how the author distinguishes acknowledges and responds to conflicting evidence or viewpoints.

CCSS.ELA-LITERACY.RI.8.7   Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multi-media) to present a particular topic or idea.

CCSS.ELA-LITERACY.W.8.1   Write arguments to support claims with clear reasons and relevant evidence.

CCSS.ELA-LITERACY.W.8.2   Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

CCSS.ELA-LITERACY.W.8.3   Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.

CCSS.ELA-LITERACY.W.8.4   Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

CCSS.ELA-LITERACY.W.8.5   With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.

CCSS.ELA-LITERACY.W.8.6   Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.

CCSS.ELA-LITERACY.W.8.7   Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.

CCSS.ELA-LITERACY.W.8.8   Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

CCSS.ELA-LITERACY.W.8.9   Draw evidence from literary or informational texts to support analysis, reflection, and research.

CCSS.ELA-LITERACY.W.8.10   Write routinely over extended time frames (time for research, reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

CCSS.ELA-LITERACY.SL.8.1   Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.

CCSS.ELA-LITERACY.SL.8.2   Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.

CCSS.ELA-LITERACY.SL.8.3   Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.

CCSS.ELA-LITERACY.SL.8.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.
CCSS.ELA-LITERACY.SL.8.5	Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.
CCSS.ELA-LITERACY.SL.8.6	Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.
CCSS.ELA-LITERACY.L.8.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
CCSS.ELA-LITERACY.L.8.2	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
CCSS.ELA-LITERACY.L.8.3	Use knowledge of language and its conventions when writing, speaking, reading, or listening.
CCSS.ELA-LITERACY.L.8.4	Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on grade 8 reading and content, choosing flexibly from a range of strategies.
CCSS.ELA-LITERACY.L.8.5	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
CCSS.ELA-LITERACY.L.8.6	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.

6TH - 8TH GRADE:

CCSS.ELA-LITERACY.RST.6-8.1	Cite specific textual evidence to support analysis of science and technical texts.
CCSS.ELA-LITERACY.RST.6-8.2	Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.
CCSS.ELA-LITERACY.RST.6-8.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6-8 texts and topics.
CCSS.ELA-LITERACY.RST.6-8.6	Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.
CCSS.ELA-LITERACY.RST.6-8.7	Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).
CCSS.ELA-LITERACY.RST.6-8.8	Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.
CCSS.ELA-LITERACY.RST.6-8.9	Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.
CCSS.ELA-LITERACY.WHST.6-8.1	Write arguments focused on discipline-specific content.
CSS.ELA-LITERACY.WHST.6-8.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.
CCSS.ELA-LITERACY.WHST.6-8.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

CCSS.ELA-LITERACY.WHST.6-8.5	With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.
CCSS.ELA-LITERACY.WHST.6-8.6	Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.
CCSS.ELA-LITERACY.WHST.6-8.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
CCSS.ELA-LITERACY.WHST.6-8.8	Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation
CCSS.ELA-LITERACY.WHST.6-8.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
CCSS.ELA-LITERACY.WHST.6-8.10	Write routinely over extended time frames (time for research, reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

NEXT GENERATION SCIENCE STANDARDS:

MS-LS2-1. Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem. Clarification Statement: Emphasis is on cause-and-effect relationships between resources and growth of individual organisms and the numbers of organisms in ecosystems during periods of abundant and scarce resources.

MS-LS2-2. Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems. Clarification Statement: Emphasis is on predicting consistent patterns of interactions in different ecosystems in terms of the relationships among and between organisms and abiotic components of ecosystems. Examples of types of interactions could include competitive, predatory, and mutually beneficial.

MS-LS2-3. Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem. Clarification Statement: Emphasis is on describing the conservation of matter and flow of energy into and out of various ecosystems, and on defining the boundaries of the system.

MS-LS2-4. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations. Clarification Statement: Emphasis is on recognizing patterns in data and making warranted inferences about changes in populations, and on evaluating empirical evidence supporting arguments about changes to ecosystems.