MIDDLE SCHOOL LESSON GUIDE



DESIGNING FISHING & BOATING PROGRAMS FOR CAMPGROUNDS PEER-DRIVEN MIDDLE SCHOOL DISCUSSION GUIDE

DEVELOPED BY DAN BERTALAN

In This Activity...

Students will assume four different stakeholder roles as "recreational planners" in researching, debating and developing a Campground Boating & Fishing Plan for all students to discover the economic and social benefits of integrating fishing and boating programs into the broader recreational activity of camping.

Educational Partners







Life Science

LESSON GUIDE OVERVIEW

GRADE LEVELS Middle School - Grades 6-8

CONTENT AREAS

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

UNIT THEME Outdoor Recreation Planning

TOPICS

Human health, recreation planning, environmental awareness, social and cultural interaction

TIME REQUIRED Three, 45-minute sessions



OVERVIEW

In recent years, more American families are pursuing outdoor recreational activities closer to home at various types of parks and campgrounds. Their reasons for going "camping" vary as much as the benefits they receive from the different kinds of activities they do while "camping". The most obvious benefits fall into three major categories; 1) physical benefits, 2) mental benefits, and 3) social benefits. These recreational activities can enhance these benefits and the personal rewards of their camping trip.

Although roasting marshmallows over the campfire may be one reward of camping, many campers are discovering the "full benefits package" by **adding the combination of boating and fishing** as key parts of their family camping adventure. And because most campgrounds measure their success by the numbers of campers and boaters, and in turn how that equates to economic income to support campgrounds, it presents an ideal opportunity for campground operators to design custom fishing and boaters in a "synergistic" relationship.

To decode how camping, boating, and fishing can increase participation in and the enjoyment of combining these three recreational activities, in this lesson students will assume the stakeholder roles of various types of "recreational planners". Working in student "groups" they will participate in research, debate and development of a **Campground Boating & Fishing Recreational Plan** where all students can discover the synergistic benefits of combining these activities. Through this educational process, students will also gain an awareness of ecosystems and cross-cultural differences while understanding different value systems.



CONCEPT Outdoor Recreation Planning

ENDURING UNDERSTANDING:

Students will understand the differences between the benefits of recreational camping, boating and fishing, and how they relate to the understanding of recreational ecosystems. They will also understand the differences in the cultural values of recreational fishing, boating and camping.

CONTENT OBJECTIVES:

Students will be able to evaluate the various kinds of social, personal and economic benefits of combining boating and fishing with camping. They will also be able to research and debate the differences and potential synergistic benefits of developing recreational programs that combine all three activities.

LEARNER OBJECTIVES:

Students will use online research to develop a Campground Boating & Fishing Recreational Plan that will introduce students to the benefits of combining these complimentary recreational activities. Students will use group online research, discussions, presentations and debate to develop an overall classroom Campground Boating & Fishing Recreational Plan that explores innovative ideas and business strategies to promote their plan.

PROCESS OBJECTIVES:

Students will work in small and large groups to process new information and use various life science evidence to come to conclusions.

MATERIALS NEEDED (each group, each student):

- Access to computers and the Internet
- Boating-Fishing videos and background information at; (https://intotheoutdoors.org/topics/kids-fishing-101/)
- Pre-lesson Worksheet with questions to fill in while watching the video
- Four (4) Student Group Recreational Planners Worksheets;
 - Campground Operators
 - Boaters R Us
 - Family Anglers Association
 - Recreational Development Association

PROCEDURES

Session 1 – Boating & Fishing while Camping

Before watching the video, (link above) or reading the website information, ask students about the benefits of combining family camping with boating and fishing. Also ask students if they have actually gone boating and/or fishing while camping and what experiences resulted in personal rewards. Lead a short discussion on what students have learned about the rewards or benefits of boating and fishing while camping. Then discuss why different cultures might have varying perspectives on the benefits of combining these three recreational activities.

Have students download, or print and distribute the Pre-Lesson Student Worksheet (free PDF on the web link). Instruct students to fill in the worksheet while watching the 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. Encourage discussion.

Next, divide the class into these four (4) stakeholder groups:

- 1. Campground Operators
- 2. Boaters R Us
- 3. Family Anglers Association

4. Recreational Development Association

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.



PROCEDURES (continued)

Session 2 - Group Research & Plan Development

Have the four groups of students download and print their respective group **Recreational Planners Worksheets** (free PDFs on the web link) and review the background information on the website. Each of the four (4) groups have specific and sometimes different goals in developing a **Campground Boating & Fishing 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 **Campground Boating & Fishing Recreational Plan** that explore the "synergistic benefits" of combining the three types of recreation into one overall plan or event. The worksheets provide specific instructions for students on what to consider in developing their plans. Inform each group that two members of their group will also present their 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 **Campground Boating & Fishing 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 the four plans and why they may occur.

After the four groups each present their Campground Boating & Fishing Recreational Plan, **lead a class discussion** on how the different groups might develop a comprehensive Campground Boating & Fishing Recreational Plan that could be used in almost any part of the country. Consider the logistics of their plan at actual campgrounds and parks with access to water that could synergistically benefit campers, boaters, and 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 their final overall "classroom plan" and how they might distribute or promote it to campgrounds, parks as well as fishing and boating organizations. Also, explore how certain plans may increase cultural and ecosystem awareness.

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

SPECIAL CONSIDERATIONS:

This activity is richest when completed in groups with answers shared to a whole class. The student worksheet is not a typical worksheet as it encourages students to construct knowledge as they answer questions. The questions build off of each other.

FISHING & BOATING PROGRAMS FOR CAMPGROUNDS





EXTENSION ACTIVITIES

Custom Plan for Their Favorite Campground – Students can select their favorite campground, or one that is located near their community, to develop a custom plan for combining formal boating and fishing activities at that campground. They can present their plan to the operators of the campground for constructive feedback. They then present their findings to the classroom on how they could modify their plan considering the actual feedback they received from the campground.

RESOURCES

- <u>Research the resources offered on this topic's web page...</u>https://intotheoutdoors.org/topics/kidsfishing-101/
- Where to fish near you... https://www.takemefishing.org/where-to-fish-and-boat/
- Find free campsites near you... https://freecampsites.net/#!Fishing
- <u>Places to Camp-Fish on US Forests.</u>.. https://www.fs.usda.gov/visit/know-before-you-go/great-places-tofish-with-us





The following National Common Core Standards can be met teaching;

DESIGNING FISHING & BOATING PROGRAMS FOR CAMPGROUNDS:

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.6.7 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.6.6 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.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



6th Grade:

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 domainspecific 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.7.2 Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.

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.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.7.6 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.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.



National Common Core Standards continued for PERSONAL REWARDS OF FISHING:

7th Grade:

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 domainspecific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Grade 8:

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.8.2 Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.

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.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.8.6 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.

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National Common Core Standards continued:

8th Grade:

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.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.8.3 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 domainspecific 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.6-8.8 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.





Grades 6-8 continued:

CCSS.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.

Next Generation Science Standards for Grades 6-8:

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-LS2-4. 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.]

MS-LS2-5. Evaluate competing design solutions for maintaining biodiversity and ecosystem services.* [Clarification Statement: Examples of ecosystem services could include water purification, nutrient recycling, and prevention of soil erosion. Examples of design solution constraints could include scientific, economic, and social considerations.]

MS-ESS3-3. Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.* [Clarification Statement: Examples of the design process include examining human environmental impacts, assessing the kinds of solutions that are feasible, and designing and evaluating solutions that could reduce that impact. Examples of human impacts can include water usage (such as the withdrawal of water from streams and aquifers or the construction of dams and levees), land usage (such as urban development, agriculture, or the removal of wetlands), and pollution (such as of the air, water, or land).

MS-ETS1-1. Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.