

## WATER SAFETY BEST PRACTICES

### 6th-8th Grade Discussion Guide

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#### SCIENCE CATEGORIES

Life Science

#### TIMEFRAME

Two to Three Class Periods

#### MATERIALS

Recording devices

#### KEYWORDS

Personal Flotation Device (PFDs), Wake, Engine Cut-off Device, Hydrostatic Inflatable PFD, Hydraulic Steering



### LEARNING OBJECTIVES

- Recognize and explain safe boating practices
- Create a public service announcement (PSA)
- Read and discuss an informational text.

### ACTIVITY SUMMARY

This lesson is intended to inform students on how to enjoy boating safely and prevent accidents from happening.

First, students will consider some scenarios and discuss what the boaters in these scenarios could have done differently to be safer. Then students will read an informative article on boating safety in Wisconsin. Student partners will engage in a silent, written conversation about the article in response to two questions.

Finally, students will work with a partner to develop a storyboard for a PSA on boating safety which they will then film.

### BACKGROUND INFORMATION

Personal Floating Devices (PFDs) help save people in real life. This episode recounts the story of Hunter, a bass fisher person, who was headed out onto the lake. When his boat crossed another boat's wake his steering failed, spinning the boat and tossing him and his passenger overboard.

His passenger's PFD inflated and helped to keep his head above water. Hunter's life vest, however, was manual so it didn't inflate the way his friend's did. Fortunately Hunter's friend was able to pull the manual inflate cord. Hunter learned a valuable lesson; the type of PFD you choose should match the sport you're engaged in.

Some tips for ensuring you are as safe as possible in the event of a boating accident include wearing an engine cut off device and by making sure all passengers on the boat have a PFD.

## VOCABULARY

**Personal Flotation Devices:** A life preserver, life jacket, or other device for keeping a person afloat in the water.

**Wake:** The wave a boat creates underway as it displaces water.

**Engine Cut Off Device:** A simple emergency-off switch that turns off the machine with a click.

**Hydrolic Inflatable PFD:** Inflates when submerged in water by activating a CO2 gas cartridge.

**HYDROLIC STEERING:** Mechanical device equipped on a motor vehicle that helps drivers steer, making it easier for the vehicle to turn or maneuver at lower speeds.



## LEARNING PROCEDURE

Boating is a fun recreational activity, but it can also be dangerous if you aren't taking the right precautions. How would you react in the case of an accident, and what can you do to prevent them from happening?

The instructor will tell students they are going to focus on preventing accidents from happening. The instructor will provide several scenarios connected to boating and students will consider what these boaters could do to better avoid accidents.

1. A family of five is going out for a boat ride on a lake. There are five PFD throw cushions onboard but no life vests.
2. A friend invites you to go out on a boat. She explains that her grandfather gave it to her that morning and she hasn't used it for ten years.
3. You are going water tubing with a friend. The only extra life vest they have for you is way too large.



## ACTIVITY 1:

Instruct students to individually read the article Boating Safety Tips from the Wisconsin DNR. While reading, students should use whatever method of note-taking they are most comfortable with. Following reading the article, students will engage in an activity called A Silent Conversation.

The instructor will pose a series of questions and pairs of students will engage in conversation through writing on these questions. After the instructor poses the question, each student will respond in two-three sentences on a sheet of paper. After the initial response, pairs will swap papers and respond to their partner's thinking with one-two sentences. This back and forward exchange should continue for at least four rounds. Then, the instructor may pose another question and students enter into another round of silent dialogue. Students may benefit from some sentence stems; examples included below.

### Questions

What was one tip that surprised you and why?

What is one key piece of information you would want to remember to share with families and friends?

### Sentence Stems

I agree with what you said but I would add that...

I never thought of that. That makes me think. . .

Tell me more about what you meant when you said. . .

I would also add that. . .

## ACTIVITY 2:

Instruct pairs of students to develop a Public Service Announcement (or PSA) for boating safety (PSA example included in related links). Explain to students that PSAs are meant to change attitudes and behaviors, usually through a powerful message that will stick with a viewer.

Provide students with a [storyboard template](#) to create a visual plan for their video. Explain that the blank boxes are to sketch images of what they want to see on the screen. The audio portion (dialogue, music and sound effects) go on the lines below the boxes. Students should be encouraged to bring props and/or costumes from home for recording their PSA videos the following day.

## CONCLUSION

When it comes to boating, there's no such thing as being too prepared. How do you plan on staying safe next time you're out on the water? Students should provide an answer to this question either as a round robin or exit ticket.



## EXTENDING THE LESSON

### Example:

- Students survey a set of people on their boating safety habits (use of PFDs, proper maintenance of machines, etc.) and portray the results graphically.
- Research the statistics of boating accidents from the county and state of residence.
- Research the laws and regulations for operating a watercraft of the student's choice (ex: motorboat, kayak, jetski).
- Brainstorm some potential modifications to lifejackets that could make them both safer and more comfortable to wear.
- Spend a few hours watching watercrafts on the water and write about the activities you witnessed that were potentially unsafe.

### Related Links

- Selecting a PFD - UL <https://www.ul.com/news/its-match-selecting-life-jacket-fits>
- The different tests - UL <https://www.ul.com/news/world-life-jacket-testing>
- Statistics on how PFDs save lives <https://www.ul.com/news/statistics-show-personal-flotation-devices-help-save-lives>
- Signing up for PFD testing at UL <https://www.ul.com/services/personal-flotation-device-certifications>
- Student PSA example <https://www.youtube.com/watch?v=94Ve2vctL9c>

The following National Common Core Standards can be met teaching:

## WATER SAFETY BEST PRACTICES

### 4TH GRADE

- CCSS.ELA-LITERACY.RI.4.1** Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- CCSS.ELA-LITERACY.RI.4.2** Determine the main idea of a text and explain how it is supported by key details; summarize the text.
- CCSS.ELA-LITERACY.RI.4.9** Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.
- CCSS.ELA-LITERACY.W.4.1** Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
- CCSS.ELA-LITERACY.W.4.2** Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- CCSS.ELA-LITERACY.W.4.4** Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.
- CCSS.ELA-LITERACY.SL.4.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.
- CCSS.ELA-LITERACY.SL.4.1.A** Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
- CCSS.ELA-LITERACY.SL.4.1.B** Follow agreed-upon rules for discussions and carry out assigned roles.
- CCSS.ELA-LITERACY.SL.4.1.C** Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.
- CCSS.ELA-LITERACY.SL.4.1.D** Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.
- CCSS.ELA-LITERACY.SL.4.4** Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
- CCSS.ELA-LITERACY.SL.4.5** Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.

### 5TH GRADE

- CCSS.ELA-LITERACY.RI.5.1** Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
- CCSS.ELA-LITERACY.RI.5.2** Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.
- CCSS.ELA-LITERACY.RI.5.7** Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
- CCSS.ELA-LITERACY.RI.5.9** Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.
- CCSS.ELA-LITERACY.W.5.1** Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
- CCSS.ELA-LITERACY.W.5.2** Write informative/explanatory texts to examine a topic and convey ideas and information clearly.



- CCSS.ELA-LITERACY.W.5.4** Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.
- CCSS.ELA-LITERACY.SL.5.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.
- CCSS.ELA-LITERACY.SL.5.1.A** Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
- CCSS.ELA-LITERACY.SL.5.1.B** Follow agreed-upon rules for discussions and carry out assigned roles.
- CCSS.ELA-LITERACY.SL.5.1.C** Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
- CCSS.ELA-LITERACY.SL.5.1.D** Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.
- CCSS.ELA-LITERACY.SL.5.4** Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
- CCSS.ELA-LITERACY.SL.5.5** Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.

## 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.6.7** 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.6.2** 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.6.2.A** Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
- CCSS.ELA-LITERACY.W.6.2.B** Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
- CCSS.ELA-LITERACY.W.6.2.C** Use appropriate transitions to clarify the relationships among ideas and concepts.
- CCSS.ELA-LITERACY.W.6.2.D** Use precise language and domain-specific vocabulary to inform about or explain the topic.
- 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.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.7.1.C**

Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.

**CCSS.ELA-LITERACY.SL.7.1.D**

Acknowledge new information expressed by others and, when warranted, modify their own views.

**CCSS.ELA-LITERACY.SL.7.5**

Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.

## 7TH 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.8.2**

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.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.8.2.A**

Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.

**CCSS.ELA-LITERACY.W.8.2.B**

Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.

**CCSS.ELA-LITERACY.W.8.2.C**

Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.

**CCSS.ELA-LITERACY.W.8.2.D**

Use precise language and domain-specific vocabulary to inform about or explain the topic.

**CCSS.ELA-LITERACY.W.8.2.E**

Establish and maintain a formal style.

**CCSS.ELA-LITERACY.W.8.2.F**

Provide a concluding statement or section that follows from and supports the information or explanation presented.

**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.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.8.1.A**

Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.

**CCSS.ELA-LITERACY.SL.8.1.B**

Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.

**CCSS.ELA-LITERACY.SL.8.1.C**

Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.

**CCSS.ELA-LITERACY.SL.8.1.D**

Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.

**CCSS.ELA-LITERACY.SL.8.5**

Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.



## 8TH GRADES

- CCSS.ELA-LITERACY.RI.9-10.1** Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- CCSS.ELA-LITERACY.RI.9-10.2** Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.
- CCSS.ELA-LITERACY.W.9-10.2** Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
- CCSS.ELA-LITERACY.W.9-10.2.A** Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
- CCSS.ELA-LITERACY.W.9-10.2.B** Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.
- CCSS.ELA-LITERACY.W.9-10.2.C** Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.
- CCSS.ELA-LITERACY.W.9-10.2.D** Use precise language and domain-specific vocabulary to manage the complexity of the topic.
- CCSS.ELA-LITERACY.W.9-10.2.E** Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- CCSS.ELA-LITERACY.W.9-10.2.F** Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).
- CCSS.ELA-LITERACY.W.9-10.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- CCSS.ELA-LITERACY.SL.9-10.1** Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-LITERACY.SL.9-10.1.A** Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.
- CCSS.ELA-LITERACY.SL.9-10.1.B** Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.
- CCSS.ELA-LITERACY.SL.9-10.1.C** Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
- CCSS.ELA-LITERACY.SL.9-10.1.D** Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-LITERACY.SL.9-10.5** Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.



## 9TH-10TH GRADES

- CCSS.ELA-LITERACY.RI.11-12.1** Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.
- CCSS.ELA-LITERACY.RI.11-12.2** Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to provide a complex analysis; provide an objective summary of the text.
- CCSS.ELA-LITERACY.W.11-12.2** Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
- CCSS.ELA-LITERACY.W.11-12.2.A** Introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
- CCSS.ELA-LITERACY.W.11-12.2.B** Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.
- CCSS.ELA-LITERACY.W.11-12.2.C** Use appropriate and varied transitions and syntax to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.
- CCSS.ELA-LITERACY.W.11-12.2.D** Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic.
- CCSS.ELA-LITERACY.W.11-12.2.E** Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- CCSS.ELA-LITERACY.W.11-12.2.F** Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).
- CCSS.ELA-LITERACY.W.11-12.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- CCSS.ELA-LITERACY.SL.11-12.1** Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-LITERACY.SL.11-12.1.A** Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.
- CCSS.ELA-LITERACY.SL.11-12.1.B** Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed.
- CCSS.ELA-LITERACY.SL.11-12.1.C** Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.
- CCSS.ELA-LITERACY.SL.11-12.1.D** Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- CCSS.ELA-LITERACY.SL.11-12.5** Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.