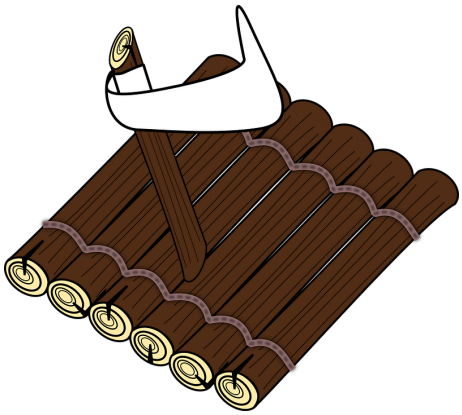
HUCKBOT: OZOBOTS DOWN RIVER



Lesson Tags

GRADE LEVEL:

10th Grade

SUBJECTS:

English Language Arts,

DIFFICULTY:

Beginner

DURATION:

At the end of a unit

PREREQUISITE KNOWLEDGE:

- [LINK TO ROBOTICS GUIDE]

Objectives/Intended Learning Outcomes

In this lesson, students will:

- Demonstrate understanding of plot and character development of *The Adventures of Huckleberry Finn* by creating an interactive map with significant points of Huck's journey.
- Determine the central idea or theme by citing strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

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LESSON OVERVIEW

This is a group project that takes place at the end of a Unit on Huckleberry Finn**.

In small groups, students will code an Ozobot to follow and interpret Huck Finn's journey throughout the novel. They will draw a map and program Ozobot to perform "moves" that correlate with an event along the map. This project will be accompanied by a 1½ - 2 pg. paper explaining their programming choices.

**Note: This same project can be done for different works of fiction that deal with traveling/space or have significant maps (e.g. *The Sun Also Rises*, *Northanger Abbey*, *Lord of the Rings*), or the students could simply draw plotlines for the ozobots to follow and have interpretive actions.

Standards

Primary Content Area Standards:

10.RL.1: Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

10.RL.2: Determine a theme or central idea of a text and analyze in detail 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.

10.W.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.

> 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.

10.W.6: Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

10.SL.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.

Supporting Content Area Standards:

U.S. I.7.4: Students will use current events to evaluate the implications of the Civil War and Reconstruction for contemporary American life.

Computer Science Standards

9/10.CS.3: Develop guidelines that communicate systematic troubleshooting strategies that others can use to identify and fix errors.

9/10.AP.5: Identify and collaboratively suggest changes to an application's design using feedback from a variety of users.

Resources & Supplies

VIDEO TUTORIAL

[insert actual video here]

MATERIALS

- butcher paper, markers, construction paper

TOOLS

- Tablets, Ozobots, Color Code chart

ATTACHMENTS

Student Handout

Lesson Slides

Assessment Rubric

SUPPORTING LINKS

[HYPER-LINK TO VIDEO TUTORIAL. INSERT VIDEO INTO MULTIPLE PLACES/PLATFORMS]

[HYPER-LINK TO WORD BANK K-5 OR 6-12]

[HYPER-LINK TO MANAGEMENT TIPS FOR WORKING WITH ROBOTICS]

MANAGEMENT TRICKS

- In order for Ozobot to work, it needs to be calibrated. To do this, draw black, filled-in circle about the size of the Ozobot itself, then place the Ozobot on the circle
- Give each group enough time to play around with the Ozobot, and figure out how it works, how to draw the lines, and how to work out bugs in the bot.
- Give each member of the group a chance to handle the Ozobot.

- Don't use black to draw the background details in the map (i.e. use a different color to draw State lines)

DIFFERENTIATION

- Quotes could be provided for students to use.
- A handful of codes could be provided to choose from instead of the entire code sheet.

Assessment

ASSESSMENT STRATEGIES:

FORMATIVE ASSESSMENT: Testing, feedback, and redesign provide excellent opportunities for formative assessment. Circulate the classroom as students work, assessing their use of the Ozobots, teamwork, and any other relevant skills you wish to focus on. Check in on their understanding of the novel, including the timeline, central ideas or themes, etc.

FINAL FORMATIVE ASSESSMENT: In small groups, code an Ozobot to follow and interpret Huck Finn's journey throughout the novel. The ozobot's path should contain at least 6 unique "movements" to portray Huck's journey. Provide a 1½ - 2 pg. write-up explaining *why* the ozobot made the movements that it did; provide textual evidence to justify these decisions. Students will present their ozobot/Huck journey to the class.

RUBRIC:

HuckBot Rubric

Vocabulary

Theme	Evidence	Plot
Inference	Analyze	Summary

Instructional Steps

Step 1: INTRO

DURATION: 30 minutes

- The project will be introduced to the class (before, during, or after the novel is read).



Step 2: PLAY

DURATION: 30 minutes

- Students will play with Ozobot and figure out how to program/code it.
- Give students the opportunity to learn themselves what Ozobot can do. Provide them with the Color Code chart and give a brief explanation about how to read the chart.



Step 3: BRAINSTORM

DURATION: 40 minutes

- In their groups, students will review the novel and come up with a plan for their HuckBot journey.
- They will determine the central ideas/themes of the novel, as well as identify the important events from the novel that will be included in their map.
- Students will identify “movements” that might correlate with the events they chose.



Step 4: CREATE

DURATION: 30 minutes

- On their butcher paper (or whatever paper is used for the map), students will create a map that follows the journey outlined in the novel and reflects what they decided as a group.
    - *Have students draw their maps in pencil first so they don’t have to re-do the map.*
- Students will finalize their HuckBot map - finish up any details, redrawing code, Ozobot movements, etc.



Step 5: WRITING

DURATION: 40 minutes

- Students will work on their paper that will accompany their map. In 1 ½ - 2 pages, they will elaborate on their choices for their project, and provide textual evidence to support their choices.
    - *This can be done at home or in-class.*



Step 6: SHARE

DURATION: 40 minutes

- Students will be given time in class to present their finalized project. Students should take turns explaining their map to the class.
