

Bouncing Bobble-ito!

Skippyjon Jones in the Dog House Lesson Plan Jacki Dull

Grade Level: 3rd

Time Allotment: Two 45 minute sessions

Learning Objective: The student will design and create a bobble head in a small group which will represent Skippyjon Jones' foe using the design brief for direction and guidance.

Teacher Information:

1. Read Skippyjon Jones in the Dog House by Judy Schachner in a whole group setting. Discuss the main character, what he is and what he wants to be, and his mission. Discuss that the other Chihuahuas need Skippyjon's help to defeat the Bobble-ito, but we never see what the Bobble-ito looks like. (Do not show the last page of the story until everyone has finished their Bobble-itos.)** Ask for reasons why the author may not have wanted us to know more about the Bobble-ito's appearance. Ask them to close their eyes and picture the Bobble-ito in their minds. Ask what Bobble-ito's head may do. Show examples of bobble heads if needed.
 2. Group the children in 4's.
 3. Hand out design brief and read over together. Quickly review simple machines. Discuss materials that may be used. Discuss safe use of tools. Answer questions about materials and directions.
 4. Show rubric to students and explain the various sections.
 5. Hand out portfolios and have students brainstorm and fill them in.
 6. Students will begin their designs. Remind them to refer to their portfolios and rubrics.
- **7. After everyone finishes their designs, show the last page of the story and have them complete 6 on their portfolio sheet.

Tools: Scissors, hole punch, rulers, pencil, markers, crayons, colored pencils

Materials: 5 craft sticks, 5 brads, glue, 12 inches of masking tape, unlimited recycled materials such as cardboard tubes, chip cans, plastic drink bottles, empty thread spools, 2 sheets of construction paper, 12 inches of yarn, 4 chenille stems, beads, buttons

VA SOLS: Science

3.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations in which

- a) observations are made and are repeated to ensure accuracy;
- b) predictions are formulated using a variety of sources of information;
- j) inferences are made and conclusions are drawn;
- l) models are designed and built; and
- m) current applications are used to reinforce science concepts.

3.2 The student will investigate and understand simple machines and their uses. Key concepts include

- a) purpose and function of simple machines;
- b) types of simple machines;

English

3.1 The student will use effective communication skills in group activities.

- a) Listen attentively by making eye contact, facing the speaker, asking questions, and summarizing what is said.
- b) Ask and respond to questions from teachers and other group members.
- c) Explain what has been learned.
- d) Use language appropriate for context.
- e) Increase listening and speaking vocabularies.

3.5 The student will read and demonstrate comprehension of fictional text and poetry.

- c) Make, confirm, or revise predictions
- d) Compare and contrast settings, characters, and events.
- g) Draw conclusions about text.

Math

3.7 The student will estimate and use U.S. Customary and metric units to measure

- a) length to the nearest $\frac{1}{2}$ inch, inch, foot, yard, centimeter, and meter;

STL Standards:

Standard 8: Students will develop an understanding of the attributes of design.

3-5 Benchmarks

- C. The design process is a purposeful method of planning practical solutions to problems.
- D. Requirements for a design include such factors as the desired elements and features of a product or system or the limits that are placed on the design.

Standard 9: Students will develop an understanding of engineering design.

3-5 Benchmarks

- C. The engineering design process involves defining a problem, generating ideas, selecting a solution, testing the solution(s), making the item, evaluating it, and presenting the results.
- D. When designing an object, it is important to be creative and consider all ideas.
- E. Models are used to communicate and test design ideas and processes.

Standard 10: Students will develop an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.

3-5 Benchmarks

- C. Troubleshooting is a way of finding out why something does not work so that it can be fixed.
- D. Invention and innovation are creative ways to turn ideas into real things.
- E. The process of experimentation, which is common in science, can also be used to solve technological problems.

Standard 11: Students will develop the abilities to apply the design process.

3-5 Benchmarks

- D. Identify and collect information about everyday problems that can be solved by technology, and generate ideas and requirements of solving a problem.
- E. The process of designing involves presenting some possible solutions in visual form and then selecting the best solutions from many.
- F. Test and evaluate the solutions for the design process.
- G. Improve the design solutions.

Standard 12: Students will develop the abilities to use and maintain technological products and systems.

3-5 Benchmarks

- D. Follow step-by-step directions to assemble a product.
- E. Select and safely use tools, products, and systems for specific tasks.
- G. Use common symbols, such as numbers and words, to communicate key ideas.

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Skippyjon Jones in the Dog House Design brief

Jacki Dull

Background: Skippyjon Jones is in trouble again! His mama isn't happy and neither are the little Chihuahuas living in his closet. He must save them from the Bobble-ito, but how can he when he doesn't know what it looks like?

Challenge: You have the opportunity to design and create the Bobble-ito so that Skippyjon knows what to look for in the dark attic of the Chihuahuas. You will make sure its head moves using some type of simple machine. It must be at least 8 inches tall, stand on its own, and be neatly decorated.

Criteria: Must be at least 8 inches tall
Must stand on own
Head must move using a simple machine
Must be neat

Materials: 5 craft sticks, 5 brads, glue, 12 inches of masking tape, unlimited recycled materials such as cardboard tubes, chip cans, plastic drink bottles, empty thread spools, 2 sheets of construction paper, 12 inches of yarn, 4 chenille stems, beads, buttons

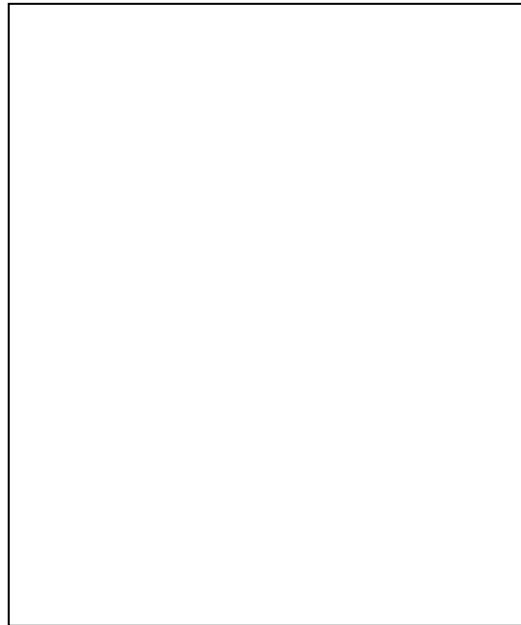
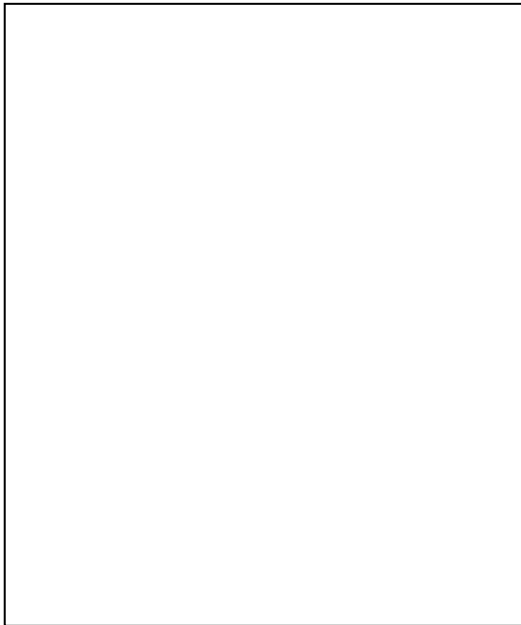
Tools: Scissors, hole punch, rulers, pencil, markers, crayons, colored pencils

Standards: Science 3.1 and 3.2, Math 3.7, English 3.1 and 3.5, STL 8-12

Team Members: _____, _____,
_____, _____

1. What is the problem in your own words? _____

2. Brainstorm and sketch 2 of your ideas in the boxes below.



3. Decide with your group which solution is best and create it.

4. Test your design and answer these questions

| | | |
|--|-----|----|
| Did you use only the provided materials? | Yes | No |
| Is your Bobble-ito at least 8 inches tall? | Yes | No |
| Does it stand on its own? | Yes | No |
| Does its head move with a simple machine | Yes | No |
| Is it neat? | Yes | No |

5. Evaluate your solution and tell me if you would change any of it. Why or why not?

6. At the end of the story we find out what the Bobble-ito looks like. Compare it to the one you created.

Rubric for **Bouncing Bobble-ito!**

Jacki Dull

| Criteria Assessed | 4-Meets criteria | 3-Almost there! Meets most of criteria | 2-Needs improvement Meets some of the criteria | 1-Attempted but we need to talk |
|--|------------------|---|---|---------------------------------|
| Restates problem | | | | |
| Sketches 2 ideas | | | | |
| Evaluated solution | | | | |
| Wrote prediction | | | | |
| Polite to team members | | | | |
| Gave members a chance to express opinions | | | | |
| Helped create and build design | | | | |
| Must be at least 8 inches tall | | | | |
| Head moves with simple machine | | | | |
| Must stand on own | | | | |
| Must be neat | | | | |
| Must be able to explain design to class | | | | |
| Share something that was difficult about design with class | | | | |
| Share changes that were made with class | | | | |