

Introduction Lesson Plan for Dewey Decimal Pop-up Card
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JMU CTA Children's Engineering class for graduate credit
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TITLE/TYPE OF LESSON: The teacher-librarian will read The Shelf Elf Helps Out by Jackie Hopkins. The students will create a Dewey Decimal Pop-up to get to know one of the ten Dewey Decimal categories. Students will use cardstock, glue, pipe cleaners, construction paper, craft sticks, markers and limited art supplies.

CONTEXT OF LESSON: The Dewey Decimal System is a classification system of nonfiction books by subject and is in most school libraries today. By third grade most students are ready to begin selecting books on topics of interest to them in the nonfiction section of the library; however, they need to learn about the organization of the Dewey Decimal System to do so. Learning the Dewey Decimal System teaches students that libraries need to be organized to access so that information can be useful.

In addition, third graders need to design and create based on their own ideas. This pop-up card allows them to imagine a product that solves a problem and design a solution. The book The Shelf Elf Helps Out is entertaining and developmentally appropriate as it ties in the story of Skoob the Shelf Elf to a project that the students create. The students will feel accomplished as they create and design their own pop-up card that can be later taken home.

LEARNING OBJECTIVES:

- Critical thinking and problem solving through design and construction
- Recall that a library is organized according to a classification system to manage mass amounts of information and design a card that helps with this system
- Design a moving part that gives an example of a book that would be found in that part of the nonfiction
- Use limited art and recycled materials to create a card that stands up and displays three facts about one of the 10 Dewey Decimal categories
- Draw three pictures that illustrate information contained in this section of the Dewey Decimal System
- Collaborate effectively with a partner to solve a learning problem in the library
- Display the category of the Dewey Decimal System on the front of the card (500s, 600s and so on)
- Orally present a project using appropriate communication techniques

MATERIALS NEEDED:

- The Shelf Elf Helps Out by Jackie Hopkins.
- 1 sheet cardstock
- glue sticks/glue
- 2 pipe cleaners
- Construction and scrap paper

- large-sized craft sticks
- markers
- limited art supplies
- scissors
- ruler/yardstick
- hole punch

TIMEFRAME: 1 hour 30 minutes

20 minutes read-aloud

10 minutes modeling of the project

10 minutes divide into partners/assign a category

20 minutes sketch ideas/check out books

20 minutes to pass out sketches and project time

20 minutes of project time/check out books

20 minutes to present

GROUP SIZE: partners

SAFETY: review the how-to of scissor and hole puncher safety

VIRGINIA STANDARDS OF LEARNING:

Language Arts 3.6 The student will continue to read and demonstrate comprehension of nonfiction texts.

- Identify the author's purpose.
- Use prior and background knowledge as context for new learning.
- Preview and use text features.
- Ask and answer questions about what is read.
- Draw conclusions based on text.
- Summarize major points found in nonfiction texts.
- Identify the main idea.
- Identify supporting details.
- Compare and contrast the characteristics of biographies and autobiographies.
- Use reading strategies to monitor comprehension throughout the reading process.
- Identify new information gained from reading.
- Read with fluency and accuracy.

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

- Listen attentively by making eye contact, facing the speaker, asking questions, and summarizing what is said.
- Ask and respond to questions from teachers and other group members.

- c) Explain what has been learned.
- d) use language appropriate for the context.
- e) Increase listening and speaking vocabularies.

AMERICAN ASSOCIATION OF SCHOOL LIBRARIANS STANDARDS FOR THE 21ST CENTURY LEARNER:

1.1.4 Find, select and evaluate appropriate sources to answer questions

3.1.2 Participate and collaborate as members of a social and intellectual network of learners.

STL:

8,9,10 design, invention and engineering

Dewey Decimal Pop-Up Design Brief

Background: The Dewey Decimal System is in most school libraries today. The DDS classifies nonfiction books by subject. If you know the DDS's 10 categories you can find a book on almost any subject. This activity will help you and a partner get to know one of the ten categories, what it contains and a sample book located in that category. Other students in the library also need practice navigating the Dewey Decimal System.

Design Challenge: Your challenge is to design a pop-up with a push and pull mechanism that explains one category of the Dewey Decimal System for display in the library. You will draw a category of the Dewey Decimal System out of a hat and be given a partner. Your pop-up card should contain three new things you learned about your category of the Dewey Decimal System, such as the 500s contains mammals, insects and dinosaurs. It should also contain a book you found in the 500s (or your category) and the book's title, author and complete call number. The sample book should not be visible to a person until they open the card and move the push/pull linkage.

Criteria:

- include the number of your Dewey Decimal category (500s, 400s and so on) on the front of the card
- Have three facts about your Dewey Decimal category on the front of the card
- Have three pictures on the front of the card about subjects covered in this Dewey Decimal category
- Have a push and pull linkage that displays a sample book from the Dewey Decimal category and includes the complete title, author and call number
- Should stand on its own like a greeting card
- Be neat and colorful

Materials:

- 1 sheet cardstock
- glue sticks/glue
- 2 fuzzy sticks
- Construction and scrap paper
- large-sized craft sticks
- markers
- limited art supplies

Tools:

- Scissors
- Ruler/yard stick
- Hole punch

1. STL Standard 8/9/10 Elements of design, invention & engineering
2. SOL LA Nonfiction 3.6, Oral Language 3.1
3. AASL Find, evaluate and select appropriate sources to answer questions. Collaborate with a partner.

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Dewey Decimal Design Brief

Dewey Decimal Pop-up Card

Name: _____

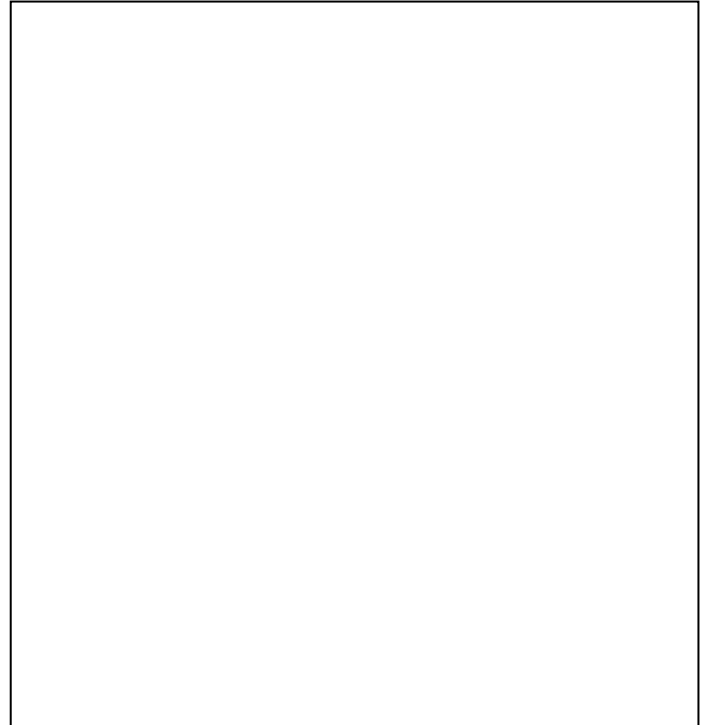
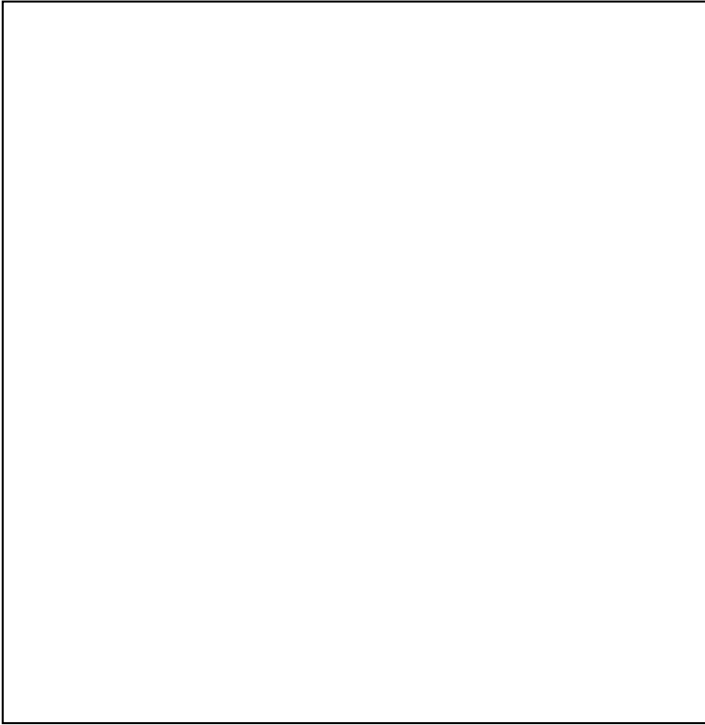
Team members:

1. What is the problem?

State the problem in your own words.

2. Brainstorm solutions.

Sketch or describe some possible solutions.



3. Create the solution you think is best.

4. Test your solution.

Does your pop-up card stand up like a greeting card? YES NO

Does your pop-up card have a push-and-pull linkage with a book on it? YES NO

Does it contain at least 3 drawings relating to your category on the front of the card? YES NO

Does it have three facts relating to your category of the Dewey Decimal System on the front of the card? YES NO

Does it have the number of your Dewey Decimal Category on the cover? YES NO

Did I collaborate well with my partner? YES NO

List several materials you used.

5. Evaluate your solution.

Was it the best solution? Would one of your other ideas have been better? Why or why not? Describe one thing you could do to improve the next pop-up card that you design.

Dewey Decimal System Pop-up Card - Rubric

Criteria Assessed	Master 3	Explorer 2	Investigator 1
Portfolio			
Restated challenge.	Used own words.	Used some of own words and some of teacher's.	Used teacher's words.
Brainstormed ideas	Multiple ideas with words and pictures recorded	Recorded information on two products	Recorded information on one product
Listed materials used	Listed two materials used.	Listed one material used.	Listed zero materials used.
Wrote paragraph about learning	Wrote three sentences with details	Wrote two sentences with details	Wrote zero sentences with details
Work and Social Skills			
Asked questions to solve any problems	Asked questions for understanding or help	Attempted to ask questions for understanding or help	Asked no questions for better understanding
Demonstrated being a good citizen by working well with other students	Demonstrated being a good citizen	Demonstrated being a good citizen some of the time.	Demonstrated being a good citizen little of the time.
Final Product			
Pop-up card stands up like a greeting card	Stands up nice and tall	Stands up but wobbles	Lays flat on the table
Contains one moving part	Contains a popsicle stick with a book on it with title, author and call number	Contains a popsicle stick with a book on it but no other information.	Contains no moving parts
Contains number of the Dewey Decimal Category on front	Contains the number in a legible, neat and colorful form	Contains the number in a legible form	Contains no number anywhere
Contains three facts about the Dewey Decimal category	Contains three facts on the front	Contains two facts on the front.	Contains one fact on the front.

Contains three drawings about the Dewey Decimal category	Contains three drawings on the front	Contains two drawings on the front	Contains one drawing on the front
Oral Presentation			
Described the final pop-up's features	Shared 3 or more features	Shared 2 features	Shared 1 or less features
Shared something that was hard and how they might change it in the future	Able to explain a difficulty and how to change it in the future	Able to explain a difficulty but not how to change it in the future	Unable to identify a difficulty