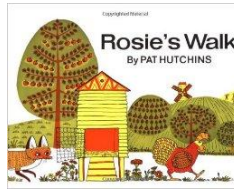


Rosie's Walk

Kindergarten

Unit 1 – A Colorful Time with Rhythm and Rhyme

Text Connections: *Rosie's Walk* by Pat Hutchins



Design Challenge Summary

Challenge: What will the students be required to do?

Construction workers are building a new playground in your neighborhood. Rosie has been invited to help them and she needs your help. Your challenge will be to build a new piece of playground equipment that Rosie could go across, around, over, passed through, and under.

Standards: What standards are addressed?

Science:

NS.1.K.1 Record observations pictorially, orally, and in writing

NS.1.K.2 Ask questions based on observations

NS.1.K.3 Conduct scientific investigations as a class and in teams

NS.1.K.4 Estimate and Measure length...using non-standard units

NS.1.K.5 Estimate relative *temperature* of matter (e.g., objects, living things, earth materials)

NS.1.K.6 Collect empirical evidence as a class

NS.1.K.7 Use age-appropriate equipment and tools in scientific investigations

NS.1.K.8 Apply appropriate rules of safety related to daily activities

NS.1.K.9 Apply lab safety rules as they relate to specific science lab activities

PS.6.K.1 Demonstrate spatial relationships, including but not limited to: over, under, left and right

Math:

Mathematical Practice Standards

Make sense of problems and persevere in solving them

K.G.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.

ELA:

W.K.3 Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.

W.K.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

SL.K.1 Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.

SL.K.3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood.

SL.K.6 Speak audibly and express thoughts, feelings, and ideas clearly.

Rosie's Walk

GT Process Skills:

Creativity/Productive Thinking

Predicting/Forecasting

Verbal or Non-verbal Communication

Problem Solving/Decision Making

Problem Solving/Planning

Judging/Evaluative Thinking

Critical Thinking

Analysis: 1.1.5 Identify attributes of a person, thing, or idea, 1.1.6 Think and observe

Problem Solving: 1.2.1 Understand a given situation (recognize the problem), 1.2.2 Define the problem

Creative Thinking

Cognitive, Creative, Fluency: 2.1.14 Accept the possibility of more than one right answer

Result: What will students know, value, and be able to do as a result of the lesson? What's the big idea?

Know and apply the engineering design loop process.

Students will be able to demonstrate spatial relationships, including, but not limited to: over, under, left and right. The students will also demonstrate knowledge of the different shapes and their names.

Assessment: What evidence will be used to determine student learning?

Did they place their pattern pieces in the correct order (what the challenge required)?

Did they follow the design loop process?

Did they discuss with their partner their design and how it meets the requirements?

Prior Knowledge/Experiences: What prior content knowledge and skills will the students need?

Experiences with the Engineering Design Loop Process

Some exposure to directional words, next to, to the right, left of, above, under, behind, in front of, beside

Summary/Connections: How will this design challenge connect with new/future learning, other content areas, real world experiences, etc.?

This lesson will help students develop problem solving skills and collaboration skills that are essential in succeeding in the 21st century. It will allow student the opportunity to transfer and apply skills from various content areas within one task.

As a summary activity, you could engage students in:

W.K.3 Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.

Extensions: Students will illustrate their new piece of playground equipment and label their pictures with directional words.

Materials/Equipment/Preparation:

What materials and equipment will students need to successfully complete this design challenge?

The Book—Rosie's Walk Pat Hutchins <https://www.youtube.com/watch?v=GTUrNXn9Iqs>

Supplies: 10 Plankos, 6 wooden cubes, 1 large cardboard tube, 1 long narrow paper towel tube

Rosie's Walk

ADDITIONAL INFORMATION

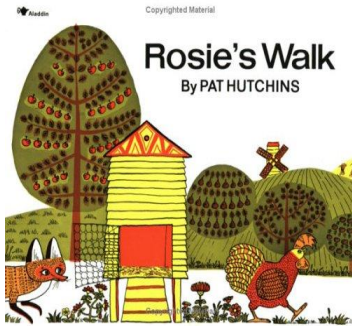
If needing to frontload and offer story for teachers to present prior to STEM lesson:

<https://www.youtube.com/watch?v=GTUrNXn9Igs>

REACH STEM Lesson Plan

G	Goal: Students will be to build a new piece of playground equipment that Rosie could go across, around, over, past, through, and under.
A	Access Prior Knowledge: Share with a partner if you have ever gone across, around, over, past, through or under something.
N	New Information: The students will become familiar with direction words: over, (above) under, next to (beside), left, right, and between as they listen to Rosie's Walk https://www.youtube.com/watch?v=GTUrNXn9Igs
A	Application: Students will create designs using specific criteria following the Engineering Design Loop.
G	Generalize the Goal: Students will tell about their new piece of playground equipment using directional words.

Rosie's Walk



***Rosie went across, around,
over, past, through, and
under many things on her
walk in the barnyard.***

Construction workers are building a new playground in your neighborhood. Rosie has been invited to help them and she needs your help. Your challenge will be to build a new piece of playground equipment that Rosie could go across, around, over, past, through, and under.

Group Supplies:

10 Plankos, 6 wooden cubes, 1 large cardboard tube, 1 long narrow paper towel tube