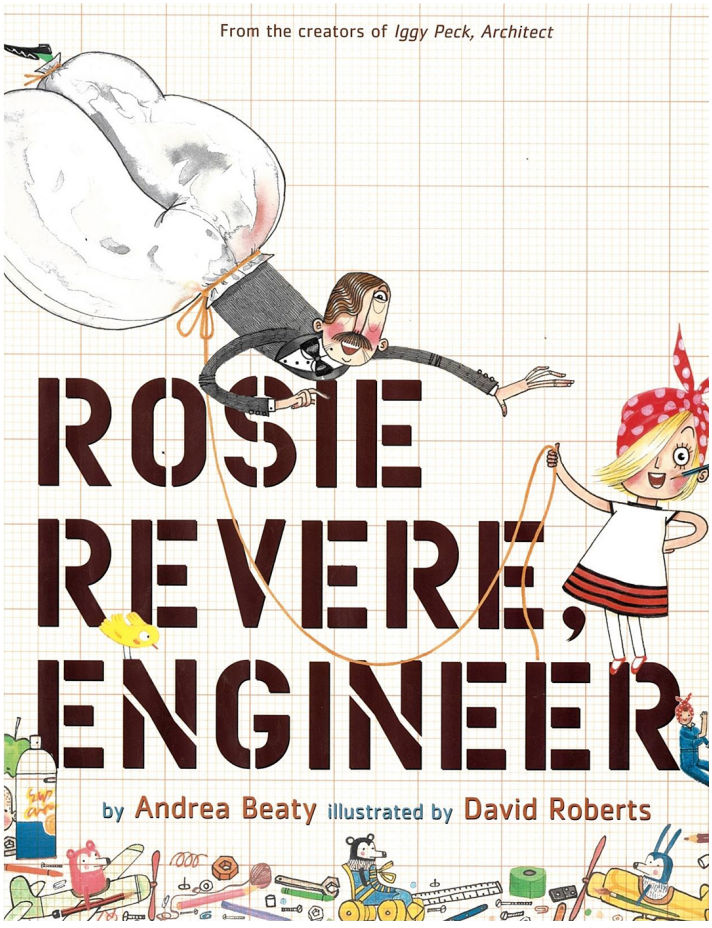
Week 7:
Rosie Revere, Engineer



NISD GT Process Standards

GT Process Standards provide guidance on what GT students should know, understand, and do as part of GT program services. Each lesson makes a connection to specific standards; however, teachers are encouraged to incorporate every standard where applicable.

I. Creative Thinking
Ability to look at problems or situations from a unique perspective through the use of imagination and/or innovative ideas

II. Critical Thinking
Ability to demonstrate clear, rational, open-minded thinking, informed by evidence

III. Depth & Complexity
Ability to dig deeper into a concept and to understand that concept with greater complexity

IV. Scholarly Inquiry & Research
Ability to interpret information that leads to new understandings and connects to the world beyond the classroom

V. Effective Communication
Ability to convey new learning through the use of written, spoken, and technological media

VI. Leadership & Responsibility
Demonstrates initiative, task commitment, and the elements of compromise and diplomacy

Scholarly Habits

- Scholars utilize varied resources
- Scholars exhibit curiosity
- Scholars demonstrate academic humility
- Scholars save ideas
- Scholars ponder the big idea
- Scholars see from different perspectives
- Scholars are always prepared
- Scholars display perseverance
- Scholars set goals
- Scholars take intellectual risks

Language of the Discipline

engineer

failure

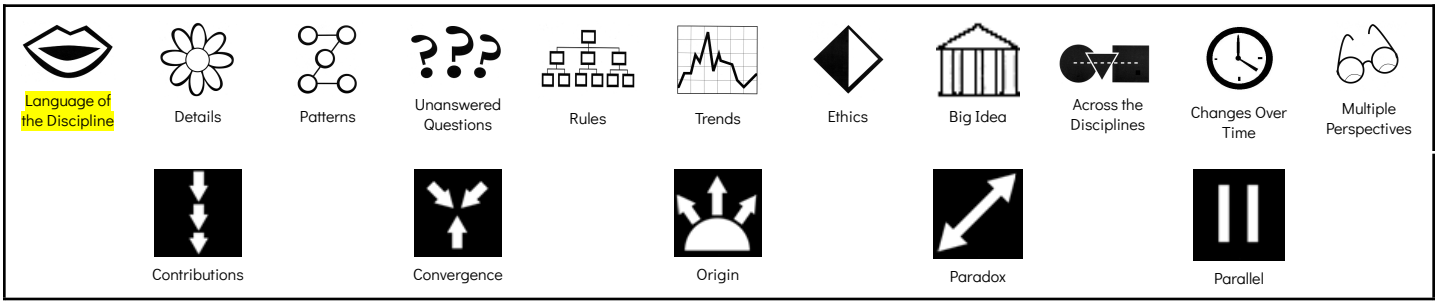
flop

intellectual risk-taking

Foundational Thinking Skills B
Grade Level: Primary

Scholarly Habit/SEL: Intellectual Risk-Taking
Skill Focus: Breakout Box

Depth and Complexity & Content Imperatives



Thinking like a Disciplinarian

Thinking like an ***engineer*** (a person who is involved in inventing, designing and maintaining a variety of machines, structures and data systems).

Essential Questions

- How can I explore different ways of thinking?
- How can I apply different ways of thinking?
- How can I utilize the elements of Depth and Complexity in my thinking?

Supported TEKS

Science
1.2B, 2.2B (plan and conduct investigations)
1.2E, 2.2E (communicate observations and provide reasons for explanations using student-generated data from simple descriptive investigations)
1.3A, 2.3A (identify and explain a problem and propose a solution)
1.3B., 2.3B (make predictions based on observable patterns)
1.3C, 2.3C (describe what scientists do)

Social Studies
1.10A (describe the components of various jobs and the characteristics of a job well performed)
1.10B (describe how specialized jobs contribute to the production of goods and services)
1.20A, 2.20A (use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution)
1.20A, 2.20B (use a decision-making process to identify a situation that requires a decision, gather information, generate options, predict outcomes, take action to implement a decision, and reflect on the effectiveness of that decision)

RLA
1.1A, 2.1A (listen actively, ask relevant questions to clarify information, and answer questions using multi-word responses)
1.1B, 2.1B (follow, restate, and give oral instructions that involve a short, related sequence of actions)
1.1C, 2.1C (share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language)
1.1D, 2.1D (work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions)

# Instructional Plan	# Date:
Rosie Revere, Engineer	
Objectives: Students will • understand the importance of taking intellectual risks. • use critical thinking skills to solve problems.	
Learning Experiences	**Resources/Materials**
Skill Stations (Slide 1) **Class Meeting (Slide 2)** **Let's Get Curious (Slide 3)** How were Lego bricks invented? • What do you notice? • What do you wonder? **Scholarly Habit: Intellectual Risk-Taking (Slides 4-5)** Introduce Intellectual Risk-Taking. Scholars challenge their minds and think outside the box. View *A Bug's Life* clip (Slide 5) and review the scholarly habit. **Read Aloud: *Rosie Revere, Engineer* (Slides 6-8)** Read aloud *Rosie Revere, Engineer.* Discuss how Rosie is a scholar. ***Rosie Revere, Engineer* Breakout (Slide 9)** In groups, students will work to solve the clues to open the Breakout Boxes. Use teacher discretion to guide students through the clues. **Reflection (Slide 10)** "With each perfect failure, they all stand and cheer..." • Why does Miss Greer's class cheer about failures? • Have you ever celebrated a failure? Why or why not? **Rosie-Copter (Slide 11):** Have each student create their own Rosie-Copter using 1 of the Copter templates. The other template will be used during the Rosie Copter Challenge.	BP_Week 7B: Lesson Slides Byrdseed.tv Puzzlements (teacher reference) *Rosie Revere, Engineer* by Andrea Beaty CP_Rosie Revere Breakout Materia... DP_Rosie Copter Challenge.pdf *Prior to class, have 1 sheet printed for each student. Cut the 2 Copter templates out.

Foundational Thinking Skills B **Scholarly Habit/SEL:** Intellectual Risk-Taking
Grade Level: Primary **Skill Focus:** Breakout Box

Closure/Culminating Product/Project
Rosie Copter Challenge (Slides 12-17)
Students will now be like Rosie Revere, Engineer to improve the Rosie-Copter. Challenge students to change the blades on Rosie's copter to make it fall to the ground as slowly as possible. Guide students through the Engineering Design Process using slides 13-17.

Extension (Slides 18-19) 
Share the Historical Note from the last page of *Rosie Revere, Engineer.* Learn more about the inspiration for this picture book - Rosie the Riveter. How does learning about Rosie the Riveter change how you see Rosie Revere?