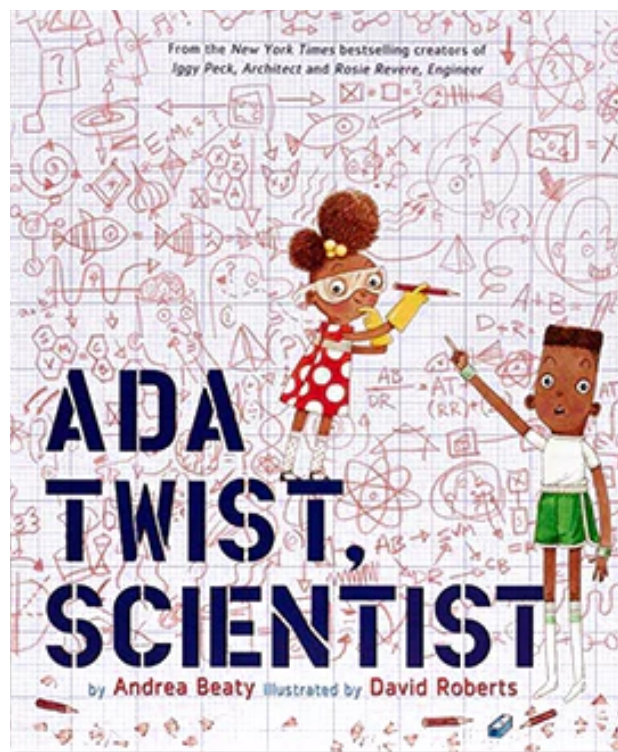


# Week 13:

## Ada Twist, Scientist



**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



Language of the Discipline

scientist

scientific method

purpose

research

hypothesis

prediction

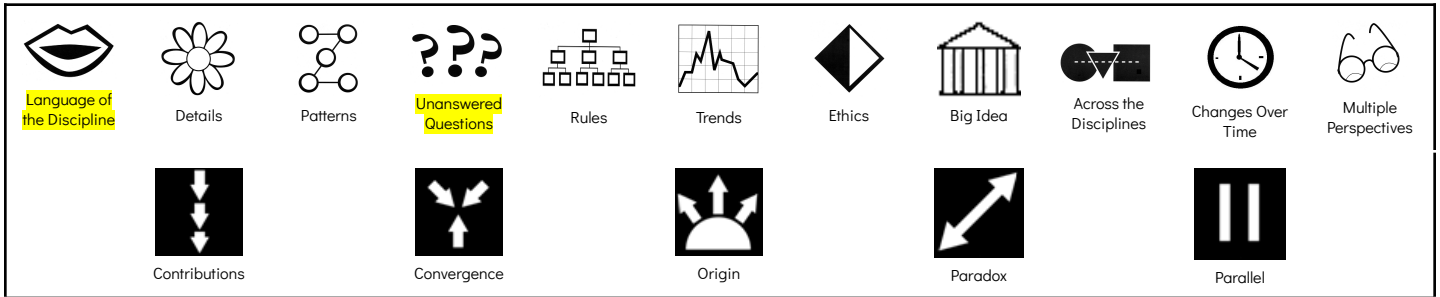
experiment

conclusion

**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

## Depth and Complexity & Content Imperatives



## Thinking like a Disciplinarian

Thinking like a *scientist* (a person who studies or is an expert in science).

## 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)

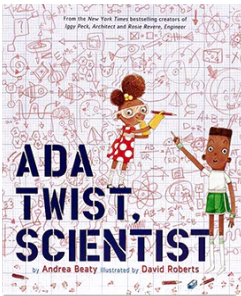
### **RLA**

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)

<h1>Instructional Plan</h1>	<h1>Date:</h1>
<p><b>Ada Twist, Scientist</b></p>	
<p><b>Objectives:</b> Students will</p> <ul style="list-style-type: none"> <li>• understand the importance of being curious.</li> <li>• use critical thinking skills to solve problems.</li> </ul>	
<p><b>Learning Experiences</b></p>	<p><b>Resources/Materials</b></p>
<p><b>Skill Stations (Slide 1)</b></p> <p><b>Class Meeting (Slide 2)</b></p> <p><b>Let's Get Curious (Slide 3)</b> What does a scientist do?</p> <ul style="list-style-type: none"> <li>• What do you notice?</li> <li>• What do you wonder?</li> </ul> <p><b>Scholarly Habit: Curiosity (Slides 4-5)</b> Review Curiosity and view <i>Wall-E</i> clip (Slide 5).</p> <p><b>Read Aloud: <i>Ada Twist, Scientist</i> (Slide 6-10)</b> Read aloud <i>Ada Twist, Scientist</i> and discuss how Ada is a scholar.</p> <ul style="list-style-type: none"> <li>• What examples from the story demonstrate that Ada is a scholar? (Slide 8)</li> <li>• Think of a time when you were curious about a problem. What did you do next? (Slide 9)</li> <li>• Ada is a scientist. She and all scientists use a process called the Scientific Method. How? (Slide 10)</li> </ul> <p><b>Scientific Method: Make Elephant Toothpaste (Slides 11-16)</b> As a class, guide students through the scientific method while making elephant toothpaste.</p> <ul style="list-style-type: none"> <li>• Purpose, Research, Hypothesis, Experiment, Conclusion</li> </ul> <p><b><i>Ada Twist, Scientist</i> Breakout (Slides 17)</b> In groups, students will work to solve the clues to open the Breakout Boxes. Use teacher discretion to guide students through the clues.</p>	<p>BP_Week 13B: Lesson Slides</p> <p><a href="https://www.byrdseed.tv/puzzlements">Byrdseed.tv Puzzlements</a> (teacher reference)</p> <p><i>Ada Twist, Scientist</i> by Andrea Beaty</p>  <p>Supplies Needed: hydrogen peroxide, dish soap, empty water bottle, 2 packets of yeast, small cup, measuring cups, tablespoon</p> <p>CP_Ada Twist Breakout Materials</p>

**Closure/Culminating Product/Project/Reflection (Slide 18)**

What are you curious about? What action can you take to find the answer to your question?

**Extension (Slide 19)**

View [Chemical Reactions in Action](#). Discuss what makes them curious from the video and any Unanswered Questions that they might have.

