Title of Book: **Iggy Beck, Architect**
Author/Illustrator: **Andrea Beaty/David Roberts**
Publisher/Year: **Abrams Books for Young Readers, New York/ 2007**
ISBN: **978-081091106**

Grade Levels for Recommended Use: 6th

TEKS:

6.2 Scientific investigation and reasoning. The student uses scientific practices during laboratory and field investigations. The student is expected to:

(B) design and implement experimental investigations by making observations, asking well defined questions, formulating testable hypotheses, and using appropriate equipment and technology;

Brief Summary: Iggy has one passion: building. His parents are proud of his fabulous creations, though they're sometimes surprised by his materials—who could forget the tower he built of dirty diapers? When his second-grade teacher declares her dislike of architecture, Iggy faces a challenge.

Materials needed:

- For the build
    - Styrofoam/plastic cups (2 per group)
    - Rulers or precut painter's tape
    - Three Sour Patch Kids (bridge must hold them up)
    - Mini Marshmallow
    - Pretzel Sticks
- To brainstorm/sketch ideas
    - Pencils/Pens
    - Paper
- Reflection Paper

Suggested Activity:

1. Review contact and non-contact forces using Google Slides presentation and discussion questions in presenter notes

2. Read "Iggy Peck" out loud to the class
3. Pause during reading to have students identify types of forces acting on Iggy's buildings
4. Distribute materials for bridge building activity
5. Have students brainstorm bridge design on paper
6. Set up two cups 6-12 inches apart for each student/group
7. Give 10 minutes for students to construct bridge between the cups
8. After 10 minutes, have students test bridge by adding weights (sour patch kids)
9. Conduct gallery walk for students to observe different bridge designs and forces
10. Lead reflection discussion:
    A. What worked well and what didn't in bridge designs?
    B. What would you do differently next time after seeing effects of different forces?
11. Extension Activity: Have students add to their build for an additional five minutes to see who's can hold the most weight. Have students analyze the forces keeping the winning bridge up the longest.

Reference:

Alicea, Mr. (2023). *Counting on Katherine: How Katherine Johnson saved Apollo 13 read aloud* [Video file]. YouTube. https://youtu.be/OyDHAWDI70Q?si=oCxlKmP6t5t8hdcr

Delacour, E. (2023). *The Angles* [Google slides]. Slidesgo. https://slidesgo.com/theme/the-angles#search-angles&position-3&results-33&rs=search

Adapted By: Alison McEwin (2023)

Name:
Period:

Oh no!

These sour children are stranded and need to get to the other side!

Build a bridge using the provided materials to help them cross.

You must be able to balance three children on the bridge at the end of the time without them falling or your bridge collapsing.

Pre – Sketch

Design your bridge.

Figure 1: Reflection Page 1

Name:
Period:

How confident were you in your build on a scale of 1-10
Draw your bridge in the provided space.
Draw the forces that were acting on your bridge? (don't forget gravity) *There were many forces acting the bridge. One example was*
What did you see other groups do differently? *I observed*
If you had to make one change when building your bridge again what would you do differently? *One change I would make*

Figure 2: Reflection Page 2