

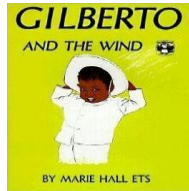


# Stability Challenge



## Standards:

ATL.IC.PS.1 - 6  
 ATL.EP.PS.1 - 5  
 ATL.RPS.PS.1 - 8  
 CA.VA.PS.1 - 5  
 ELA.LS.VAU.PS.1 - 3  
 PHD.FM.PS.5, 6



### Materials:

- *Gilberto And The Wind*
- Beautiful Stuff (include a variety of lighter material like paper towel rolls, plastic cups, foam blocks, Kapla blocks etc.)
- tape
- clipboards
- paper
- writing utensils
- images of structures resource
- images of children's *Block Towers*, Unit 1
- fan and/or hair dryer

### Vocabulary:

- structure: something built
- stability/stable: not easy to move
- sturdy: strong
- topple: fall over
- results

**Preparation:** Set up materials.

### Intro to Centers:

"In *Gilberto And The Wind*, the wind blew Gilberto's balloon, and the gate that he sat on. What do you notice?"

"What else did the wind blow in *Gilberto and the Wind*?"

"Today in Blocks, you can use Beautiful Stuff to build **stable structures** that the wind can't **topple**."

"After you build your **structure**, test its **stability** using these materials. I'm going to test this **structure**. How **sturdy**--strong--was it? How can I record my **results**?"

*Show illustrations.*

*Children respond.*

*Children respond.*

*Show Beautiful Stuff.*

*Build simple structure.*

*Show blow-dryer and/or fan. Model testing.*

*Children respond.*



**During Centers:**

Encourage children to create plans before building their structures. Encourage children to collaborate, i.e., one child could draw the plan and another child builds the structure. Encourage children to illustrate and label their structures. Support children in using measurement vocabulary to describe their structures, i.e., “Which structure is taller, \_\_\_\_’s or \_\_\_\_’s? How do you know?”, “Which structure is longer, \_\_\_\_’s or \_\_\_\_’s? How do you know?” Encourage children to make predictions and record results of stability testing. Compare and contrast the Beautiful Stuff that children are testing to the objects in *Gilberto and the Wind*.

**Guiding Questions during Centers:**

- How does the position (closer, farther away) and/or the velocity (faster, slower) of the wind source, affect your structure?
- Why do you think your building tipped over?
- How can you improve your structure so the wind won’t blow it over?
- Why do you think this material will be useful to create a stable structure?

**Thinking & Feedback:** Invite children to share their processes. Encourage children to describe the challenges they might have encountered.

**Documentation:** Collect samples of the children’s work as well as photographs and/or video of their process; use the documentation to launch a discussion during Thinking and Feedback.

**Provocation:**

If there is construction happening in the neighborhood, visit the site with children and invite them to sketch and photograph what they notice about materials, design, process, etc.

Encourage children to think about the structure of their school, and what about the construction makes their school a stable structure.

Invite an architect or construction worker to the classroom to speak to the class about the design/construction process.