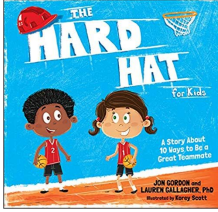


## Literacy-Based STEAM Activity: The Hard Hat for Kids

<b>Grade Level:</b> K-5 <b>Book:</b> <a href="#">The Hard Hat for Kids</a> By Jon Gordon and Lauren Gallagher		<b>Time:</b> 2 - 3 Class Periods	<b>Topic/Theme:</b> <ul style="list-style-type: none"><li>• Teamwork</li><li>• Programming</li><li>• Force</li><li>• Angles</li><li>• Distance</li></ul>
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**Lesson Objective:** Using “WE BEFORE ME” teamwork, students will program a robot to make baskets with a launcher.

### Materials:

- KIBO with Free Throw accessory
- Tubs, baskets, or cups for “baskets”
- Launch items ( foam balls, paper, etc.)
- Meter tapes (optional)
- [WE BEFORE ME poster](#) (optional)  
<http://bit.ly/hardhatposter>

### Pre-Lesson Suggestion

- Basic programming with Kibo.
- Classroom rules and procedures for working in groups.
- Work station areas for groups.

### Steps:

- 1) Read [The Hard Hat for Kids](#) with the whole class.
- 2) Students share ideas about themes of the book - emphasize teamwork.
- 3) Go over “WE BEFORE ME”.
- 4) Using “WE BEFORE ME, students collaborate in groups on a plan for programming KIBO to shoot baskets. Ex. What code blocks to use? How to set up the robot and launcher?
- 5) Discuss the variables involved in shooting a basket: angle, force, and distance.
- 6) Students work in groups to program their robots.
- 7) Possible 2nd day to improve their code and launch device.
- 8) Share out (whole class, small group, gallery walk style, etc.) Groups can share what they learned, successes, and difficulties.