





The Walker

Name(s): _____

Date: _____

NGSS GOALS	 BRONZE	 SILVER	 GOLD	 PLATINUM
1. Student work related to this Crosscutting Concept: In this project, we built a walker and investigated three different leg settings to test our walker's speed and climbing ability.				
Structure and Function: Analyze many complex designed structures and systems to determine how they function.	<ul style="list-style-type: none"> We made predictions and measurements for our walker to walk 50 cm using at least two leg settings given on our Student Worksheet. <input type="checkbox"/>	<ul style="list-style-type: none"> We met Bronze. We completed predictions and measurements for our walker to walk 50 cm using all three leg settings. <input type="checkbox"/>	<ul style="list-style-type: none"> We met Silver. We created a testing area for our walker to climb over hills. We completed predictions and measurements using all three leg settings. <input type="checkbox"/>	<ul style="list-style-type: none"> We met Gold. We proposed and created at least one new leg design. We compared the speed and climbing ability of our new design with the original walker. <input type="checkbox"/>
2. Student work related to this Practice: In this project, we explained what the ratchets do for our walkers. We used evidence from our experiments.				
Constructing Explanations: Construct a scientific explanation based on valid and reliable evidence obtained from student's own experiments.	<ul style="list-style-type: none"> We explained what ratchets do. Our explanation was based on at least one specific observation from our experiments. <input type="checkbox"/>	<ul style="list-style-type: none"> We met Bronze. Our explanation was based on at least two specific observations from our experiments. <input type="checkbox"/>	<ul style="list-style-type: none"> We met Silver. Observed the walker with and without the ratchets. We used our observations of how the walker moved without a ratchet in our explanation. <input type="checkbox"/>	<ul style="list-style-type: none"> We met Gold. We shared with our teacher or classmates new ideas for using the ratchet idea in other LEGO® inventions. <input type="checkbox"/>
3. Student work related to this Practice: In this project, we labeled our favorite Walker design.				
Obtaining, Evaluating, and Communicating Information: Integrate qualitative and/or quantitative information in written text with visual displays to clarify claims and findings.	<ul style="list-style-type: none"> We labeled one important part of our walker design. <input type="checkbox"/>	<ul style="list-style-type: none"> We met Bronze. We labeled two more important parts of our walker design. We explained how one of the important parts of our walker works. <input type="checkbox"/>	<ul style="list-style-type: none"> We met Silver. We explained how all three important parts of our walker work. <input type="checkbox"/>	<ul style="list-style-type: none"> We met Gold. We created and shared our diagram and explanation with classmates. We revised our work and made it more clear for our classmates to understand. <input type="checkbox"/>
Notes:				