

Merry-go-round



The Assignment





Parks often contain equipment to be used by children – swings, slides, climbing frames and merry-go-rounds. They are exciting, exhilarating and fun. It is important that the safety features do not spoil the excitement and it is important that the excitement isn't too dangerous.

Your task is to design and build a powered merry-go-round that is safe and exciting to ride for at least two children.

Problem Solving Activity: _____

Name(s): _____

Date: _____

	 BRONZE	 SILVER	 GOLD	 PLATINUM
<p>GOALS</p> <p>Design Brief: Understand the problem, develop prototypes to solve it, test those prototypes and revise your design to make it better.</p>	<ul style="list-style-type: none"> • Our design met the goals or criteria defined by the activity. <p style="text-align: center;"><input type="checkbox"/></p>	<ul style="list-style-type: none"> • We met Bronze • We tested our prototype multiple times. • We made at least one improvement. <p style="text-align: center;"><input type="checkbox"/></p>	<ul style="list-style-type: none"> • We met Silver • We made at least two improvements. <p style="text-align: center;"><input type="checkbox"/></p>	<ul style="list-style-type: none"> • We met Gold • We tested at least two different designs. • We picked the best design, tested it, and made several improvements. <p style="text-align: center;"><input type="checkbox"/></p>
<p>Creativity: Come up with inventive and creative solutions to problems. Consider multiple solutions.</p>	<ul style="list-style-type: none"> • We started the activity and have at least one possible solution that looks reasonable. <p style="text-align: center;"><input type="checkbox"/></p>	<ul style="list-style-type: none"> • We brainstormed two to three ideas. • We built a working model to solve the problem. <p style="text-align: center;"><input type="checkbox"/></p>	<ul style="list-style-type: none"> • We brainstormed more than three ideas. • We built an effective model to solve the problem. <p style="text-align: center;"><input type="checkbox"/></p>	<ul style="list-style-type: none"> • We brainstormed many ideas. • We built and tested prototypes for at least two ideas. • We built an original and effective model that solves the problem. <p style="text-align: center;"><input type="checkbox"/></p>
<p>Collaboration: Work is shared effectively and the team encourages and helps each other.</p>	<ul style="list-style-type: none"> • We sometimes worked together well but some team members did more work than others or we needed help from the teacher to resolve some disagreements. <p style="text-align: center;"><input type="checkbox"/></p>	<ul style="list-style-type: none"> • We generally worked together well, providing help and support to each other. • The work was shared fairly evenly among the group members. <p style="text-align: center;"><input type="checkbox"/></p>	<ul style="list-style-type: none"> • We worked together well, providing help and support to each other. • The work tasks were shared evenly. • We addressed issues that arose. <p style="text-align: center;"><input type="checkbox"/></p>	<ul style="list-style-type: none"> • We worked together unusually well, overcoming unexpected obstacles by working together as a team. • We actively helped and supported each other. • We addressed issues that arose with honest, constructive feedback. <p style="text-align: center;"><input type="checkbox"/></p>

Notes: