

# Learning Targets Science Olympiad

Learning Target	Applicable Events
1. Design and conduct scientific investigations. (Identify the dependent and independent variables, as well as controls. Tell what tools are needed, how measurements will be recorded and how much data is needed to support the claim.)	Experimental Design
2. Use tools and equipment specific to scientific investigations.	Experimental Design Metric Mastery
3. Use metric measurement devices in an investigation.	Experimental Design Rotor Egg Drop Junkyard Challenge Towers Metric Mastery Elastic Launched Glider
4. Construct appropriate charts and graphs from data that you collected as well as from data that is given to you.	Experimental Design Compute This
5. Analyze information in charts and graphs to formulate conclusions.	Experimental Design Compute This
6. Demonstrate science concepts through various illustrations, performances, pieces of writing, models, exhibits and activities.	Picture This Write it, Do it Rotor Egg Drop Mission Possible Towers Rotor Egg Drop Elastic Launched Glider
7. Undertake a design project, engaging in the design cycle, to construct and/or implement a solution that meets specific criteria.	Rotor Egg Drop Junkyard Challenge Towers Mission Possible Elastic Launched Glider Bottle Rocket
8. Apply scientific ideas or principles to design a device that meets specific criteria.	Rotor Egg Drop Junkyard Challenge Towers Mission Possible Elastic Launched Glider Bottle Rocket
9. Construct and defend an explanation or conclusion that includes multiple sources of evidence. (observations, numerical data, graphs, scientific principles, etc.)	Experimental Design
10. Use patterns to identify cause and effect relationships.	Experimental Design Elastic Launched Glider
11. Evaluate competing design solutions based on given criteria.	Rotor Egg Drop Junkyard Challenge Towers Mission Possible Elastic Launched Glider Bottle Rocket
12. Gather, read and synthesize information from multiple sources to answer a question or solve a problem. Assess the credibility, accuracy and possible bias of each source.	Rotor Egg Drop Compute This Mission Possible Elastic Launched Glider

