

Question 1	Response 1
Do the 4th/5th graders work together to take one test or do they take individual tests?	One test per grade. The 3 students from same grade work together to complete one test.
can you explain what the balance scale is use for again?	The balance scale is used to make that the rockets are of equal weight. You can use them with the whole rocket or just the clay tip. You make one item (rocket or clay) put them on one side, and weigh the subsequent tips on the other side. If they all balance against the same item, and were weighed in the same manner, you have confidence the masses are the same. Note the document "Coaching the Physics On Target" has some discussion of the balance. This material is fair game for test questions.
How far are the rockets to be launched/could we see the diagram of the launch again?	Approximate distance range will be given approximately 3 weeks before the tournament. The coaches are advised to practice 8 - 11 meters ranges.
Are you able to share an average score obtained by students? Or what average winner scores are per grade?	<u>That info is on the wesos website. https://wesoscience.org/wp-content/uploads/2025/05/WESO-2025-Event-Score-Summary-Statistics.pdf</u>
Can you describe a little more how the rocket launcher works? Also an example or description of what a rocket looks like?	Launcher has a tube that is lifted and dropped for force (higher drop height = more force). The weighted rod depresses a piston, which causes ir to be pushed out through the launch tube. (metal tube that straw goes on). The end of the straw must be sealed (with clay). Resulting air pushes the rocket off the launch tube. So the key variables are drop height and launch angle. There is also an o-ring on this tube that be adjusted to change the distance over which the launch force acts. Missle should have a tip (to seal) and may or may not have wings/fins. Rrocket/Missile length and mass are other key variables for the kids to explor. More information on the On Target event page: https://wesoscience.org/on-target/
So the three kids take one test together and answer the questions together and can help each other out?	Yes, they can.

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Can you clarify again on what scale we're allowed to bring to the event? We don't need to use a balance scale and can use a battery powered digital scale in its place?	Yes, you may use the spoons, you can use a balance, or you can bring a digital scale. WESO will have some of each available, but teams are encouraged to bring their own spoons, scales or balances, as well as their own launchers. Please mark all with school names.
What are the note cards used for? And did you say students can bring them to the competition?	They are for making wings/fins which are optional. They can make a guide to help their launch. They can also be used to make notes on the firing range. Students can not bring index cards or any other notes with them. They will have index cards available to them at the build table to use as they wish.
what are the launch, measuring, and aiming guides that are referenced?	The guides have pictures on it, showing how to build up the rocket. You will have to learn how to make the adjustments by practicing with the 8m, 9m, 10m range, for example. They may make a guide or reference fin, a guide to help with o-ring placement or angle adjustment (there is a protractor on launcher). Whatever tool that will help that can be made from index cards, they are free to make at the build table.
Do schools have rocket launchers for each grade?	Probably not. We provide one rocket launcher to each school. Some may have more launchers from past years of materials distribution (>5 years ago), as we have given out rocket launchers at different times, or may have purchased additional launchers through Pitsco.
are measuring spoons just kitchen measuring spoons (1/4 tsp, 1/2 tsp, etc)?	Yes. Small ones are generally more appropriate.
Are the plastic fins in the picture on your slide provided by WESO or do we purchase them ourselves?	Fins can not be made out of plastic. You must use the index cards for fins. Any fins that you may use will be cut off by the student from index cards during the build period.
Are "Materials provided by WESO" provided for all practices or just the competition?	We provide straws, clay and index cards to prepare for the event. Depending on your team size, you may need to purchase additional supplies. Supplies you are issued are the same materials that they will use at the event

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<p>In the beginning of the slide show it says 30 minutes and "building" slide says no strict time limit. Could you please explain this?</p>	<p>The event has to be completed with 30 minutes but the amount of time they take to build the rockets is not strict . A team of one student takes longer to build rockets than a team of 3 students. Students are encouraged to move through the build and launch process, but we work with the student to ensure that they have enough time.</p>
<p>Does the team make all 6 rockets at the same time, or do they make 1-2, launch them, and then make the remaining rockets after seeing how the first few do?</p>	<p>They do all 6 before launching. Before they approach their firing line, they need their score sheet, their 6 rockets, and the launcher. Ideally all six rockets were manufactured the same and any adjustments are those made to the launch parameters. They have to get their scoring sheet after launching the six rockets. Then they put away their school's launcher for the next grade's use.</p>