

Maria is a 6th grader who is visiting The Tech on a school field trip. She appears uncomfortable with approaching the test rig. She spends a long time working on her device while watching other members of her class group test theirs. When she does bring her device to be tested, it ends up falling apart during the test.

David is a 7 year old who is visiting The Tech with his mom and older brother, Aiden. He grabs a bunch of building materials and immediately gets to work, telling his family and staff who check in that he knows *exactly* how he's going to solve the problem. David's older brother and mom try to give him some suggestions, but he doesn't take their advice. Both brothers bring up their devices to test. Aiden's works, but David's does not. David seems visibly frustrated by this and says he wants to quit.

Riley and Taylor are 3rd graders visiting The Tech on a field trip and are working together on their device. They bring up a device that is clearly not holding together very well. When they test, the device immediately falls apart. They point at the materials and laugh, suggesting that they purposely made something that would fail for fun.

(Physics of Roller Coasters) Jasmine, Ryan, Jose, and Victoria are second graders excitedly building their rollercoaster and working fabulously as a team. They test their coaster over and over until they get it to work 10 times in a row! When it comes time to share their final design, their marble is unable to travel even partially up the loop and falls out of the track. The team looks devastated as their coaster had performed well in all their testing.

(Physics of Roller Coasters) Danny, Quinn, Juniper, and Rosa are fourth graders having difficulty with their roller coaster. They have built their structure and attached their track, but are visibly frustrated and having difficulty getting the marble to stay on the track. A parent chaperone has come over to help the team, but has taken over all construction leaving the team looking deflated and bored.

(Engineering for Earthquakes) Sixth graders, Paul, Albert, Vi, and Chloe all have their own ideas for their structure and have decided to each build their parts the way they want and will then combine their pieces at the end of the building time. With two minutes left in building time, they realize they are unable to agree on how to connect their pieces and are left with four individual pieces, none of which meet the constraints or criteria of the challenge.



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