

Forces of Motion

Grade Level: 3rd grade

Curriculum Topic: Science- Forces of Motion

Standard: 3-PS2-2 Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.

3-PS2-1 Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.

Tools: Dash by Wonder Workshop with Launcher and Google Sheets

Synopsis: Students will be taught about forces of motion and how balanced and unbalanced forces effect the objects motion. Students will do an activity to see this lesson brought to life. We will use the Dash robot by Wonder Workshop with the launcher accessory. The game we will play with the Dashes in the classroom will be battle ship. Students will be divided in teams of five and partner up with another team to play the game. Students will have 2 cups as targets. Each team will set up cups on there side. Each team will set up their launcher on the Dash. Students will then have a chart where they predict how far their dash has to be to hit the 2 targets in feet/inches using a tape measure. They will write their prediction down. Then they will test their prediction by measuring where their dash should be coded to go to hit a target. For example, the team may predict that their dash has to be 3 feet away to hit the first target. They put the dash at 3 ft and launch. If it hits the target then it's a good prediction and if it doesn't work, they will predict once more. They will take note of the prediction, test it out and write down their results. They will continue the process until they have found a good distance their dash must be to hit the target. Once they find the right distance, they will measure the distance the Dash launched to the distance the target was hit. This will help them compare their predictions to their results. Students will then go on Google sheets to enter their predictions and results. This will teach students how force and motion go hand in hand.