

## Objective

By the end of this lesson, you will be able to understand and apply the concepts of Gravitrax, a fun marble run game, and build your own tracks.

## Materials and Prep

- Gravitrax Starter Set
- Marbles
- Building instructions (included in the set)

Before starting this lesson, make sure you have familiarized yourself with the Gravitrax building components and how they work.

## Activities

- Activity 1: Build the Basic Track

Follow the building instructions to create a simple track using the Gravitrax components. Start with a straight track and add a few curves and slopes.

- Activity 2: Experiment with Different Track Configurations

Once you have built the basic track, start experimenting with different configurations. Try adding loops, jumps, and switches to see how they affect the path of the marble.

- Activity 3: Create an Obstacle Course

Challenge yourself by creating an obstacle course using various components. Make it as challenging as you can while still allowing the marble to reach the end of the track.

- Activity 4: Record and Analyze Results

Keep track of your experiments and record the results. Analyze how different track configurations affect the speed and movement of the marble.

## Talking Points

- Gravitrax is a fun marble run game where you can create your own tracks.
- Marbles roll down the tracks due to the force of gravity.
- Curves and slopes change the direction and speed of the marble.
- Loops allow the marble to go upside down and continue on the track.
- Jumps make the marble fly through the air before landing on another track.
- Switches can change the direction of the marble's path.
- When creating an obstacle course, make sure the marble can still reach the end of the track.