



## Exploring Ramps and Pathways



# Questions to Ask

## Attention Focusing Questions

- Where do you notice the marble coming off the tracks?
- What have you noticed about the way this object moves down the track along the pathway?

## Measuring and Counting Questions

- How far did the marble travel/roll across the floor after it left the ramp?
- How far did the marble fly off the end before it landed on the floor/surface?
- How high do you need to elevate the start of your ramp to make the marble travel all the way to this target?

## Comparison Questions

- How do these objects move differently on the track/pathway?
- Which marble travels the farthest off the end of the ramp?
- Is there a difference when you use a big marble versus a small marble? Heavy versus light marble?
- Which supports create a sturdier base?
- Which surface allows the marble to move the best/travel more smoothly/go farther?
- How does the marble travel differently when you make the start of you ramp higher? Lower?

## Action Questions

- What do you think you could do with these things?
- What happens if you release the marble somewhere else on the ramp?
- What happens if you make your ramp higher? Lower?
- What happens if you add or take away a block to the support?
- What if you tried a bigger or smaller marble?

### **Problem-Posing Questions**

- How can you make the marble move along the flat track without touching or blowing on the marble?
- How can you get the marble to move farther off the ramp?
- Can you make the marble turn a corner?
- Are there any other ways you can make the marble turn the corner?
- What can you do to make the marble knock down this target?
- How can you make the marble go faster? Slower?
- Can you build a ramp within this confined space?
- Can you make the marble go up hill?
- Can you build a ramp so that the marble has to jump from one part of the track to another?

### **Reasoning Questions**

- I wonder why the marble comes off the track right here?
- Why do you think the marble won't go onto the next track?