



Greetings,

We are starting a new science unit in class called *How Can We Use Patterns to Predict Motion?* The unit leads up to a science challenge. Your child will investigate how magnets affect the normal back-and-forth motion of a swing. Could magnet–swing interactions make a swing ride more fun? Your child’s at-home and out-of-school experiences can play an essential role in supporting the development of their own and their classmates’ understanding of how the world works. As I work on planning the lessons, I would appreciate some ideas about how you and your child may have already experienced our new topic. Your feedback will help me incorporate these experiences into the unit.

If you can, please respond to as many of the following questions as you are comfortable answering. Rest assured that your child does not have to have relevant previous experiences to be successful with the unit.

1. What are some repeating patterns of motion your child has observed or experienced? For example, have they heard the pendulum of a clock swing back and forth or watched oval-track racing?
2. What changes in recycling practices or in the use of glass, plastic, or other recyclables have family members noticed over time?

In addition to sharing your family’s experiences with me, I encourage you to discuss topics related to this science unit with your child. This can help them make sense of what they are doing in school. Here are some examples of questions to ask at home:

1. Did you watch a video of a tug-of-war game? Would you explain to me why a tug-of-war game could end in different ways?
2. If we went to the park to swing on the swing set together, what might make us swing at different speeds?
3. Are you figuring out how to separate different types of materials from the trash? How can you pick up and move different objects without touching them with your hands?

You can learn more about this science unit at [ScienceEducation.si.edu/motion-phenomenon](https://ScienceEducation.si.edu/motion-phenomenon). Please feel free to ask me questions. I want to work with you to make sure your child gets the most out of this unit.

Thank you.