

Big Idea: What are some ways we describe motion?

How does the description of an object's position and motion depend on a reference point?

Complete your required anchor phenomena activity, the assigned reading, and one other option, then complete the google form at the end of this learning board.

**Anchor Phenomena Activity****REQUIRED**

MS-PS2.A, 3.A, 3.B, & 3.C

Amusement Park Physics: Through the use of a smart device watch the following 3:27 minute VR roller coaster ride. (Feel free to allow your body to respond accordingly...these might make great tik tok videos.)

https://www.youtube.com/watch?v=sonjwl_VzZA

If you do not have a smart device, consider any amusement park/carnival ride you may have ridden on in the past.

After watching the video, answer the following questions in a google doc & share with me, or record on page 120 of your science notebook:

- What do you already know that would help you explain the motion of the rollercoaster?
- What do you need to learn, or what questions do you want answered in order for you to design an amusement park ride of your own?

Physical Science Textbook- Read: "Position and Motion" pages 8-14 **REQUIRED**

As You Read:

- define key vocabulary (found on textbook page 8) on page 121 in your science notebook.
- Reflect on the questions below as you read.
 - How do you think reference points and reference directions play a roll in the thrill amusement park/carnival rides?
 - Can you think of any other application where reference points might be used to simulate motion?
 - How are motion and energy related?

Use a google doc, or write your responses on page 121 of your science notebook for options 1,3, or 4.

MiniLab: (Option 1)

- Complete the MiniLab on page 11 of your textbook.
- I know that many of you do not have metersticks or metric measuring tools at home. You may use a household measuring tape and measure in inches instead.

Legends of Learning Playlist: (Option 2)

- login.legendsoflearning.com
- teacher code: HANSON8
- click the assignment named: Reference Frames and Scale Units 2020"

This activity must be done on a computer or chromebook. It cannot be completed on a smartphone or iPad.

Complete Lesson Review: (Option 3)

- Complete Lesson 1 Review on page 14 1-8.

Watch Back to the Future Ride @ Universal Studios (Option 4)

- <https://www.youtube.com/watch?v=Mhlof8sw9ns>
- Write a CER paragraph about how the ride developers used reference points to simulate position, motion, and displacement.

Google Form Link:

https://docs.google.com/forms/d/e/1FAIpQLSd94Oa,NQ-T2sn57Af7dsFI7eG4xm-aKoFLXYXRRO7fqWWqPtg/viewform?usp=sf_link