

QUESTIONS TO FOCUS RESEARCH

Summary Questions

1. What three pieces of information must you give another person when you are trying to describe the location or position of an object?

- ✖ *Direction*

- ✖ *Time*

- ✖ *Distance*

2. How can you tell something is moving, or has a change in position?

- ✖ *You must have a reference point.*

- ✖ *A reference point allows you to compare the object in motion to something that is NOT moving or changing position.*

3. To what do you compare a moving object and what are you assuming about it?

- ✖ *We are comparing the object to something that is NOT moving.*

- ✖ *We assume that our reference point is not moving.*

4. How does your observation of another object's motion depend on your motion? Describe different scenarios and how motion will appear from different perspectives.

- ✖ *Your motion must be different than the other objects motion to clearly detect changes or variances.*

- ✖ *Sample Scenario 1: Your car and another car are traveling side by side and at the same speed. You look ONLY at the car beside you and NOT at any reference point. You might start to think you're not moving.*

5. How will understanding motion help you in collecting data related to your bumper design?

- ✖ *Understanding speed and velocity will allow you to determine how these things affect peak force.*