

Name _____ Date _____ Period _____

Video worksheet: "How fast are you moving right now?"

CONCEPTUAL PHYSICS: UNIT 1

Directions: Answer the questions as you watch the video "How fast are you moving right now?"

YouTube: <https://www.youtube.com/watch?v=w1zvfki5ozU>

1. Are you moving right now? Explain

2. What does it mean when we say speed is "**relative**"?

3. Speeds only have meaning when they are referred to a _____.

4. Why do they say that "**rest is relative**"?

5. How fast are you moving relative to Earth's center? Is it the same everywhere on Earth?

6. Why do they say constant speed is **relative**, but change in speed is **absolute**?

7. Is rotational motion **relative** or **absolute**? How could you tell?

8. If you are pulled over for speeding, what is the **reference point** the police officer uses to judge your actual speed?

9. Name at least two **reference points** that would explain how someone travelling on a jetliner traveling at 600 miles/hour actually be traveling slower than you would be while just sitting at your desk right now?

10. Explain the following statement: “**Speed is relative**”