**MOTION & FORCES MASH-UP!**

**On your OWN sheet of paper, create the following for EACH scenario below…**

* Create a Motion Map
* Create a Position vs. Time graph
* Create a Velocity vs. Time graph
* Create a Force Diagram
* Is there an unbalanced force? Explain.
* In which direction is acceleration?

**Scenario #1**

A skydiver is descending with a constant velocity.

**Scenario #2**

Jenn’s is sitting in her car waiting for the stoplight to turn green.

**Scenario #3**

An egg is free-falling from a nest in a tree.

**Scenario #4**

Mannie is in a hot air balloon and is accelerating upward.

**Scenario #5**

Patrick is pulling a trailer in his car. The car is accelerating down Harrodsburg Road.

Draw and answer questions for the trailer.

**Scenario #6**

You are lifting a bag of sugar up at constant velocity.

**Scenario #7**

Max applies a leftward force to a book in order to accelerate it.

**Scenario #8**

Brittany is accelerating her bike on Lincoln Avenue to the left.

**Scenario #9**

A hot air balloon is tied down to keep it from accelerating upward.

**Scenario #10**

Amanda is riding her bike at a constant velocity to the right down 3rd Street.

**Scenario #11**

Caleb is riding an elevator at the hospital. Draw and answer questions for when he is on the stopped elevator.

**Scenario #12**

Caleb is riding an elevator at the hospital. Draw and answer questions for when he is moving at a constant velocity up on the elevator.