

Free Fall Day 1a

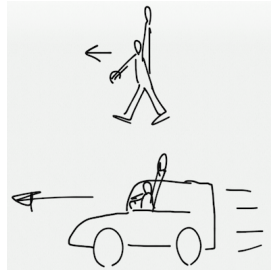
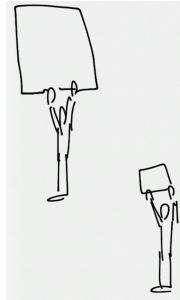
Name: _____

1. Sketch the dots from the ticker tape timer.

2. Is that: acceleration or constant speed?

3. What are three things that drag depends on?

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3. For each of the following situations, decide whether they are:

- A) Perfect Free Fall - no air drag at all.
- B) Close to Free Fall - not much air drag.
- C) Not close to Free Fall - a lot of air drag.

_____ Jumping out of an airplane with a parachute.

_____ Jumping out of an airplane with no parachute (during the first few seconds when you're not moving too fast yet.)

_____ Dropping a ball to the ground.

_____ Jumping out of a spaceship above the atmosphere.

_____ Dropping a dandelion seed.

Free Fall Day 1b

Name: _____

4. Come up with your own example of each one:

- a) Perfect Free Fall - no air drag.
- b) Close to Free Fall - not much air drag.
- c) Not close to Free Fall - a lot of air drag.

5. What is...

- a) The actual acceleration due to gravity in free fall on Earth?
- b) What will we round it to, to make calculations easy?
- c) Using the rounded number, how much speed do you gain every second in free fall here on Earth?

6. Using the rounded number, how fast would you be going (in m/s) after falling for...

- a) one second?
- b) two seconds?
- c) three seconds?
- d) ten seconds?
