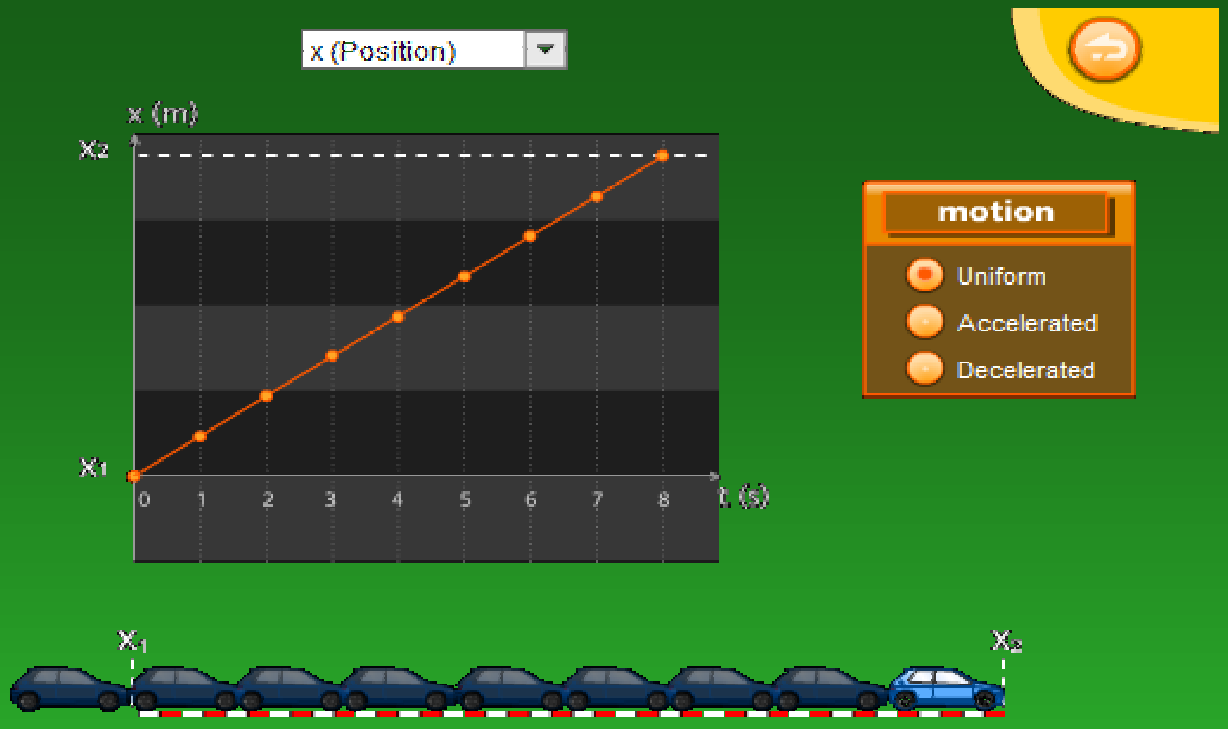
Language for Kinematics

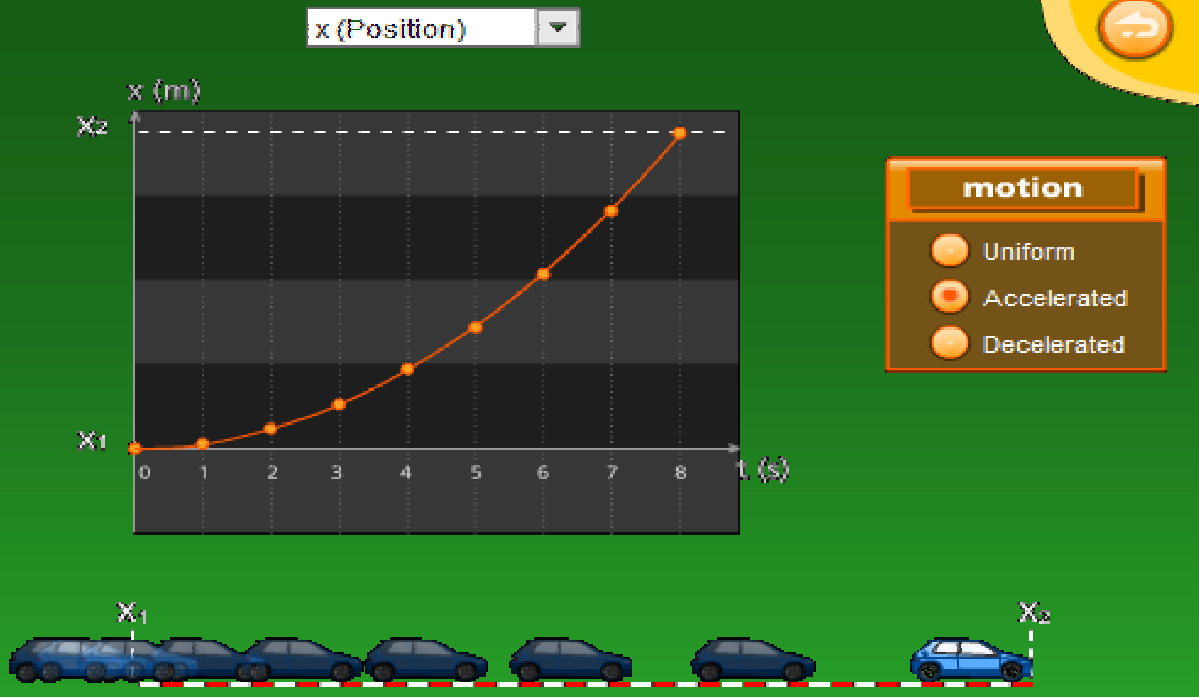
- **Describing Motion with Words.**
- **Describing Motion with Diagrams.**
- **Describing Motion with Equations**
- **Describing Motion with Graphs.**
  - **Position vs. Time Graphs**
  - **Velocity vs. Time Graphs**

Linear Motion

- **constant speed** ($a = 0$)
  - **Uniform Motion**
- **constant acceleration** ($a \neq 0$)
  - speed increases ($a > 0$)
  - speed decreases ($a < 0$)
  - Free Fall ($g = 9{,}8\ m/s^2$)



- Is there motion?
- What kind of motion? Why?
- Which is the variable and unit in the X axis?
- Which is the variable and unit in the y axis?
- What kind of graph is there? (a straight line or a curve)
- Is the speed constant or changing?
- Is there acceleration? Why?



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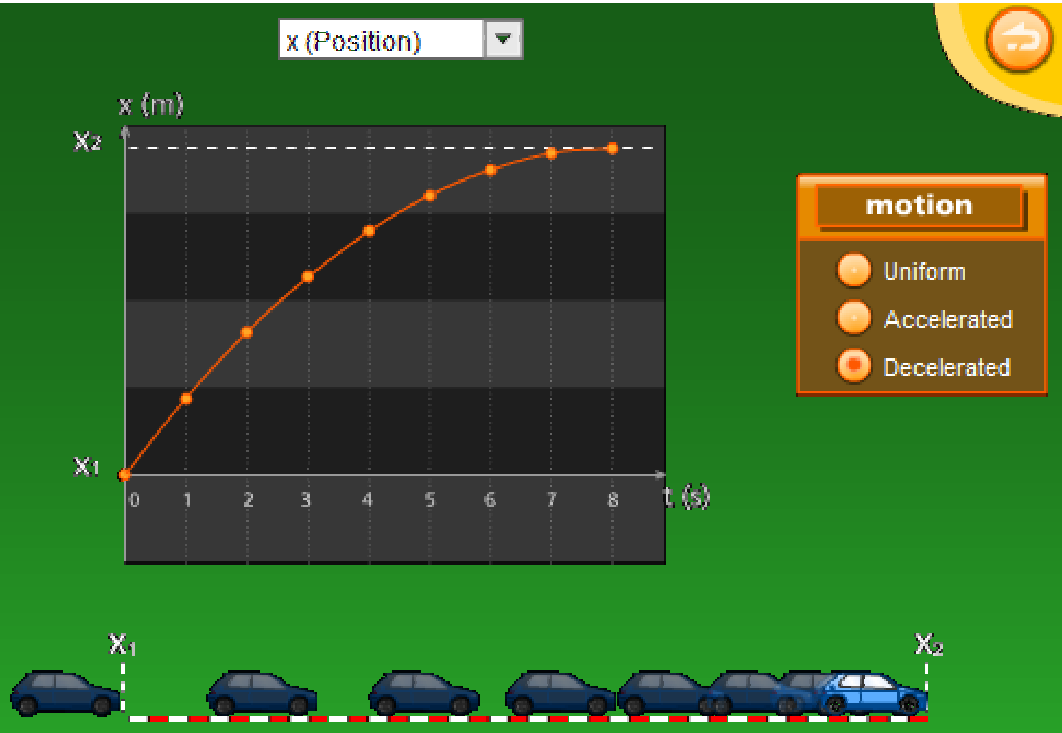

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This is a satellite falling free down to the Earth.

- Is there motion?
- What kind of motion? Why?
- Is the speed constant or changing?
- Is there acceleration? Why?
- Write down the conclusion of the plenary discussion: