

## Investigating Kinetic Energy and Mass

Open the *Force and Motion* Simulation: Open Explore mode to determine the relationship between kinetic energy and mass.

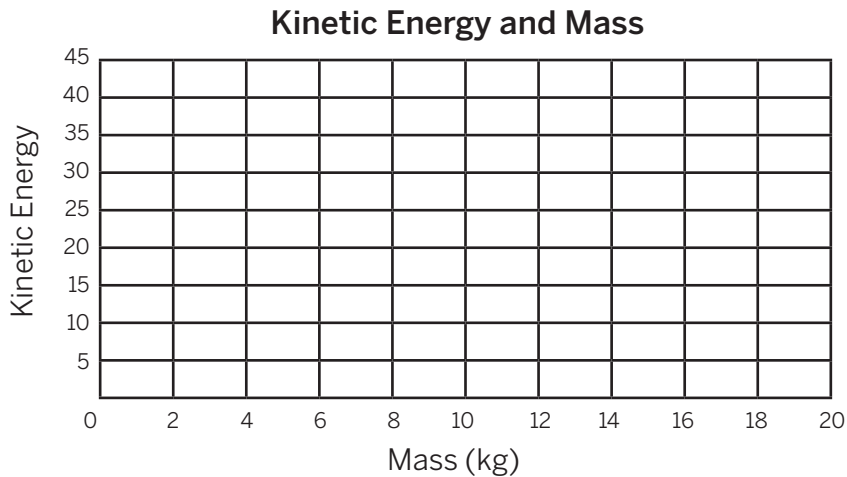
### Steps

1. In BUILD, press on the object and move the top slider to give the object a horizontal velocity of 2 cm/s.
2. Press RUN, then press ANALYZE.
3. Record the mass and kinetic energy of the object in the data table to the right.
4. Go back to BUILD, Press on the object, and then Press DELETE.
5. Drag a different object on the screen and repeat steps 1-3. Test all six objects.
6. Using your data in the data table, create a graph to show how kinetic energy depends on mass.

### Data Table

Mass (kg)	Kinetic Energy
0.25	
0.5	
1	
2	
4	
20	

### Graph



1. Describe the patterns in your graph. What is the relationship between mass and kinetic energy?

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