**Impact: Earth! – Impact Simulation**

From <http://www.purdue.edu/impactearth>

1. Fill in parameters for the object that will strike the Earth, and your location from impact site.

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| Projectile Diameter | **0.1 m to 3476 km**  Examples**:**  *School Bus 12 m*  *Humpback whale: 13.7 m*  *Apophis Asteroid: 270 m*  *Empire State Building: 381 m*  *Comet Hartley 2: 1.3 km*  *London: 44.7 km*  *US: 3538 km; Asia: 7535 km*  *Moon: 3,476 km* | a) |
| Projectile Density | **1000 to 8000 kg/m3**or choose:  **Ice, porous rock, dense rock, or iron** | b) |
| Angle of Impact | **1 degrees** (shallow, tangential) **to 90 degrees** (straight down) | c) |
| Impact Velocity | **11 km/s to 72 km/s**  Avg asteroid: 17 km/s  Avg comet: 51 km/s | d) |
| Target Type  (on Earth's surface) | **Sedimentary Rock,**  **Crystalline Rock, or**  **Water** (depth \_\_\_\_ m) | e) |
| Distance from Impact | **0 km** (site of impact) **to**  **20,000 km** (other side of Earth) | f) |

1. What do you think will happen at your location when this object strikes the Earth?
2. Based on the simulation, what happens at your location when this object strikes the Earth?