

Objects at rest remain at rest until forced to move. Objects in motion stay in motion until forced to stop (these statements describe *inertia*). Force diagrams list forces acting on objects and show the direction in which the forces are acting. Some forces require contact; others act at a distance (have *fields*).

You must **create a product** that demonstrates your understanding of these ideas. For the first two goals, you will make a pair of diagrams. For the second two, you will use various materials to show how the fields are alike and different. After I review your product, you will **explain** these ideas in an interview.)

Assessment categories:

Content:

1. Create a force diagram (poster) for an object at rest. [Relate it to inertia during interview.]
2. Create a force diagram (poster) for an object that is **changing** its speed. [Relate it to inertia during interview.]
3. Use materials to demonstrate one way gravitational and electric or magnetic fields are **similar**.
4. Use materials to demonstrate one way gravitational and electric or magnetic fields are **different**.

Habits for Success:

1. Product quality reflects proper thought and time spent. [3 point scale]
2. Focus on product work, proper handling of materials, appropriate use of technology, following directions on activities... [2 points per day]