



# iFLY Education Program Elementary School Standards Alignment

## Field Trip Activity

### Interactive Presentation:

- Identify the differences between solids and fluids. Discuss the different ways solids and fluids exert forces on objects
- Identify the forces acting on a flyer (gravity and the force of air), and determine which direction those forces are pushing or pulling on the flyer
- Observe and describe the behavior of a variety of objects in the wind tunnel. Predict which objects will fly at faster velocities and justify your predictions with evidence
- Educator leads a discussion about engineering careers, the engineering process as applied to the design of iFLY tunnels, and other applications of wind tunnels in STEM

## Standard

Next Generation Science Standards:  
3-PS2-1  
3-PS2-2  
4-PS3-1  
5-PS2-1

## LAB ACTIVITY

- Students break into small groups to investigate parachutes
- Students first build a basic parachute, then decide on an area to investigate
- Students identify one variable they want to change, describe how they will change it, and predict what effect this will have on their parachute's behavior.
- Students use measuring tapes, scales, and stopwatches in their investigations
- Students record data during their parachute launches
- Students discuss possible reasons for their results

Next Generation Science Standards:  
K-PS2-1  
K-PS2-2  
3-PS2-1  
3-5.ETS1-1  
3-5.ETS1-3  
Common Core Math:  
2.MD.A.1  
3.MD.B.4  
3.MD.C.5  
4.MD.A.3

### Post-field trip classroom activity

- Students conduct an investigation about parachutes, collecting multiple data samples
- Students plot their data on a graph
- Students use the graph to discuss the overall trend of their results

Common Core Math:  
2.MD.D.9