



iFLY Education Program
 Pennsylvania Elementary School Standards Alignment
<https://www.pdesas.org/Standard>

Field Trip Activity	Standard
<p>Interactive Presentation:</p> <ul style="list-style-type: none"> 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 	<p>Science/Tech/Engineering: 3.2.K.A1 and A5 3.2.1.A1 and A5 3.2.2.A5, 3.2.1.B1 3.2.3.A1, A2, and A5 3.2.4.A1, 3.2.3.B1, 3.2.4.B1, 3.2.5.B1, 3.4.3.A3, 3.4.4.A1-A3, 3.4.5.A1 and A, 3.4.4.B1, 3.4.4.B3, 3.4.3.C1-C3, 3.4.4.C1-C3 3.4.5.C1 and C3 3.4.3.D1, 3.4.5.D1</p>
<p>LAB ACTIVITY</p> <ul style="list-style-type: none"> 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 	<p>Science/Tech/Engineering: 3.2.K.B7, 3.2.1.B7, 3.2.2.B7, 3.2.3.B7, 3.2.4.B7, 3.2.5.B7, 3.4.4.C1, 3.4.5.D1</p> <p>Math: CC.2.3.K.A.1, CC.2.3.2.A.1 CC.2.4.K.A.1, CC.2.4.2.A.1 CC.2.3.3.A1, CC.2.4.3.A.1 CC.2.4.3.A.6</p>
<p>Post-field trip classroom activity</p> <ul style="list-style-type: none"> 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 	<p>Science/Tech/Engineering: 3.2.K.B7, 3.2.1.B7, 3.2.2.B7, 3.2.3.B7, 3.2.4.B7, 3.2.5.B7</p> <p>Math: CC.2.4.1.A.4, CC.2.4.2.A.4 CC.2.3.5.A.1, CC.2.4.3.A.4</p>