



## Education Program *Grades 11-12*

iFLY's unique vertical wind tunnel provides the perfect environment to show students how exciting STEM can be! Our Education Program has been designed by professional educators to support and enhance STEM learning in your classroom.



### **Every iFLY Field Trip includes:**

- Interactive STEM presentation, delivered by iFLY STEM Educator
- Physics demonstration in the wind tunnel
- Classroom experiment to derive students' predicted terminal velocity and compare with actual measured wind tunnel speeds
- Flying instruction & safety training
- Flying time, with one-on-one supervision from a highly-trained and certified instructor
- Pre and post-field trip activities to conduct in your classroom



“...all I can say is WOW! Best field trip in 18 years of teaching. My students couldn't stop talking about it today!”

– Raine Maggio, Austin teacher



Education Program *Grades 9-12*

iFLY field trips make STEM relevant, interesting and accessible for your students.



### **Our Learning Objectives include:**

- Increasing awareness of exciting STEM careers
- Learning how STEM is used in the real-world
- Use free-body force diagrams to depict forces acting on a skydiver
- Use graphs to describe motion of a skydiver during freefall
- Identify and analyze the variables involved in terminal velocity
- Applying engineering principles to think about tunnel design, energy efficiency, and safety factors
- Understanding variability, uncertainty, and error in experimental results

**All iFLY STEM programs are designed to align with the Physics Australian Curriculum**

#### **Unit 2: Linear Motion and Waves**

ACSPH045, ACSPH047, ACSPH048, ACSPH053, ACSPH054, ACSPH055, ACSPH058, ACSPH059, ACSPH060, ACSPH062, ACSPH063, ACSPH064

#### **Unit 3: Gravity and electromagnetism**

ACSPH081, ACSPH083, ACSPH086, ACSPH078, ACSPH093, ACSPH095, ACSPH096, ACSPH097