



STEM Academy

Our curriculum for grades 3 through 8 was designed by highly experienced STEM instructors and meets:

- Common Core State Standards - CCSS (see next page for details)
- Next Generation Science Standards - NGSS (see next page for details)

AIS STEM Academy field trips consists of the following components:

- Classroom instruction with worksheet
- In track area:
 - Kart talk
 - Solar energy talk
- Hands on learning:
 - Track walk
 - Safety briefing
 - Racing
 - Race results with lap times to 1/100 of a second
- Winner stand photos
- Lunch (optional)

AIS STEM Academy last approximately 3 hours and is available weekday mornings:

- Age & Height Requirements / Max # of Students:
 - Junior karts: Ages 8+ and at least 48" tall
 - Up to 60 students per session
 - Pro Karts: Age 13+ and at least 56" tall
 - Up to 120 students per session
 - Mixed age groups (50% Junior Kart, 50% Pro Kart):
 - Up to 120 students per session



To reserve a date for your field trip please complete the online form at the bottom of this webpage: AccelerateSpeed.com/Field-Trips or call (866) 778-7223 ext 1

Next Generation Science Standards



Motion and Stability, Forces Standards

MS-PS2-1

Apply Newton's Third Law to design a solution to a problem involving the motion of two colliding objects.

MS-PS2-2

Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object.

Energy Standards

MS-PS3-1

Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and to the speed of an object.

MS-PS3-2

Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.

Core State Standards - Math



[CCSS.MATH.CONTENT.4.G.A.1](#)

Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

[CCSS.MATH.CONTENT.7.G.A.2](#)

Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.

[CCSS.MATH.CONTENT.8.G.A.5](#)

Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles.

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[CCSS.ELA-LITERACY.RF.3-5.4](#)

Read with sufficient accuracy and fluency to support comprehension.

[CCSS.ELA-LITERACY.RI.3-5.4](#)

Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.

[CCSS.ELA-LITERACY.SL.3-5.1](#)

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

[CCSS.ELA-LITERACY.L.6.4](#)

Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies.

[CCSS.ELA-LITERACY.L.6.5](#)

Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

[CCSS.ELA-LITERACY.L.6.6](#)

Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

[CCSS.ELA-LITERACY.L.7.5](#)

Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

[CCSS.ELA-LITERACY.L.7.6](#)

Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

[CCSS.ELA-LITERACY.L.8.5](#)

Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

[CCSS.ELA-LITERACY.L.8.6](#)

Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

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