



FLYING DISC

Grades: 6-8



Students: 30

Contact Hours: 12+ hours

This program includes 12 days of activities, each designed to last about one hour. Use one lesson a day, clump them together into larger blocks or break them apart to be worked in throughout the course of a school year.

Recommended Settings:

- Summer camps
- Classrooms looking for hands-on STEM
- After-school programs

Pricing Options:

- Complete Program: \$595⁰⁰
- Curriculum Printed Copy: \$295^{00*}
- Curriculum Digital Download: \$129^{00*}

Highlights:

- Great set of reusable materials: flying discs, flying rings, flying cylinders, boomerangs and cones
- Uses discussion, hands-on experimentation, design challenges and games to explore abstract physics concepts and hone flying disc skills

Curriculum Topics:

- Day 1: History of Flying Discs
- Day 2: Physics of Flight
- Day 3: Flying Rings
- Day 4: Flying Cylinders
- Day 5: Boomerangs
- Day 6: Paper Airplane Design Challenge
- Day 7: Throwing and Catching
- Day 8: Pivoting
- Day 9: Balancing
- Day 10: Disc Golf
- Day 11: Ultimate Disc
- Day 12: Four Way Disc Madness

Materials:

Flying Disc comes with an Instructor Guide, a digital curriculum download and all the supplies needed for 12 days of activities:

- Boomerangs: 5
- Flying cylinders: 5
- Flying discs: 15
- Flying rings: 5
- Masking tape (60 yd): 2
- Paper plates: 75
- Plastic cones: 12
- Scissors: 15
- Sterilite tub (18 gal): 1
- White copy paper (8.5" x 11"): 500

*Print and digital curriculum download comes with Instructor Guide only.

Assesment:

Formative or summative assessment in the Check for Understanding section at the end of each lesson.

Logistics & Storage:

Each kit is shipped in a sturdy tub for easy access and storage throughout the year.

Shipping & Availability:

Contact a PCS STEAM Program Specialist for shipping options.

Product Orientation:

Free product orientation webinar is available upon request on purchases of \$500 or more.





Alignment & Standards

Habits of Mind:

16 thinking habits developed by Art Costa and Bena Kallick to empower students to succeed in a 21st-century learning environment.

- Applying Past Knowledge to New Situations
- Creating, Imagining, Innovating
- Gathering Data Through All The Senses
- Managing Impulsivity
- Persisting
- Questioning and Posing Problems
- Remaining Open to Continuous Learning
- Responding with Wonderment and Awe
- Striving for Accuracy
- Taking Responsible Risks
- Thinking and Communicating with Clarity and Precision
- Thinking Flexibly
- Thinking Interdependently

Next Generation Science Standards*

- NGSS 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.
- NGSS MS-PS3-5. Construct, use, and present arguments to support the claim that when the kinetic energy of an object changes, energy is transferred to or from the object.
- NGSS MS-ETS1-1. Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.
- NGSS MS-ETS1-2. Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.
- NGSS MS-ETS1-3. Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.
- NGSS MS-ETS1-4. Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.

* NGSS is a registered trademark of Achieve. Neither Achieve nor the lead states and partners that developed the Next Generation Science Standards were involved in the production of this product, and do not endorse it.

21st Century Skills:

A set of widely-applicable abilities essential for success in the information age.

- Communication and Collaboration
- Creativity and Innovation
- Critical Thinking and Problem Solving
- Flexibility and Adaptability
- Initiative and Self-Direction
- Productivity and Accountability
- Social and Cross-Cultural Skills

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