

Fulton Science Academy

Academic Teams Policies and Procedures

What are Academic Teams

Academic Teams compete in extracurricular competitions against other schools. They include:

- ▶ Science Olympiad
- ▶ Math Olympiad
- ▶ Model UN
- ▶ Tech Fair/Media Festival
- ▶ Robotics
- ▶ Future Cities
- ▶ Destination Imagination

What you should know:

- ▶ Most middle school and high school students will compete on at least one team
- ▶ Students can participate in a maximum of two teams. Exception: Students cannot do both Robotics and Science Olympiad??HS??
- ▶ Remember, a student cannot be on two teams that meet at the same time

Your behavior matters . . .

- Academic Teams Policies & Procedures attached to the last page of the application.
- All school rules are in effect for all Academic Team activities whether on or off campus.
- Disrespect of teammates, coaches, and/or property will not be tolerated.
- Be considerate of your coaches – we are volunteering to help you!
- You can be removed from the team for poor behavior!

Parents and students must sign the Policies and Procedures, so please read these carefully.

Science Olympiad Team Presentation 2016–2017

Fulton Science Academy

What is Science Olympiad?

- ▶ National program in which students learn science through active, hands-on participation, with an emphasis on problem solving and team building skills.
- ▶ Some events require knowledge of science facts and concepts, while others rely on scientific processes, skills, or applications, so students with varying skills can participate.
- ▶ Not a trivia competition. Students must apply their knowledge.
- ▶ The cooperation, collaboration, team spirit and good sportsmanship that students develop will be beneficial throughout their lives.

Science Olympiad Highlights

- ▶ FSA has a long history of success in Science Olympiad
- ▶ Qualified and competed in five National Tournaments (2007, 2009, 2010, 2012, 2015 and 2016)
- ▶ Last year's highlights:
 - 2nd Place at Regional Tournament
 - 2nd Place at State Tournament
 - 25th Place at National Tournament
 - 1st place in Write It, Do It
 - Placed in top 10 in six events

Insert mira and sophie here

2016–2017 Goal

To place first or second in the State Science Olympiad Tournament in order to qualify for the

National Science Olympiad Tournament

to be held May 19–20 at the **Wright State University** in Dayton, Ohio.

Science Olympiad Management Team

▶ Head Coaches -

- **Mrs. Walsh** began coaching in 2007. Her son placed 5th in Fossils at Nationals in 2009 and 2nd in 2010. Her Meteorology team placed 4th at Nationals in 2012.
 - **Mrs. Stathos** began coaching in 2004. Her son placed 5th in Don't Bug Me (with Mrs. Butler's son) at Nationals in 2007.
- ▶ Ms. Larson, Ms. Fichter, Mr. Parlak, and Parent and Community Volunteers will serve as event coaches.

Tentative Dates:

- ▶ Midwest Coaches Clinic – October 22-22 Centerville, OH
- ▶ FSA Invitational – November 12 Alpharetta, Ga
- ▶ **Chattahoochee Invitational Tournament: Decemeber 10**
- ▶ Friendship Christian Invitational: January 7 or 14 (Lebanon, TN)??
- ▶ **Dodgen Invitational: January 21 (Marietta, GA)**
- ▶ Wright State Invitational: January 27-29 (Dayton, OH)
- ▶ **Regional: February TBA – University of North Georgia (Gainesville, GA)**
- ▶ **State: March TBA - Location TBA????**
- ▶ National: May 18-21 – Wright State University – (Dayton, OH)

Dates in Yellow are Required for students who want to make the state team

Duke TIP

- ▶ 7th Graders who plan to take the SAT or ACT for admission to the Duke Talent Identification Program should register for the **December 3 ACT** test date (1st choice) The January and February test dates conflict with Science Olympiad tournaments. *Students who register for the January or February test dates will jeopardize their opportunity to qualify for the State Science Olympiad team.*

Competition Team Size:

- ▶ FSA will take 1 to 3 teams to Invitational tournaments.
- ▶ FSA will have 1 High School Team this year.
- ▶ Only **two** teams per school can compete in the MS Regional tournament.
- ▶ Only **one** team per school can compete at the State tournament.
- ▶ **Up to** 15 students per team will compete in the 23 events
- ▶ Middle School Team: 6th through **9th** graders, maximum of 5 ninth graders.
- ▶ **Not everyone will participate at regional, state, or national level!**

Competition Teams will be chosen by looking at:

1. Results from practice tests, invitational and regional tournaments
2. Competition schedule conflicts
3. Attendance at weekly event meetings and Saturday studies
4. Attitude, spirit, leadership
5. Behavior – see Academic Teams Policies and Procedures
6. **Team success takes priority over individual success**

Before You Commit:

- ▶ Dues for Science Olympiad are \$100 per student and do not cover travel and tournament expenses.
- ▶ The time commitment for Science Olympiad is **equivalent to participating in 3-5** afterschool clubs. Each event meets once per week.
- ▶ We recommend that Science Olympiad students not participate in other academic teams.
- ▶ If you choose to participate in more than one Academic Team (Model UN, Math Olympiad, Tech Fair, Destination Imagination), expect conflicts in competition dates.
- ▶ You cannot do Science Olympiad AND Robotics.
- ▶ Students must select a **minimum of 4** academic (i.e., not building) events to study.
- ▶ Competitive Olympians should expect to spend **10** or more hours per week working on their events, including weekly event meetings, Saturday studies and independent study time
- ▶ Science Olympiad is a **Team competition**. No event winners move on to the next level of competition unless the whole team qualifies

Keep in mind:

Cramming is not an effective strategy for Science Olympiad!

- ❖ In order to be selected to compete in an event, you must demonstrate some level of mastery.
- ❖ Just attending Science Olympiad classes is not enough to ensure a competition slot.
- ❖ The most successful students are those who:
 - Are not over-committed with other activities
 - Have the time and motivation to study on their own .

What Can I Do for Our Team as a Parent?

Science Olympiad is a team effort. Success is much more difficult without your help!!

OUR TEAM NEEDS HELP IN FOLLOWING AREAS:

- ▶ **Event coach parents**
- ▶ Competition day volunteers
- ▶ Fundraising – Hat Day, Pizza Day, Concession stand at Tech Fair and Math Genius, etc.
- ▶ Publicity/Spirit

Who are the Coaches?

- ▶ Event coaches are teachers, parents or other adults who volunteer to assist students in understanding the rules and scientific concepts for their respective events.
- ▶ Coaches will hold practices weekly either after school and/or on Saturdays.
- ▶ Coaches do not have to be scientists or have prior experience with the subject matter.
- ▶ Consider sharing coaching responsibilities with another parent volunteer.

Division B Events (2016–2017)

- ▶ Anatomy and Physiology
- ▶ Bottle Rocket
- ▶ Crime Busters
- ▶ Disease Detectives
- ▶ Dynamic Planet
- ▶ Ecology
- ▶ Experimental Design
- ▶ Fast Facts
- ▶ Food Science
- ▶ Hovercraft
- ▶ Invasive Species
- ▶ Meteorology
- ▶ Microbe Mission
- ▶ Mission Possible
- ▶ Optics
- ▶ Reach for the Stars
- ▶ Road Scholar
- ▶ Rocks and Minerals
- ▶ Scrambler
- ▶ Towers
- ▶ Wind Power
- ▶ Wright Stuff
- ▶ Write It Do It

Yellow denotes new event for 2016-17

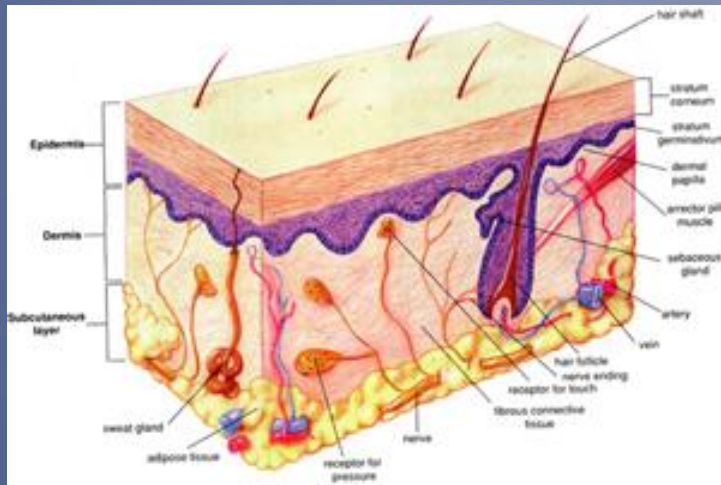
Division C Events (2016–2017)

- ▶ Anatomy and Physiology
- ▶ Astronomy
- ▶ Chem Lab
- ▶ Disease Detectives
- ▶ Dynamic Planet
- ▶ Ecology
- ▶ Electric Vehicle
- ▶ Experimental Design
- ▶ Forensics
- ▶ Game On
- ▶ Helicopters
- ▶ Hovercraft
- ▶ Hydrogeology
- ▶ Invasive Species
- ▶ Materials Science
- ▶ Microbe Mission
- ▶ Optics
- ▶ Remote Sensing
- ▶ Robot Arm
- ▶ Rocks and Minerals
- ▶ Towers
- ▶ Wind Power
- ▶ Write It Do It

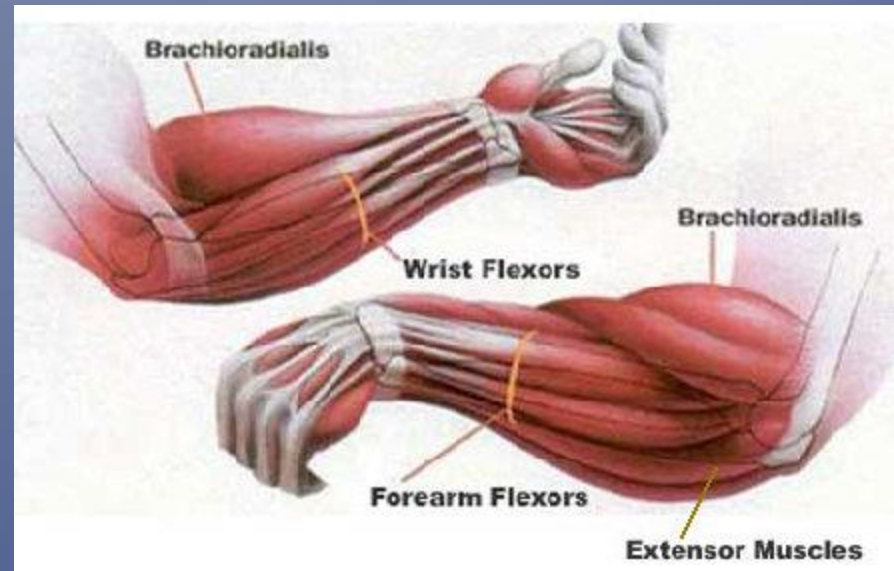
Yellow denotes new event for 2016-17



Anatomy & Physiology (Need 3 Coaches)



- ▶ This event encompasses the anatomy and physiology of the **Integumentary, Skeletal, and Muscular Systems**



Invasive Species (Mrs. Butler)



This event will test student knowledge of invasive species that are on the Official National List. Students must understand the impact these species have on the eco-system.

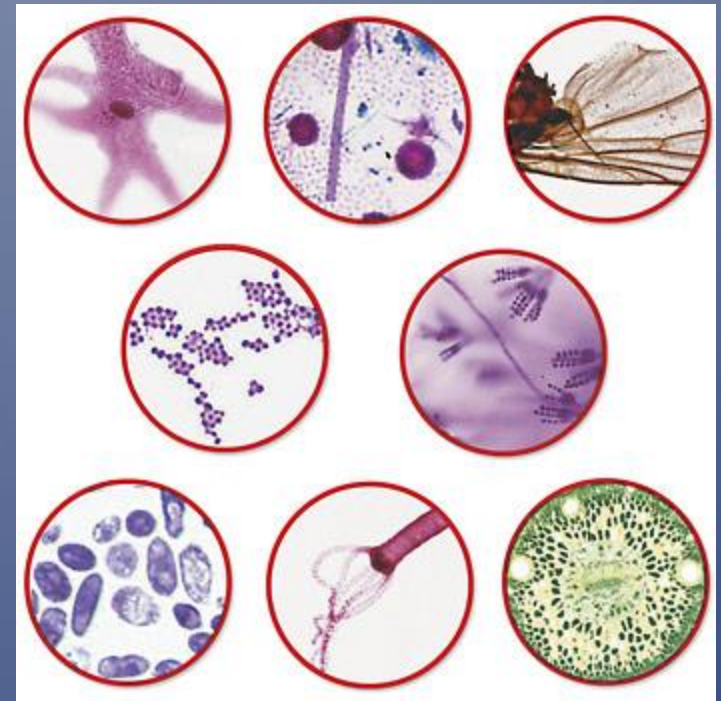


Disease Detectives (Mrs. Bhatt and Mrs. Chirumamilla

- ▶ Students will use their investigative skills in the scientific study of disease, injury, health, and disability in populations or groups of people with a focus on population growth

Bio Process Lab (Ms. Doraiswami)

- ▶ This event is a lab-oriented competition involving fundamental biological science processes



Green Generation (Ms. Larson)

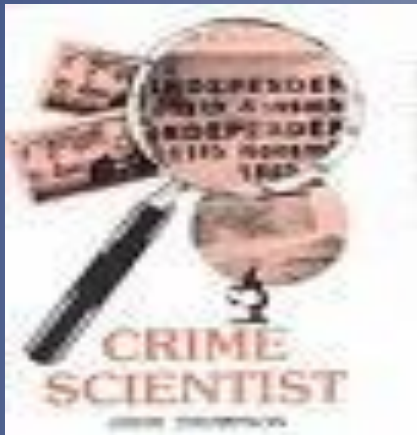
- ▶ Students will answer questions involving the history and consequences of human impact on our environment, solutions to reversing trends and sustainability concepts.



Food Science (Mrs. Crigler and Ms. Lang)



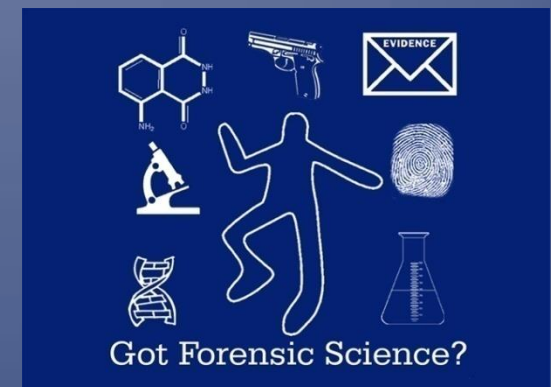
Students will study the science behind food items such as cheese, yogurt, milk, ice cream, and cottage cheese and experiment with ingredients and physical parameters to produce and analyze products.



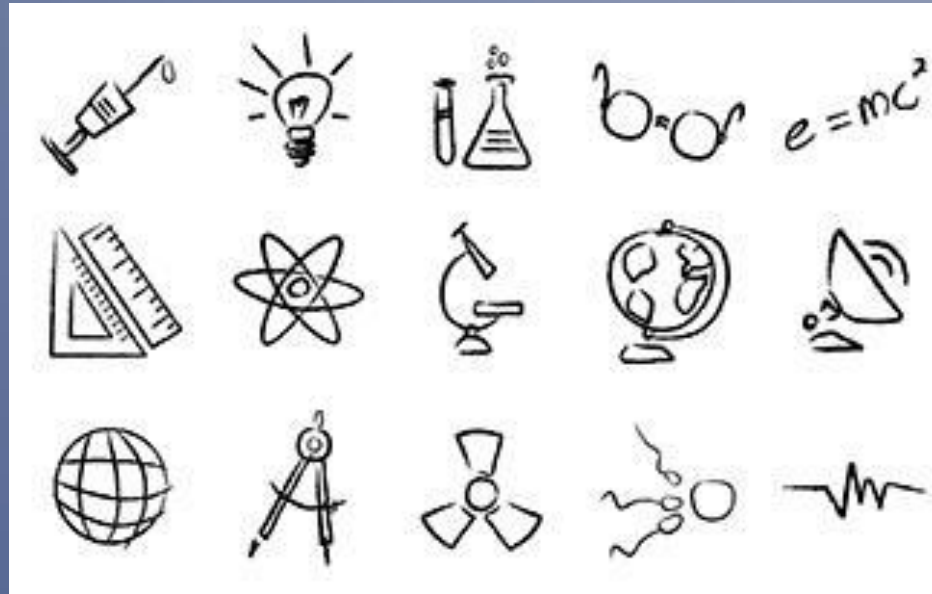
Crime Busters (Ms. Lang)



- ▶ The objective is to correctly identify the perpetrators of a mock crime by using paper chromatography and analysis of unknown solids and liquids found at the scene of a crime.
- ▶ Students may also be asked to interpret the results of DNA evidence, identify hair, fibers, polymers, shoe prints, tire treads and fingerprints.



Picture This (Ms. Fichter)



- ▶ Team members will take turns drawing pictures of a set of scientific terms or concepts while the other team members guess the term being drawn.

Experimental Design (Mrs. Stathos and Simon Wang)

- ▶ This event will determine a team's ability to design, conduct, and report the findings of an experiment actually conducted on site within 50 minutes.





Road Scholar (Mrs. Stathos)

- ▶ Participants will respond to interpretative map questions based on one or more state highway maps, internet-generated maps, or road atlas and one or more USGS topographic maps.

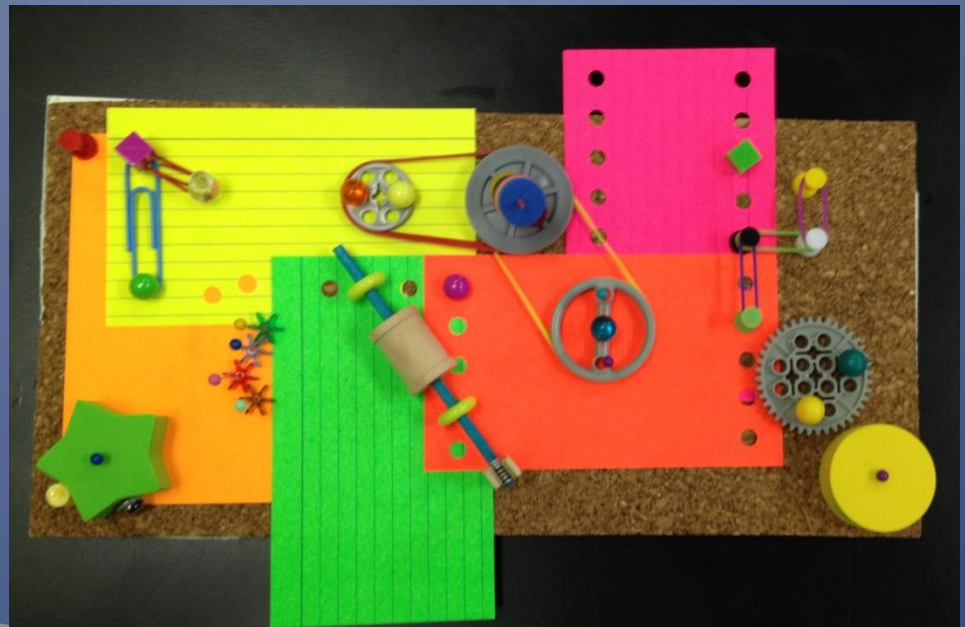
Crater Lake, Oregon, Topographic Map

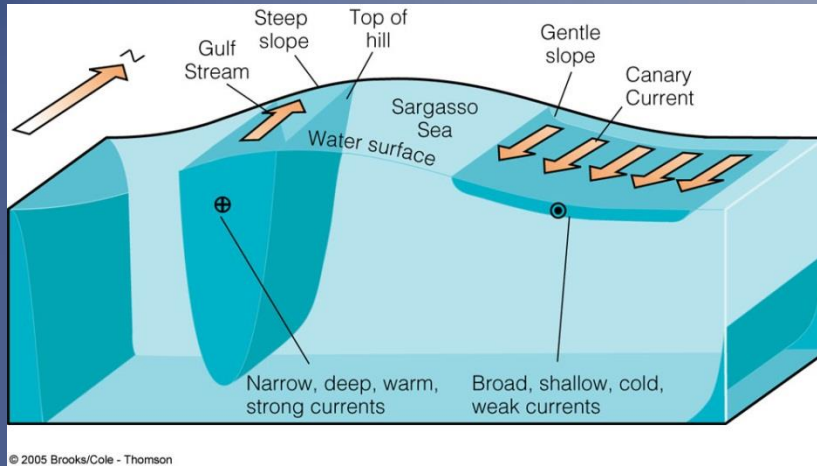


Topinka, USGS/CVO, 1999; Map modified from: U. S. National Park Service Map

Write it Do it (Mrs. Stathos)

- ▶ This event will test a competitor's ability to effectively communicate with a colleague in writing by having their partner construct a device from this written description.

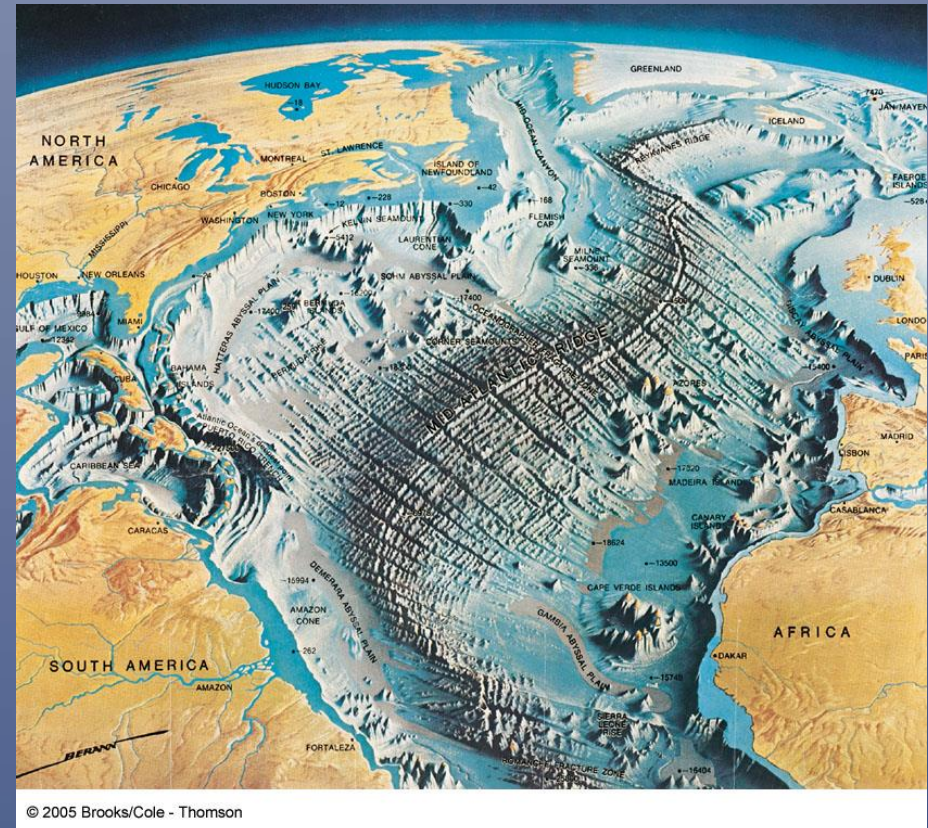




Dynamic Planet

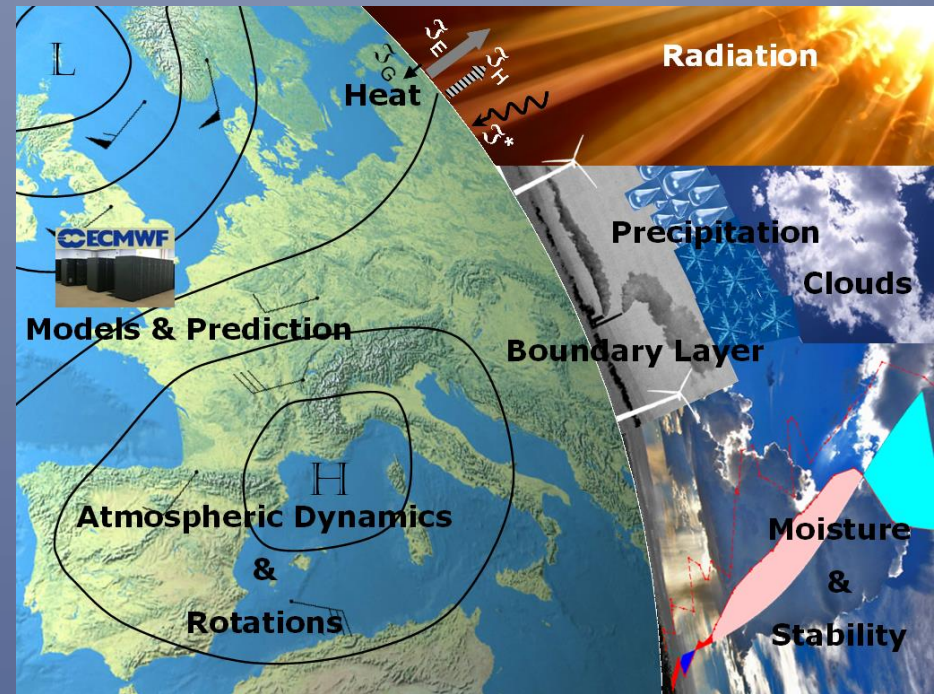
Mrs. Walsh

- ▶ Teams will work at stations that display a variety of earth science materials and related earth science questions, focusing on oceanography.



Meteorology –Everyday Weather (Mrs. Walsh)

This event emphasizes understanding of basic meteorological principles with emphasis on interpretation and analysis of meteorological data.



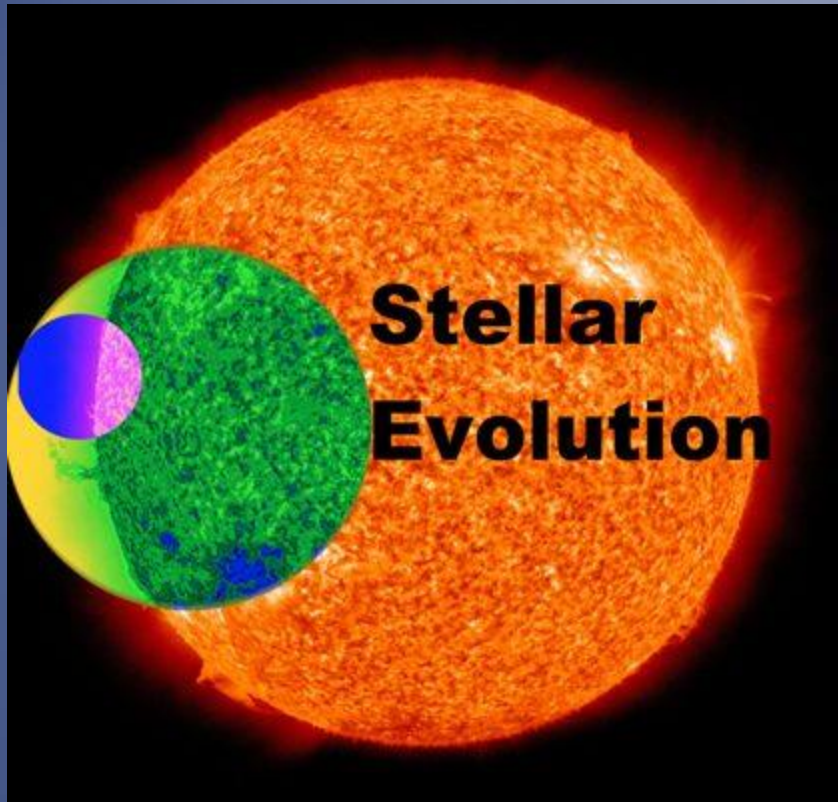
Fossils

(Ms. Beres)

- ▶ Teams will move through stations answering questions about fossils including classification, habitat, behaviors, and environmental adaptations, and how they were formed.

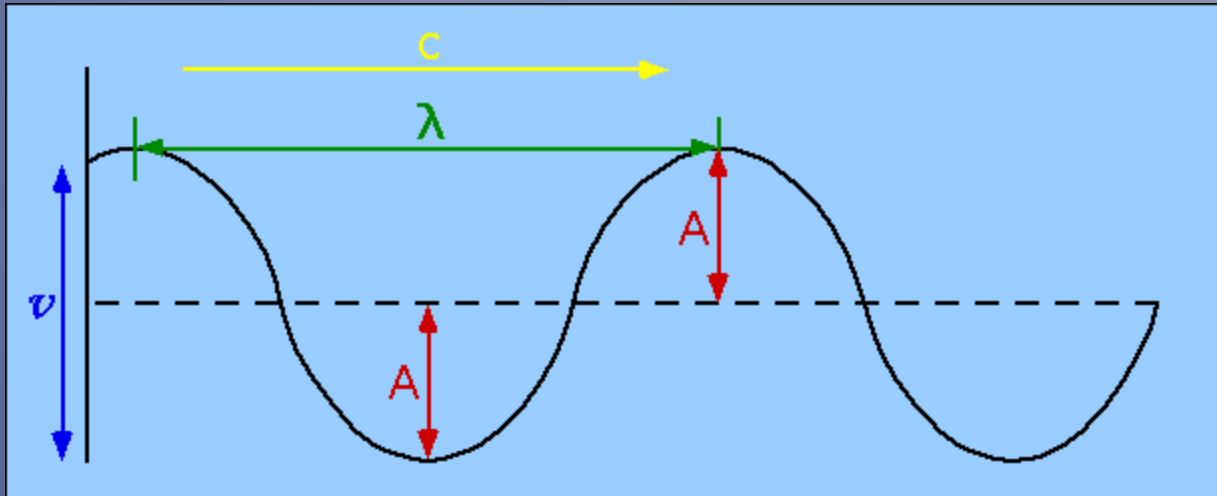


Reach for the Stars (Mrs. Walsh)



Focus on the properties and evolution of stars, especially star forming regions and supernova remnants and their observation with different portions of the electromagnetic spectrum.

Crave the Wave (Need Coach)



- ▶ Students will demonstrate knowledge and process skills needed to solve problems and answer questions regarding all types and areas of waves and wave motion.

Wind Power (Need Coach)

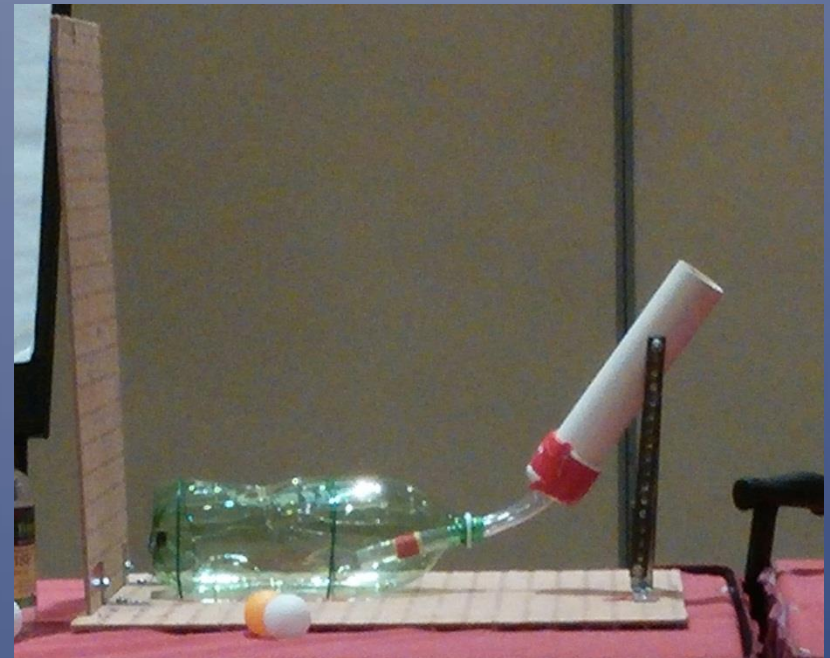
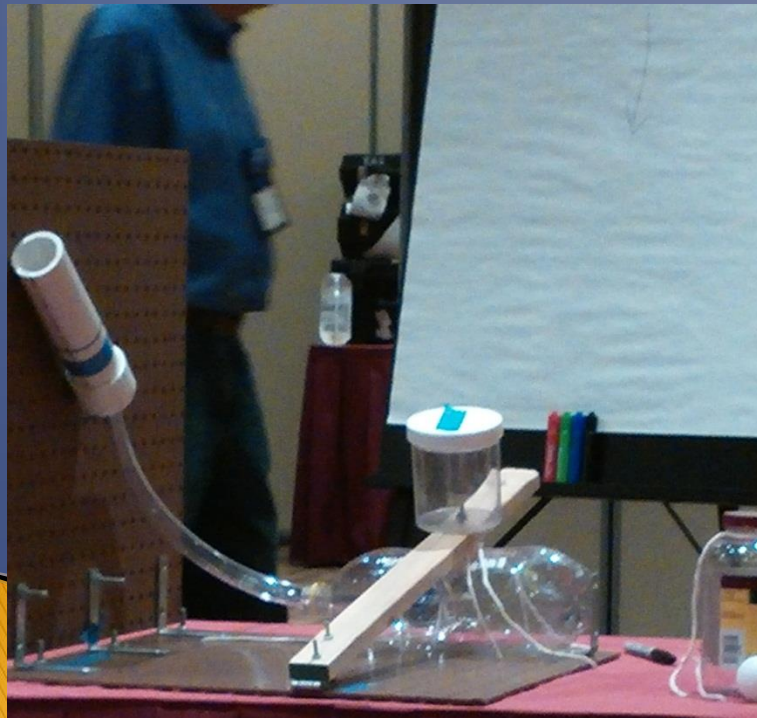


Two part event:

- Part 1 - Written exam on alternative energy.
- Part 2 – Prior to the competition, students construct a blade assembly that consists of any kind of propeller/pinwheel/rotor attached to a CD that will be used to capture wind power.

Air Trajectory (Mr. & Mrs. Wang)

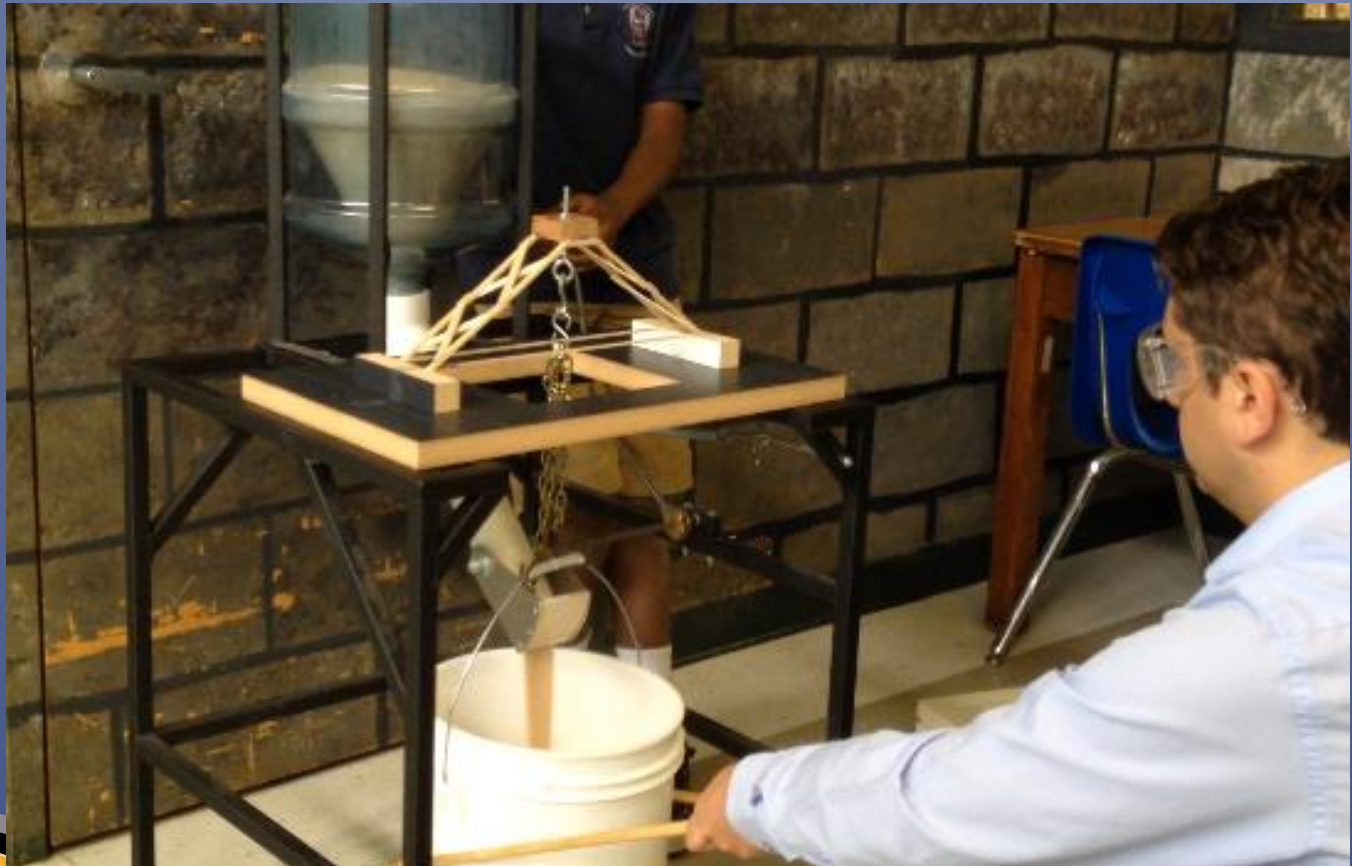
- ▶ Prior to the competition, teams will design, construct, and calibrate a single device that uses gravitational energy from a falling mass to launch projectiles into a target.



Bridges (Mr. Parlak)

- ▶ Students will build a wooden bridge to hold up to 15 kg.

Before:



After:



Elastic Launch Glider (Mrs. Walsh)

Students will construct and test free flight rubber-powered gliders prior to the tournament to achieve maximum flight times.



Mission Possible (Need Coach)

Prior to the competition, competitors will design, build, test, and document a Rube-Goldberg-like device that begins with the drop of a racquetball and ends with the ringing of a bell using a series of simple machines.



Bottle Rockets (Mr. Parlak)

Prior to the tournament, teams will construct two rockets designed to stay aloft for the greatest amount of time while carrying a raw egg that survives impact.



Scrambler (Need Coach)



Teams will design, build and test a mechanical device which uses the energy from a falling mass to transport an egg along a track as quickly as possible and stop as close to the center of a terminal barrier without breaking the egg.

Events we need coaches

- ▶ Crave the Wave
- ▶ Mission Possible
- ▶ Scrambler
- ▶ Wind Power
- ▶ Anatomy (Co-Coaches)
 - Skeletal
 - Muscular
 - Integumentary

What Next?

- ▶ Turn in Club selection Google form by August 20th (Thursday!)
- ▶ We will meet Monday thru Thursdays during club time until we have coaches and have scheduled classes (expected in early September)
- ▶ Once events are scheduled, classes will meet Monday–Saturday. Some events will be offered during 2nd club period (4:20 to 5:20)
- ▶ Class schedules are based on preference of the coach.

How many events?

- ▶ 6th graders must choose 3–4 events
- ▶ 7th and 8th graders 4–6 events
- ▶ Anatomy is one event but will meet 3 times a week (one day for each system)

Working around other clubs/teams

- ▶ Once our event class schedule is finalized, students will choose their events.
- ▶ If you are participating in another Academic Team, you must arrange your Science Olympiad schedule around your other team. For example, if you are doing Model UN, you cannot select Science Olympiad events that meet on Mondays and Thursdays during club time.
- ▶ You cannot participate in both Science Olympiad and Robotics!

For more information check out:

National Website:

www.soinc.org

National student run forum and wiki:

www.scioly.org

Any Questions?