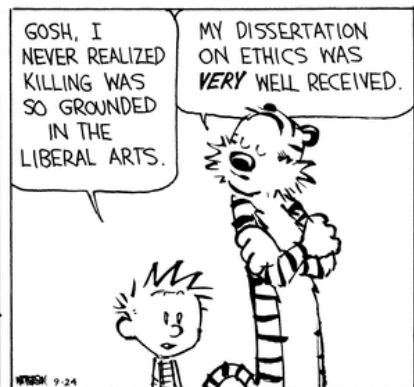
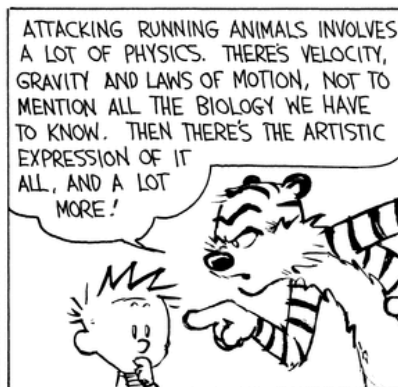




Exploring the World of Science

CENTRAL ELEMENTARY SCHOOL



Exploring the World of Science for almost 40 years!

SCIENCE OLYMPIAD PRESENTATION



Good Morning, My name is David McCutcheon
I teach at Central Elementary in Hampton.
We've run a Science Olympiad for over 35 years!

Two teachers put our Olympiad together when I was first hired and they ran it for several years. One left to become a principal, a new woman replaced him and the other eventually canceled it right before she retired because she didn't want it to be a burden. Don Antczak... who you will speak with as you work on a grant... and I brought it back. He retired and I now work with others. You could say I'm the 5th steward of the program. I tell you that so you can see that the program can stand the test of time! So, here are the questions you need to ask.

FIRST... Who is this for? We do 4th and 5th grade. We typically have 8-9 students on each team. The goal is to have an even number of boys and girls, 4th and 5th graders and a mix of strong and struggling students on each team. It is not an enrichment program... in fact the Society won't help fund it if you wanted to go that route.



SECOND... How many days and events do you want this to be? How long will each event be? We have a list of 40 events in our packet for you to look at. You should also get a copy of the Science Olympiad manual. Our Olympiad is 4 days. The first is for teambuilding that I will discuss in a minute and three days of events. Our events are 30 minutes long and we have a 5 minute break for students to move after each one. Every student gets to do about 10 events each year and they are not allowed to do the same event in their 5th grade year that they did in 4th grade.



SCHEDULE... Our Team Organization Day and Team Schedules are included in the pdf.

Many schools have the whole team travel together, but we run a high school-like schedule where 2-3 students travel to one event and 2-3 travel to another etc. There will be times when a student is not scheduled for an event and we have “non-competitive events” during those times.



We also have **parents** come and give presentations on how they use science in their careers. We've had doctors, physical therapists, personal trainers, chemists and one time we even had a NASA engineer present.

We have several non-competitives that we create and have parents run like an **optical illusion** station, **Bernoulli's Principle** (we bought a leaf blower!) and we have 2 ipad apps that we alternate. **Frog Dissection** and **Rube Works**. Both cost a little \$\$ but are well worth it!

HELPERS... In addition to being guest speakers, we have parent volunteers and high school students run events for us since we have several out at each time period. It is so much fun to see the high school kids come back, squeezing into their old Olympiad t-shirt from elementary school!



TEAM BUILDING DAY... So on Tuesday we have the whole team together and they travel all day to several team building events.

Some are **physical**... we play **ultimate** with a gator ball... **aeronautics**, which is playing catch with a tennis ball using bed sheets...

Others are more **cerebral** where they have to figure out a **mousetrap** Rube Goldberg like device together. Whatever you choose just be sure that it is not just another activity but something they need to complete together. For us, it is one of the few times they are all together and since we split up our teams from different grades and classes, this bonding usually tells us who will be successful the rest of the week.



WE'RE HERE TO HELP! All of this can be daunting at first but we are all very willing to help you get started! Many of our events are little to no cost to you and the Spectroscopy Society is very excited to help you fund the rest.

We run a Jeopardy Station online. Create questions from your curriculum and plug them into the program, have the SSP pay for your buzzer system and wala! You have your first event... one of our most popular... at no cost to you!

HERE ARE A FEW OF THOSE EVENTS...

Aerodynamics (paper)

Barge Building (foil)

Armor for an Egg and Naked Egg Drop (egg, paper)

Bottle Music (bottles)

Calculator Contest (calculators from the math teacher)

Coffee Can Racers (Have students bring in coffee cans all year, they make this at home with their parents)

Name that Scientist (Print out cards with information)

Paper Rockets

Pentathlon





Many of the others use reusable materials like Science Bowl needs a buzzer system that the Spectroscopy Society would get for you and you just have to have the questions ready to go after that.

We have medals for each event and trophies for the top three teams overall but you won't need those. Ribbons work great. Please do have something though. After each day we announce the winners, play the olympic theme on the gym speaker system. It's a great way to reward them and a lot of fun!



Thanks so much for listening and being willing to start up a program that your students will love and you will find most rewarding!

Remember to reach out to us... it makes us feel important! :)



Bin Check- During the year each event is placed in a bin and replenished so it is ready for the Olympiad. All I have to do is pull it off the shelf and place it in the room for the volunteer to run. Everything needed is inside.

Order Students- Every student is given a number 1-4. One being a great science student and potential leader of the team. Three would be a student who struggles academically. Four is either a behavior problem or a special needs student or any other student who might need extra help to succeed.

Create Teams- We try to create teams of eight that are split boy/girl, 4th/5th grade, from different homerooms and heterogeneously grouped.

Team Organization Day- Students pick their team name and schedule their events.

Parent Volunteer Letter- Includes a description of the event, a volunteer form and a t-shirt order.

Event Schedules- From the team schedule, we create an event schedule so when a parent comes in to run the event, they know exactly who is coming and at what time.

Student Schedule- Also from the team schedule, each student writes in their competitive events. Later we will add the non-competitive events in their free sessions and type the final schedule that they receive each day.

Contact and Schedule Guest Speakers, Event and Luncheon volunteers.

Teambuilding Events- Because our students participate in 4th and 5th grade, we have enough events for two years so they do not repeat them.

Preliminary Events- Three of our events require work ahead of time. Mystery Powders, Reflection Relay and Rubber Band Catapult all have pre-work that needs done before the event so we complete a few weeks ahead of time. In addition, many of our events have study guides and these are passed out at this time as well so students can study topics on their own if they so choose.

High School Volunteers- I send an announcement to be read at the high school each year asking for upperclassmen to come and help. My Olympiad is 3 days and high school volunteers can sign up for one day.

Assign Parents- Once you have contacted parents about their availability you can assign them and teachers to individual events and send them directions for the event they will be running.

At this point, everything is done and you're ready to go! Congratulations!





Exploring the World of Science

CENTRAL ELEMENTARY SCHOOL

AERODYNAMICS (2 participants per team)

Team members will construct a paper airplane using given materials and fly it towards a target placed on the floor. The plane must be aerodynamically designed. The plane which lands with its nose closest to the center of the target wins.

ARMOR FOR AN EGG (2 participants per team)

Team members will be given ditto paper and masking tape. They will construct a protective shell for a raw egg. Eggs will be dropped from increasing heights until the egg breaks or until only one team is left. Armor must be constructed so that the egg can easily be removed after each drop for inspection by the judges. Minor cracks will be allowed, but no liquid may leak out. Highest drop wins. (Participants may not compete in NAKED EGG DROP)

BARGE BUILDING (2 participants per team)

Each team will build a barge from foil provided. The foil barge which floats the greatest number of pennies without taking on water is the winner.

BLOOD AND GUTS (2 participants per team)

Team members will cooperate to answer questions and identify parts of the human body.

BOTTLE MUSIC (2 participants per team)

Teams will tune glass containers on site to play several preselected songs and demonstrate knowledge of music basics. Glass containers will be provided the day of the competition.

BRIDGE BUILDING (2 participants per team)

Participants will be given at the Olympiad site fifty plastic straws and twenty straight pins. They are to construct a suspension bridge that spans the greatest possible distance and is able to support at least one chalk eraser placed by the judge in the center of the bridge. (Participants may not compete in STRUCTURES.)

CALCULATOR CONTEST (2 participants per team)

Team members will be asked to complete a variety of math problems using a hand-held non-programmable calculator which will be provided.

CATEGORIES (2 participants per team)

Team members will work individually to complete a chart of various science categories. Each team must begin with preselected letters of the alphabet. Team members' scores will be combined for the team score.

CEREBRUM CHALLENGE (2 participants per team)

Team members will cooperate to solve math brain teasers and logic problems.

CHARTS AND GRAPHS (2 participants per team)

Participants will study charts and graphs to answer a variety of questions. (Participants may not compete in MAP READING.)

CIRCUIT WIZARDRY (2 participants per team)

This event will test students' knowledge of simple electric circuits. Participants should know the difference between open and closed circuits, the difference between series and parallel circuits, and have a general knowledge of electricity.

COFFEE CAN RACERS (2 participants per team)

Team participants must construct their own racer from a coffee can (any size) following the instructions provided. No other materials may be used. Racers may be painted or decorated as long as the basic construction is not altered. Competition is for greatest distance traveled in a straight line, not time.

COLOR MY WORLD (2 participants per team)

Team members will use water color chemistry to formulate color equations to reproduce given hues. (Example: 2 drops red and 4 drops blue produce blue violet.) Participants should have a general knowledge of primary colors, secondary colors, various hues, and the color wheel. Additional color quizzes may be part of this event.

COOL IT! (2 participants per team)

Teams will be given a cup containing a given amount of solidly frozen ice. They will cooperate to use the material provided to construct a container that will keep the ice frozen. Winners will be determined by the judges who will measure the amount of water in the cup after a set period of time.

ESTIMANIA (2 participants per team)

Teams will estimate the volume, length, height, circumference, etc. of various objects and situations. Predictions will be in metric units and non-standard units such as paper clips, gumballs, cars, etc.

GRAB-A-GRAM (2 participants per team)

Teams will cooperate to pick up various materials in a given number of grams. Points scored equals the number of grams "difference" from the target amount the "grab" is. Lowest score wins.

JEOPARDY (3 participants per team) (Friday Afternoon Final)

Modeled after the TV game show, answers will be given and teams must provide the correct question. Questions will come from a variety of science categories. (Participants may not participate in SCIENCE BOWL)

MANIPULATIONS (2 participants per team)

Participants will create figures, match patterns, and solve problems using tangrams and pentominoes. Materials will be provided.

MAP READING (2 participants per team)

Participants will work together to answer questions about a variety of maps. (Participants may not compete in CHARTS AND GRAPHS)

MEASUREMENT (2 participants per team)

Participants will be asked to complete various measuring tasks using measuring tools provided.

MYSTERY BOXES (2 participants per team)

Team members will have an opportunity to observe materials in closed boxes using senses other than sight. They will fill out a chart answering questions about the mystery items. Most correct observations wins.

MYSTERY POWDERS (2 participants per team)

Teams will be asked to identify a mixture of common white house-hold powders. Students will be given materials to test the powders. Vinegar, water, iodine, and heat tests will be possible. (Students in this event must attend a preparation session before the Olympiad to complete a data table.)

NAKED EGG DROP (2 participants per team)

Raw eggs will be dropped from increasing heights into a landing pad/catching device which will be built by the team on site. Eggs and building materials will be provided at the competition. Nothing may be attached to the egg. (Participants may not participate in ARMOR FOR AN EGG)

NAME THAT SCIENTIST (2 participants per team)

Participants will cooperate to identify famous scientists and their contributions to science.

OUT OF THIS WORLD (2 participants per team)

Participants will cooperate to answer questions about and identify planets, stars, the sun, astronauts, space, and related information.

PAPER ROCKETS (2 participants per team)

Students will construct and fly a paper rocket using directions provided. Rockets will be launched toward a predetermined target. (Participants may not compete in AERODYNAMICS)

PENTATHLON (4 participants per team)

Your team will compete against the clock. Each team member will complete a physical activity and then answer a science question in a relay format. Shortest total team time to complete the course in all five activities wins.

PREDICTIONS (2 participants per team)

Team members are required to determine the density of objects and predict whether they will sink or float.

PUFFMOBILES (2 participants per team)

Team members will be given materials such as straws, pins, beads, and paper. They will construct a vehicle which they will blow along a course. Puffmobiles will race against the clock. Fastest time wins.

REFLECTION RELAY (3 participants per team)

Three team members, each supplied with a small mirror, cooperate to bounce a light beam from a light source onto predetermined targets. Other reflection activities or questions may be part of this event at the discretion of the coordinators.

RUBBER BAND CATAPULT (2 participants per team)

Participants will use a catapult device to shoot rubber bands at a target placed within a certain range. Participants will be helped to complete a data table which will show distance covered for different shooting angles and stretches. Data tables should be brought to the competition. At the competition, teams will be told the distance of the target, and will use their data to help them adjust their catapult.

SCIENCE BOWL (3 participants per team) (Thursday Afternoon Final)

Team members will answer science questions in a "college bowl" format on a rotating basis. Each team should designate experts in the following: EARTH/SPACE, BIOLOGY, AND PHYSICAL SCIENCE.
(Participants may not compete in JEOPARDY)

SCIENCE CROSSWORD (2 participants per team)

Each team will attempt to complete a science crossword puzzle using science terminology.

SCIENCE HANGMAN (2 participants per team)

Teams will attempt to guess a scientific name, term, or phrase by first guessing letters as in the TV game show Wheel of Fortune.

SPELL SCIENCE (2 participants per team) **(BOGGLE)**

Participants will individually take a spelling test of science words. Team score will be a total of the two members' scores.

STRUCTURES (2 participants per team)

Participants will construct a tower, on site, using only 25 straws and 10 straight pins. The tallest structure which stands for 10 seconds is the winner. (Participants may not complete in BRIDGE BUILDING)

WEB OF LIFE (2 participants per team)

Participants will cooperate to answer different kinds of questions about living things and their environment, including identification of living things, their ecosystems, classifications, special features, as well as questions about current environmental and ecological issues.

WHAT'S THE MATTER? (2 participants per team)

Participants will work together to answer questions about matter, atoms, molecules, compounds, etc. Participants will classify matter, identify simple chemical symbols, and answer a variety of questions about matter.

WHAT WENT BY? (2 participants per team)

Participants will be asked to identify and provide information about different objects, especially those found in nature.

WRITE IT/DO IT (2 participants per team)

One team member is shown a tinker toy contraption. He/she will write a description of the object and explain how to build it in the first half of the competition. Then the other team member will use the written directions and tinker toy pieces to try to build the contraption in the second half of the competition. Teams must designate one person to "write" and one person to "do".



Exploring the World of Science

Team Organization Day

The following information will help your teamwork through the organizational process for Science Olympiad scheduling. It is important that your team reads and understands all the information provided before trying to schedule team members into the team events. **Working carefully and following the directions** will keep problems to a minimum and will assure that each team member gets fair treatment in choosing events.

1. Each group should:

- a. Become acquainted with each other. Cooperation among team members will be very important to the success of your team.
- b. Work together to choose a team name.**

2. Rules for choosing team events:

- a. Read over the events
- b. **MIX UP PARTNERS!** Mix boy and girl partners and fourth and fifth grade partners. Work with **every other member** of your team.
- c. Be sure to **schedule absent team members** for events. Be fair in choosing so that they will have a variety of events.
- d. **5th grade students MAY NOT enter an event in which they competed during last year's Science Olympiad.**

e. Some events have special coding:

Science Bowl participants must indicate who will be the **B**iology expert, the **P**hysical Science expert, and the **E**arth/Space expert. Put the **B, P, or E** in the block beside each name under that event.

Write It / Do It participants must decide who will **WRITE** in the morning session and who will **DO** in the afternoon session.

f. Most events will require 2 team members to compete. Events, such as Reflection Relay, Science Bowl and Science Jeopardy will require 3 team members. Pentathlon will require 4 team members.

g. Some similar events are coded with the same color. **DO NOT CHOOSE MORE THAN ONE EVENT OF THE SAME COLOR CODE.**

h. Make sure no one is scheduled for two events at the same time.

3. Each team member should have the number of events listed below, based on how many team members there are.

- Teams of 8 ----- 5 students will compete in 11 events
3 students will compete in 10 events
- Teams of 9 ----- 5 students will compete in 9 events
4 students will compete in 10 events

Note: Any schedule may be changed if there are scheduling conflicts or if you don't follow directions. Take your time and work carefully!

The completed Master Schedule is to be returned to Mr. McCutcheon

Team Name :
Team Number : 8

		Wednesday AM										Wednesday PM											
		Time	Room	Event	Event	Event	Event	Event	Event	Event	Event	Time	Room	Event	Event	Event	Event	Event	Event	Event	Event		
1.)	Name	8:55 - 9:25	Room 25	Reflection Relay	Structures	Naked Egg Drop	Name That Scientist	Manipulations	Mystery Powders	Pentathlon	Cerebrum Challenge (B)	12:35 - 1:05	Room 27	Calculator Contest (B)	Categories (B)	Spell Science (B)	Science Crossword					Total	
2.)																							
3.)																							
4.)																							
5.)																							
6.)																							
7.)																							
8.)																							
9.)																							
10.)																							

- ① MAKE SURE THE RIGHT NUMBER OF PEOPLE ARE IN EACH EVENT
- ② THEY CAN NOT BE IN TWO EVENTS AT THE SAME TIME
- ③ THEY CAN NOT BE IN BOTH EVENTS OF THE SAME COLOR

TOTAL EVENTS FOR WEDNESDAY

Team Name :
Team Number : 8

		Thursday AM										Thursday PM											
		Time	Room	Event	Event	Event	Event	Event	Event	Event	Event	Time	Room	Event	Event	Event	Event	Event	Event	Event	Event		
1.)	Name	9:25 - 9:55	Cafeteria	Cool It!	Hangman	Puffmobiles	Write It! (Partner 1)	Color My World	Grab-A-Gram	Circuit Wizardry	Estimania	Predictions	Out Of This World	Science Bowl	What's the Matter?	Do It! (Partner 2)	Mystery Boxes					Total	
2.)																							
3.)																							
4.)																							
5.)																							
6.)																							
7.)																							
8.)																							
9.)																							
10.)																							

TOTAL EVENTS FOR THURSDAY

TOTAL FOR WED+THURS

Total Wed+Thurs

Team Name :
Team Number : 8

Name	Time	Room	Friday AM					Friday PM					Total
			8:25 - 8:55	8:25 - 8:55	10:00 - 10:30	10:00 - 10:30	10:35 - 11:05	12:35 - 1:05	12:35 - 1:05	12:35 - 1:05	1:10 - 1:40	1:10 - 1:40	
1.)	Measurement	Room 24						Aerodynamics			Bridge Building		
2.)	What Went By?	Room 26						Barge Building			Jeopardy		
3.)								Paper Rockets					
4.)													
5.)													
6.)													
7.)													
8.)													
9.)													
10.)													

PERSON #3 IS ALSO
SIGNED UP FOR NAKED
EGG DROP WHICH IS ORANGE
TOO. ^^

* TEAMS OF 8 WILL HAVE
5 PEOPLE w/ 11 EVENTS
3 PEOPLE w/ 10 EVENTS

* TEAMS OF 9 WILL HAVE
5 PEOPLE w/ 9 EVENTS
4 PEOPLE w/ 10 EVENTS

FRIDAY'S TOTAL
WED-FRIDAY



Event:

REFLECTION RELAY

WEDNESDAY AM

9:10-9:40

9:45-10:15

10:20- 10:50

10:55-11:25

1

5

6

3

2

7

10

4

8

11

14

9

12

15

16

13

17

23

18

20

22

24

19

21

Wednesday AM		
9:10-9:40, 9:45-10:15, 10:20-10:50, 10:55-11:25		
Event	Location	Instructor
Manipulations	Room 22	Cook. Hock. O'Donnell.
Mystery Powders	Room 23	T Mytinger. Hogan.
Structures	Room 24	T Friske. Wehler. #2.
Reflection Relay	Strings	T Funtal. Sanguigni. Bumblis.
Name That Scientist	Cafe Lobby	Benigni. Then.
Map Reading	Stage	Keller. Cameron. Wheeler.
Naked Egg Drop	Loading Dock	T May. Koble.
Pentathlon	Gym Back	T McMonigal. Holler. Rowlands. Phillips. Kornick. Silianoff.

Non Competitive Events

Planetarium	Gym Front	Mr Antczak
IPad Frog/Rube	IST	X
Owl Pellets	Room 21	Filoni. Luci.
Optical Illusions	Room 27	Ryan. Evans. Bruno.
STEM Challenges	Studio	X



Guest Speakers

Medical Imaging	Room 25	Mr Li
Attorney General	Room 26	Agent Kelly Roberts
Smart Materials	Room 28	Dr. Vande Geest
Nuclear Power	Studio	Mr Kurasch

Wednesday PM		12:50-1:20, 1:25-1:55, 2:00-2:30
Event	Location	Instructor
Spell Science A	Room 22	Martin. Shane.
Spell Science B	Room 22	Sanguigni. Hogan.
Categories A	Room 23	Murray. Kaehly.
Categories B	Room 24	McMonigal. Fitzpatrick.
Cerebrum Challenge A	Room 13	Gangjee. Martin.
Cerebrum Challenge B	Room 13	Friske. Wehler.
Calculator Contest A	Stage	May
Calculator Contest B	Cafe Lobby	Funtal. Mytinger.
Science Crossword	Strings	Bageley. Wheeler. Schiller.

Non Competitive Events

Planetarium	Gym Front	Mr Antczak
IPad Frog/Rube	IST	X
Owl Pellets	Room 21	Garbon. Then.
Optical Illusions	Room 27	Benigni. Seekford.
STEM Challenges	Studio	X

Guest Speakers

Immune System	Room 25	Dr Ledwich
Attorney General	Room 26	Agent Kelly Roberts
Smart Materials	Room 28	Dr. Vande Geest

Scoring:

Lynn Harris
Debbie Shushnar



Thursday AM		
Event	Location	Instructor
Charts and Graphs	Room 22	Friske. Gangjee. Armstrong.
Grab - A - Gram	Room 23	Kreshon. Cameron. Carr. Saponsky.
Science Hangman	Room 24	Snyder. Peace. Schott.
Write It	Room 30	T Fitzpatrick.
Puffmobiles	Strings	T Merritt. Heitzenroder. Bender.
Cool It!	Cafe Lobby	T May. Bumblis. Desguin.
Science Bowl	Stage	T Mytinger. Holler. Bruno.
Color My World	Art Room	T Wehler. #2. Koble.

Non Competitive Events

Planetarium	Gym Front	Mr Antczak
IPad Frog/Rube	IST	X
Owl Pellets	Room 21	Funtal. Hogan.
Optical Illusions	Room 27	Leidwinger. Mycyk. Evans.
STEM Challenges	Studio	McMonigal. Sanguigni.



Guest Speakers

Wooly Mammoth	Room 25	Mrs Hawkins
Attorney General 2	Room 26	Agent Molly Galazia
Surface Tension	Room 28	Mr Woodworth
Developmental Biology	Room 15	Mrs Christopher

Scoring:
Lynn Harris
Debbie Shushnar

Thursday PM Event	Location	12:50-1:20, 1:25-1:55, 2:00-2:30 Instructor
Circuit Wizardry	Room 22	T Funtal. Sanguigni.
Estimania	Room 23	Anderson. Mycyk.
Science Hangman	Room 24	Hamberg. Carr.
Do It!	Room 30	T Fitzpatrick.
What's the Matter?	Strings	Friske. Bender.
Mystery Boxes	Room 13	Merritt. Leidwinger.
Out of This World	Cafe Lobby	Lucci. #2.
Science Bowl	Stage	T Mytinger. Bruno. Desguin
Predictions	Receiving Rm	T McMonigal. Wehler.

Mrs May: Cool It! Judging

Non Competitive Events

Planetarium	Gym Front	Mr Antczak
IPad Frog/Rube	IST	X
Owl Pellets	Room 21	Hogan. #2.
Optical Illusions	Room 27	Paul. Domske.
STEM Challenges	Studio	X

Guest Speakers

Wooly Mammoth	Room 25	Mrs Hawkins
Attorney General 2	Room 26	Agent Molly Galazia
Surface Tension	Room 28	Mr Woodworth
Developmental Biology	Room 15	Mrs Christopher
Anesthesiologist	Studio	Dr Schott

Scoring:

Lynn Harris

Debbie Shushnar



Friday AM		9:45-10:15, 10:20-10:50, 10:55-11:25	
Event	Location	Instructor	
Blood and Guts	Room 22	Dr Mytinger. Meyers (2)	
What Went By?	Room 23	Silianoff. Schluep. Cottrell.	
Measurement	Room 24	Seymour. Opp. Berke.	
Web of Life	Room 25	Buben. Maguire. Sharma.	
Bottle Music	Stage	T	Funtal. Hogan. Bumblis.
Armor for an Egg	Loading Dock	T	May. Koble.
Coffee Can Racers	Cafeteria Lobby	T	Friske. McMonigal. Fitzpatrick.
Jeopardy	Gym Back	T	Mytinger. Holler.

Non Competitive Events

Planetarium	Gym Front	Mr Antczak
IPad Frog/Rube	IST	DeBrunner. Wehler.
Owl Pellets	Room 21	X
Optical Illusions	Room 27	Zelch. Sanguigni. Evans
STEM Challenges	Studio	Massott. Ryan.



Guest Speakers

Fitness 4 You	Room 26	Mrs Bacasa
Power Generation	Room 28	Mr Seymour
Chromatography	Room 21	Mrs Topper

Scoring:
Lynn Harris
Debbie Shushnar

Friday PM**12:50-1:20, 1:25-1:55**

Event	Location	Instructor
Barge Building	Room 22	T Hogan. McMonigal. Fitzpatrick.
Paper Rockets	Room 23	Peck. Bolanis. Schiller. Sharma.
Bridge Building	Room 24	Friske. Champion. Phillips.
Rubber Band Catapult	Room 25	T Dalton. Armstrong. Berke.
Aerodynamics	Cafeteria Lobby	Seymour. Akanowicz. Hartle.
Bottle Music	Stage	T Funtal. Wehler. Sanguigni.
Jeopardy	Gym Back	T Mytinger.

Non Competitive Events

Planetarium	Gym Front	Mr Antczak
IPad Frog/Rube	IST	Massot.
Owl Pellets	Room 21	X
Optical Illusions	Room 27	Evans. Bruno.
STEM Challenges	Studio	Petry. Opp.

**Guest Speakers**

Medical Imaging	Room 26	Mr Deible
Power Generation	Room 28	Mr Seymour
Chromatography	Room 21	Mrs Topper

Scoring:**Friday AM and Friday PM needs to be done by 2:15**

Lynn Harris

Debbie Shushnar