

EMS PTSA Enrichment Info Night

09/13/2019



Agenda

6:40pm: Opening Speech by PTSA President Binny Marwaha;

6:45pm: Math Team Presentation;

7pm: Robotics Club Presentation;

7:15pm: Science Team NSB/YBCT Presentation;

7:30pm: Science Team SO Presentation;

7:45pm: Program Station Q&A; Robotics Club Teams Formation

8:20pm: Clean Up

Math Team



AMC 8
AMC 10



MAA

MATHEMATICAL ASSOCIATION OF AMERICA

Evergreen Math Team

2019-2020

Heryun Hahn
Math Team Co-Chair

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Math Team is for students who are interested in math competitions like these:

- › AMC 8
- › AMC 10
- › MathCounts
- › Math Is Cool
- › Washington State Math Championship in Blaine
- › LWSD Math Olympiad

American Mathematics Competitions

- › The Mathematical Association of America (MAA) runs the American Mathematics Competitions (AMC) program.
- › The AMC program includes several different competitions.
- › The initial levels of these competitions are the AMC 8, the AMC 10, and the AMC 12:
 - AMC 8 for students in grade 8 or below.
 - AMC 10 for students in grade 10 or below.
 - AMC 12 for students in grade 12 or below.

AMC 8

- › The AMC 8 is a 25-question, 40-minute, multiple-choice test in middle school mathematics.
- › Students in grades 8 and below can take the test.
- › The test will take place after school on Tuesday, November 12, at EMS.

- › Example question:

If:

$$3^p + 3^4 = 90$$

$$2^r + 44 = 76$$

$$5^3 + 6^s = 1,421$$

what is the product of p, r, and s?

(A) 27 (B) 40 (C) 50 (D) 70 (E) 90

AMC 10

- › The AMC 10 A and AMC 10 B are 25-question, 75-minute, multiple-choice tests in high school mathematics.
- › Students in grades 10 and below can take the test.
- › The AMC 10 A will take place after school on January 30 at EMS.
- › The AMC 10 B will take place after school on February 5 at EMS.
- › AMC 10 A and AMC 10 B are equivalent tests. Students can take either or both.
- › Example question:
Which of the following numbers is a perfect square?

(A) $14!15!/2$ (B) $15!16!/2$ (C) $16!17!/2$ (D) $17!18!/2$ (E) $18!19!/2$

MathCounts

- › MathCounts is a national competition with four progressive rounds: School, Chapter, State, and National.
- › The School round is an individual test that is open to every student registered for Math Team.
- › The Chapter round includes both individual and team competitions, with one 4-student team and 6 additional individuals competing from each school.
- › The top 20 scorers from the School round will take a second test to select the 10 students who will represent Evergreen in the Chapter round.
 - The top 4 scorers will be the team.
 - The next 6 scorers will compete as individuals.
- › School round dates will be announced soon.
- › Evergreen placed 1st in the MathCounts State round last year!

Math Is Cool

- › MIC is a competition where students compete in teams of four and as individuals.
- › Sections of the contest typically include Mental Math, Team Multiple Choice, Team Test, Relays, College Bowl, and the Individual Test.
- › Prizes are awarded in each grade for both individual and school performances.
- › The top four scorers in each grade typically advance to the state competition.

Washington State Math Championship in Blaine

- › The WSMC is a competition where students compete in teams of four and as individuals.
- › Sections of the contest typically include Mental Math, Algebra, Geometry, Probability, Potpourri, and the Individual Test.
- › Prizes are awarded in each grade for both individual and team performance.

Teams for MIC and WSMC

- › For both MIC and the WSMC, students are encourage to form their own teams.
- › If students do not have a team, AMC 8 and MathCounts School round scores will be used to group students into teams.

Lake Washington School District Math Olympiad

- › The LWSD Math Olympiad is a competition open only to LWSD middle school students.
- › Students compete in teams of four to represent their schools.
- › Prizes are awarded based on school performance.

Parents are responsible for their children at competitions.

- › This includes:
 - transportation to and from the competition
 - meals and snacks
 - supervision during breaks



The \$50 Math Team fee covers registration for all the competitions listed.

To join Math Team, register on the PTSA website, <http://evergreenptsa.org/> by September 27.

Students who register for Math Team can also sign up for after-school coaching sessions led by Math Team Co-Chair Ryan.

Ryan will talk about these sessions next...

Introduction

EMS Stress Math Sessions

Ryan

Sep. 2019

Why called as Stress Math?

- This is not math enhancement afterschool, instead, it is designed for math competitions
- Students enrolled will be trained for math competitions in well disciplined manners, with extra efforts beyond school
- There be qualification criteria and placement based on math level with evaluation
- Have to be self-motivated

Goals

- Build up an environment for students with passion in math competition
- Provide chances to learn from peers
- Good results in national/regional competition
- Two seasons:
 - 1st season: Oct 2019 – Feb 2020
 - 2nd Season: Feb 2020 – April 2020



What to be offered

Group #1

Target: AMC 10

- Size: 15-20
- Meet: Biweekly Thursday 3:00-4:30 PM
- Methods: Topic introduction/exercise/presentation/Homework

Group #2

Target: AMC 8 – AMC 10

- Size: 20-30
- Meet schedule: Biweekly Thursday 3:00-4:30 PM
- Methods: Topic introduction/exercise/presentation/Homework

Group #3

Target: Reginal competition - AMC 8

- Size: 20-30
- Meet schedule: Biweekly Friday 3:00-4:30 PM
- Methods: Topic introduction/exercise/presentation/Homework

Online only

Target: Reginal competition - AMC 8

- Size: unlimited
- Meet schedule: None
- Methods: Math team will open online sample questions to all students registered in Math Team

Math Counts School Team Training

Target: School MC team

- Size: school team only
- Meet schedule: TBD

Who are eligible to apply

- Anyone register to Math Team this year are eligible to apply Stress Math Sessions

<http://evergreenpts.org/Page/Enrichment/Math%20Team>

- When Math Team registration is closed, Stress Math Session application will be open for 1 week or less based on placement

How to do placement

- Qualification
 - Based on previous AMC 8 and AMC 10 results
 - Questionnaires about the math background
 - If needed, for some students without previous AMC results, we can consider offer some test
- Placement
 - Placement would not be negotiable
 - Coaches could do necessary adjustment based on progress in the spring

Cost

- Register Fee - None
- Training Fee - None
- Team Fee - \$50 (*TBD??*) (Oct 2019– Feb 2020)
 - Materials, printing, class celebration, ...
- Parent Volunteering (Oct 2019– Feb 2020)
 - Minimal parent volunteering – once per season
 - **Failed to provide parent volunteering, student would not be eligible for coach session**
 - Responsibility would be
 - Practice material printing
 - Setup/cleanup classroom
 - Classroom discipline management
 - ...

Notes: Student failed to follow disciplines would not be eligible for Sessions with written notification to parents

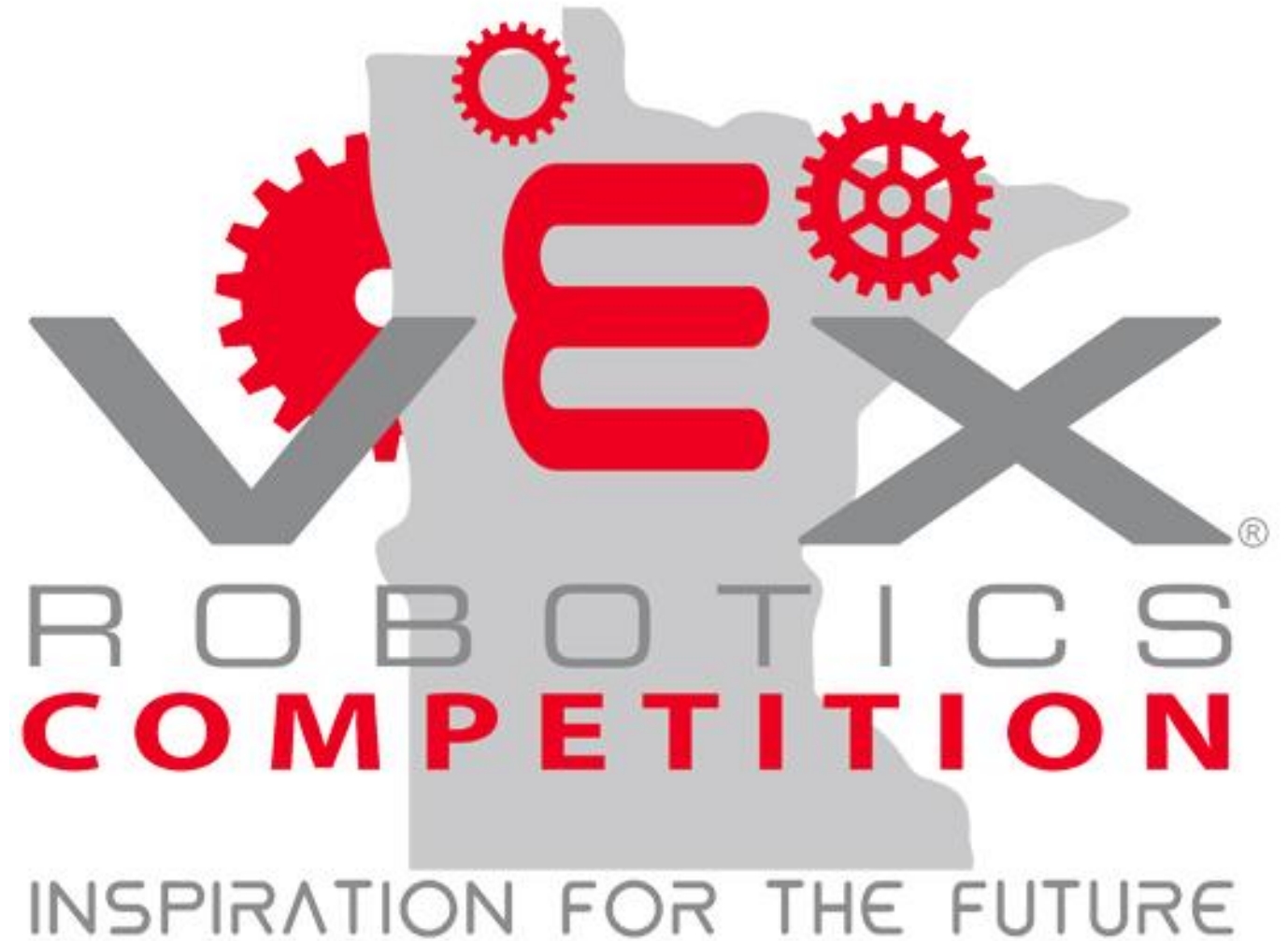
Coaches

- Ryan
- Tristan
- TBD
- TBD

Q&A

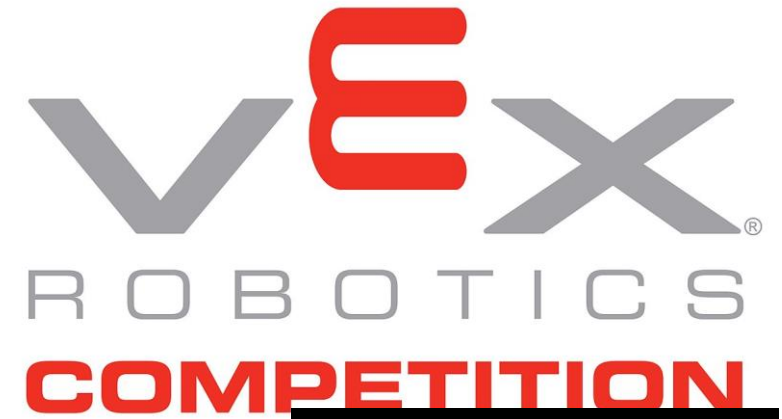
- Will be hold in Q&A station

Robotics Team

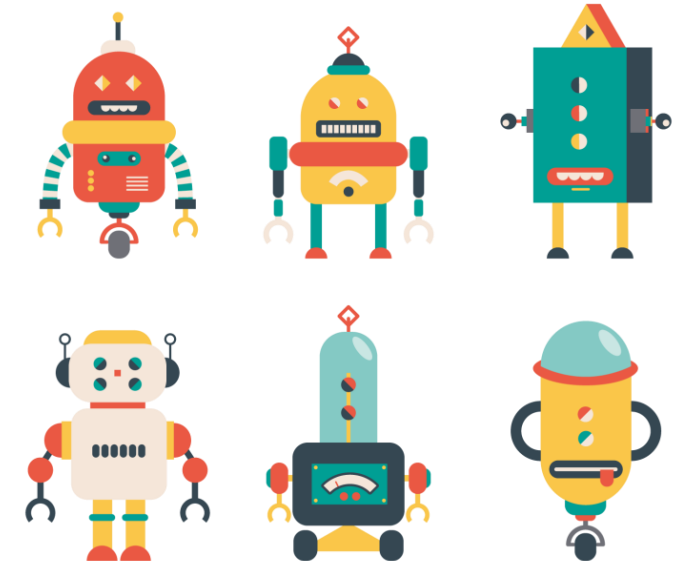


EMS PTSA Robotics Club

- 9/13/2019
- Robotics Club Chair
- Ping Liu



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History & Achievements



- 3 years Vex IQ program run by former Science Teacher Mr. Jason Steele (TMS)
- Year 1: 9 teams 4 to state 0 to worlds
- Year 2: 20 teams 7 to state 2 to worlds
- Year 3: 33 teams 10 to state 7 to worlds
 - 47A won division teamwork 2nd place
 - 47B won the Think Award
 - 47G won the Design Award
 - 47U won the Innovation Award

Children's photo is used only for the purpose of school and PTSA events.

VEX IQ Challenge

Student-centered teamwork based snap-together robotics system by REC (Robotics Education Competition) Foundation

- **WHO**

- Curious and motivated future **Engineers and Innovators**

- **WHAT**

- Online STEM class
(<https://www.vexrobotics.com/vexiq>)
- Fun, engaging and hands-on STEM lab

- **Demo:**

[Squared Away](#)

EMS PTSA Robotics

- This is a Competitive Club
- **Goal:**
 - Min. 2 VEX IQ local tournaments hosted by TMS and LWSD League (highly recommended by Mr. Jason Steele)
 - Potential to qualify for state competition or even world competition
- **Team Requirements**
 - Team size 3-5 students
 - Must have a parent coach (technical advisor and manager)
 - 4+ hours of teamwork per week
- 5 mandatory club teaching meetings on Wednesdays after school (Oct. – Dec.)
- Optional meetings on Wednesdays after school 1:30-3pm (Oct.– Feb.)
- Outside of school team meetings per week (per each team's discretion)

Topics Covered in Club Meetings

- Presented by HS student coaches with Vex Worlds experiences
- Structural design
- Scientific design notebook
- Gearing: ratios/logistics/strategies
- Programming (Blockly, Python, RobotC)
- Tournament strategy and problem solving

Expenses

Per Student: (paid to PTSA)

- \$40 Robotics club fee (covers parts expenses) collect at registration

Per Team: (extra tournament fee collect later)

- \$100 one time registration fee with REC Foundation to enter VEX IQ tournaments
- \$35 - 40 per local tournament registration fee
- There may be more expenses for state and world competitions if teams qualify and wish to attend (Travel cost for hotel and flight etc.)

Parent Coach Commitments

- Must be a PTSA member and LWSD approved volunteer
- Must review and follow the Student-Centered Policy released by REC Foundation.
- Register team online and collect school club and tournament fees
- Manage all team activities and mentor technically
- Coordinate parents and students and communicate with club chairs
- Organize and supervise outside of school meetings
- Responsible for the team and the team conduct outside school and at tournament events

How to Join Robotics Club

The following process must be followed step by step:

1. 3-5 students form a team (Club chair and parents **do not** form teams and they **do not** force students onto other teams)
2. Find a parent/guardian willing to be your coach
3. Provide a team name
4. The Team Coach uses [this link](http://evergreenpts.org/Page/Enrichment/Robotics) to enter the team's information and payment.
(<http://evergreenpts.org/Page/Enrichment/Robotics>)
5. Each student must complete permission slip ([here](#)) and submit it to the coach. Coach collects all slips and submits together to robotics@evergreenpts.org.
6. Upon receipt of payment and all team members' permission slips, the coach will be given a date and a time to pick up your robotics kit in the order!

All steps must be completed **by the end of September (9/30)**.

Resources

- [2019-2020 VEX IQ Challenge](#)
- [Rubrics and Tournament Information](#)
- [RobotEvents.com](#)
- [Evergreen PTSA Enrichment](#)

Acknowledgement

- Mr. Jason Steele (Former EMS Robotics Club Advisor, now TMS)
- EMS PTSA Board (President Binny and Communications VP Natalie)
- EMS PTSA Parent Volunteers

Science Team



EMS PTSA SCIENCE TEAM

EVERGREEN MIDDLE SCHOOL PTSA

THE CHILDREN PHOTOS AND
VIDEO ARE USED ONLY FOR
SCHOOL PTSA EVENT

National Science Bowl(NSB)

4-5 STUDENTS COMPETE IN A FAST-FACED, QUESTION-AND-ANSWER FORMAT TO SOLVE TECHNICAL PROBLEMS ON A RANGE OF SCIENCE CHEMISTRY, PHYSICS, ENVIRONMENTAL SCIENCE AND MORE.

CHEMISTRY

PHYSICS

LIFE
SCIENCE

MATH

EARTH
SCIENCE



EMS NSB HISTORY



2016

NSB National
Final – 5th
place



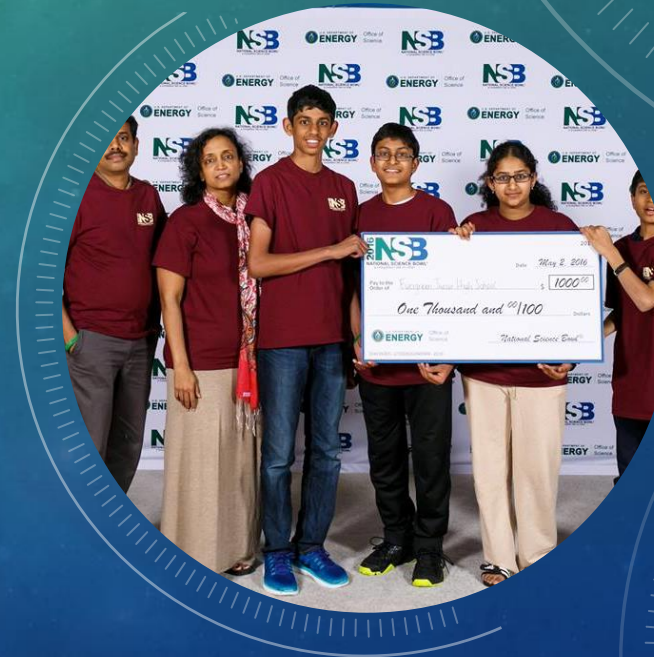
2018

NSB Regional
Champion –
2nd place



2019

NSB National
Final – 9th
place



FLOWCHART



RULES



Students who wish to qualify for NSB must take Written and Oral qualifier, at school, no make-up



LWSD Privacy policy is enforced. - Scores are private and cannot be shared with anyone but the student. Ranks can't be shared with anyone.



Selected NSB team must have a volunteer coach.

QUESTIONS



- HOW TO PREPARE?
- WHERE TO FIND THE STUDY MATERIALS?
- HOW MANY TOPICS COVERD IN THE QUALIFIER ?
- HOW MANY QUESTIONS FOR WRITTEN & QUALIFIER ?
-

[HTTP://EVERGREENPTSA.ORG/PAGE/ENRICHMENT/SCIENCE](http://evergreenptsa.org/page/enrichment/science)

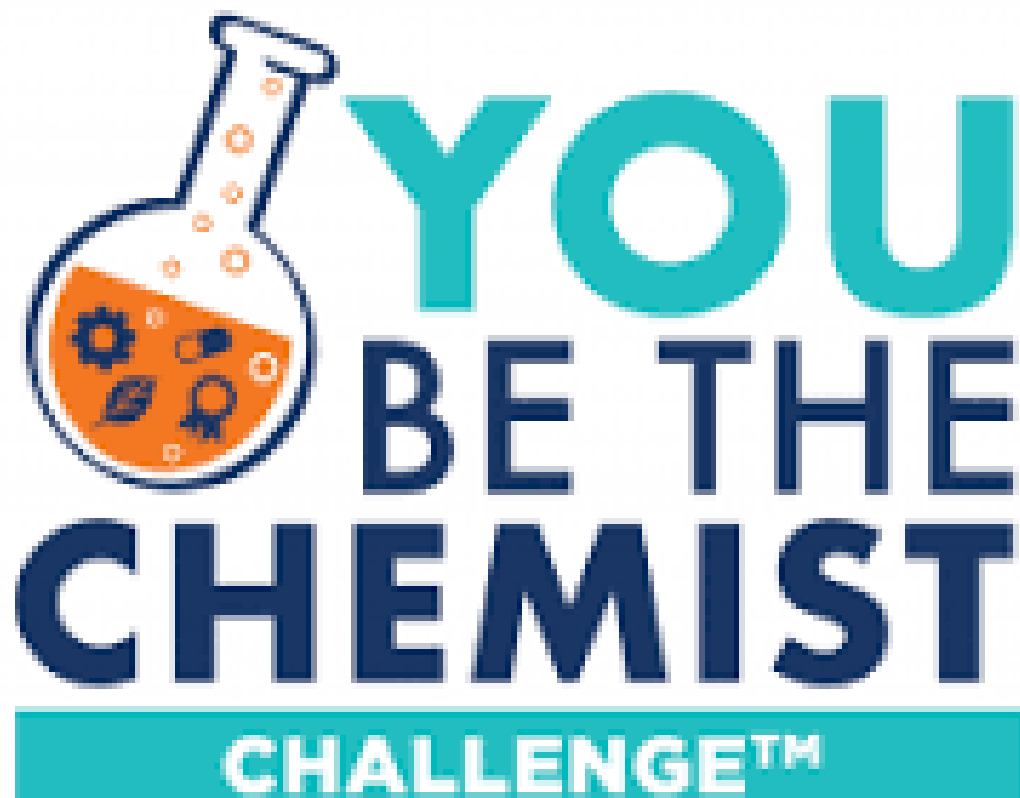
Timer
Parent
general
Moderator
Check-in Grading
Volunteer
Coach
Setup Keeper
Runner
Score
Judge

VOLUNTEER



THANK YOU!

SCIENCETEAM@EVERGREENPTSA.ORG



PASSPORT TO SCIENCE EXPLORATION:
THE CORE OF CHEMISTRY

YOU BE THE CHEMIST (YBTC)

- An interactive academic contest that encourages students in grades 5-8 to explore chemistry concepts and their real-world applications.
- Date: Feb 2020
- Location: EMS

SCIENCE OLYMPIAD (SO) MIDDLE SCHOOL - DIVISION B

- Highly competitive
- Maximum of 6 teams per school
- Up to 15 students per team
- Competing in 23 different events under 5 different categories
- Theory events : 50 min written test with or without labs
- Technology and engineering events : scored based on points for tasks performed
- Between 2 – 3 students for each event
- Students within a team take on 2 to 4 events



EMS SO HISTORY

2016

- State – 20 teams – 5th & 11th

2017

- State 22 teams – 2nd Place

2018

- State 22 teams – 1st & 7th
- National - 20th

2019

- State 22 teams – 1st & 4th
- National – 17th



COMMITMENT

- Syllabus - High School or higher
- Individual student prep time – 2 to 4 hrs /Week/event
- Event team prep time – about 1 - 2 hrs per week
- Technology and Engineering events take longer time
- + Successful teams meet for 3 – 4 hrs over weekend for combined team activity
- Travel - Potential travel to regional, state competition or even national competition based on qualification
- Parents time commitment – Infinite
- Team coach time commitment – Infinite

EXPENSES (BALLPARK)

- Individual student expense
 - EMS registration fee - TBD
- Expense for each team
 - Team registration fee of about \$260.00
 - Materials about \$300 - \$400 per student
 - Extra invitation and other tournaments fee
 - Travel and accommodation expense as needed

TIMELINE

School Team registration
with SO Org

- Sep 3rd - Dec 1st

**Invitational
Tournaments** TBD (Based
on last year dates)

- Camas HS – Dec ^{1st} week
- Northshore MS – Jan
2nd/3rd Week
- Chinook MS – Feb ^{1st} –
^{2nd} week

Regional Tournaments
TBD (Based on last year
dates)

- Northwest Region –
Bothell High School
Mar ^{2nd} – ^{3rd} week (EMS
belongs in this region)

State
Tournament TBD (Based
on last year dates)

- Highline College –
April ^{1st} – ^{2nd} week

National Tournament

- May end / June 1st
week.

RESOURCES

- National Science Olympiad web page : <https://www.soinc.org/>
- Science Olympiad rules manual : <https://store.soinc.org/us/page/Welcome>
- Division B events and study material : <https://www.soinc.org/events/2020-division-b-events>
- Science Olympiad state chapter : <https://washingtonscienceolympiad.com/>

WHAT'S NEXT

- PTSA is working on process for forming teams
- Indicate if your student is interested in SO on Science Club registration form
- Please keep a close watch on PTSA emails and Facebook updates for next steps
- Interested in being a coach for a SO team. Sign up at Science Club information desk after this presentation
- Q&A