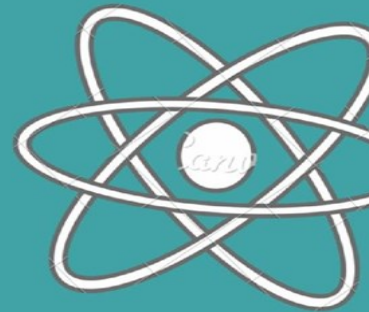


**S  
C  
I  
E  
N  
C  
E  
  
O  
L  
Y  
M  
P  
I  
A  
D**

Join the  
**REDMOND  
MIDDLE  
SCIENCE TEAM!**

And learn/compete in a topic of your choice!

**2021 - 2022**



**N  
S  
B  
  
Y  
B  
T  
C**

# Agenda for Info Night

- Science Team and its Goals
- Club Committee and ways to volunteer
- Teacher and School support
- Science Competitions for 2021-22
  - Science Olympiad (SO)
  - National Science Bowl (NSB)
  - You Be The Chemist (YBTC)
- Science Mentoring sessions
- Q&A

# Science club goals 2021-22

- Enhance Learning of science through awareness and participation and empower Students to achieve their best.
- Promote peer growth and Club spirit across RMS to send the best possible teams to represent RMS at Regional and State level competitions... and Nationals!!
- Facilitate increased usage of school facility, teacher support & external resources
- Be Flexible, Be Adaptive, Build on Last year to keep the Momentum !!!
-

# SCIENCE TEAM

Science Team is a PTSA club run by Volunteer parents

Role		Name	Email Address
Core	Chair	Shalu Mehta	<a href="mailto:scienceteamchair@rmsptsa.org">scienceteamchair@rmsptsa.org</a>
	Co- chair	Prachi Mehrotra	<a href="mailto:prachibhalla@hotmail.com">prachibhalla@hotmail.com</a>
SO Managers	8th Grade	Sangeetha Subramanian	<a href="mailto:sangeethsuno@gmail.com">sangeethsuno@gmail.com</a>
	8th Grade	Vikas Singh	<a href="mailto:vikarsingh@hotmail.com">vikarsingh@hotmail.com</a>
	7th Grade	Dongmin Liu	<a href="mailto:dongmin.liu@gmail.com">dongmin.liu@gmail.com</a>
	6 <sup>th</sup> Grade		
NSB Lead	8th Grade		
	7th Grade	Sowmya Kodimela	sowmya.kodimela@gmail.com
	6th Grade		
YBTC Lead			
Budget Coordinator		Shweta Shrivastava	Shweta.j.Shri@gmail.com
Science team Mentors- Parent Lead		Sumit Kaur	sumitkaur@gmail.com

**Science Team Teacher Support : Ms. Brenna Nelson**

*For Details on Role Descriptions see back up slides*

# Teacher support : Ms. Brenna Nelson

## **Teacher support**

- advises students when requested for particular event coaching across teams
- provides classroom /pod space for weekly learning sessions.
- Helps accessing school equipment and resources when needed.

We are very thankful to Ms. Nelson for her kindness and support

We will be mindful about using her time for subject coaching.

Any questions related to the club and its processes should be directed to the committee as this is a PTSA club. Team coach / Parent volunteers must always be present as chaperones and students should not be left unattended on school premises , "As Applicable".



# EXPECTATIONS FROM PARENTS

1. Science Team will **do their best** --- they are all volunteers ... easy to criticize without knowing in detail
2. There is no solution that fits all
  - a. Provide suggestions,
  - b. Respect current volunteers --- embrace “Disagree and Commit”
3. When a kid participates in Science Club – parents are expected to do some volunteering when being asked
4. Decision of Science Committee will be final. You trust them to do well...
  - a. Again, provide perspectives but “Disagree and Commit” and move on.

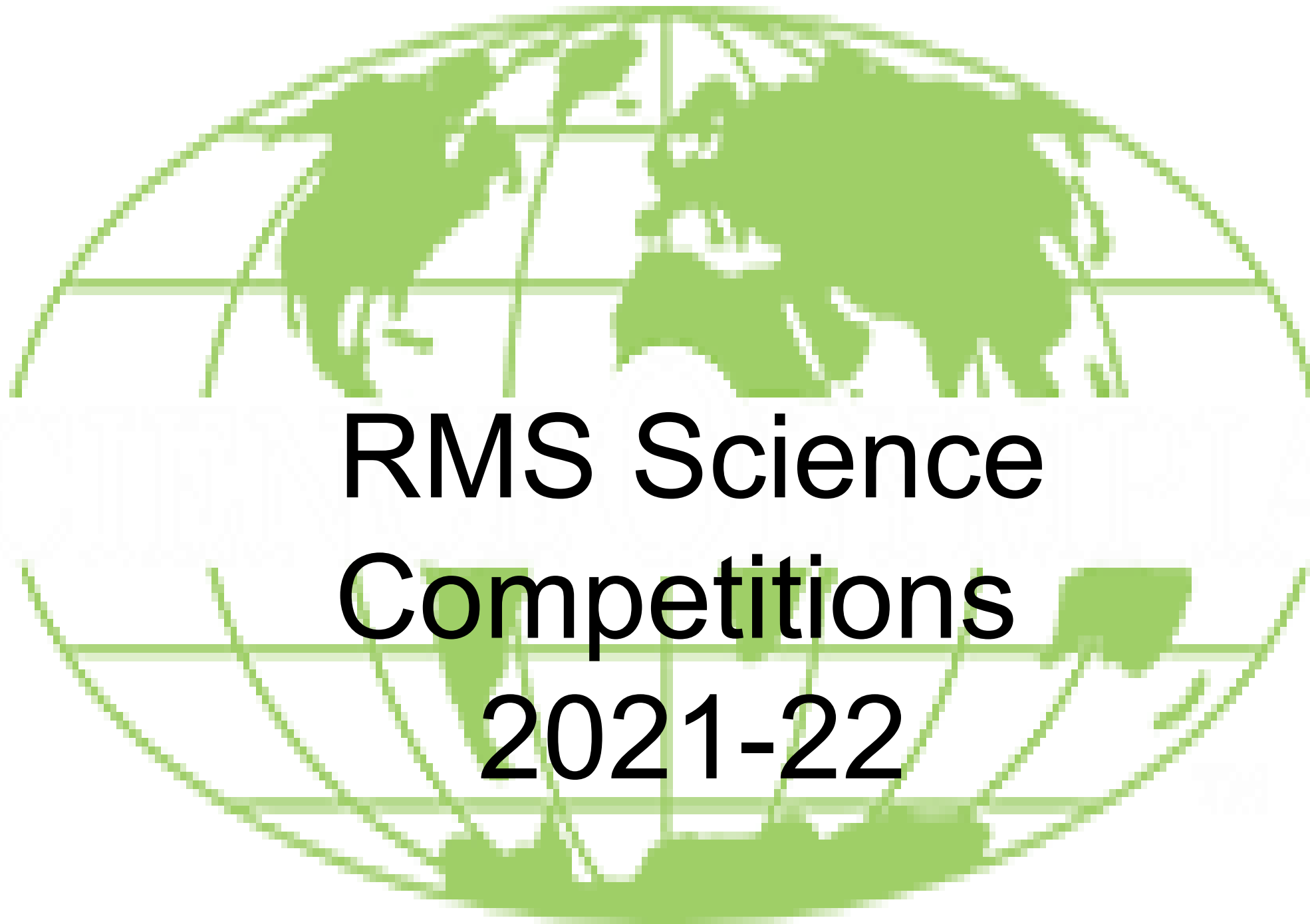
# NEW this year

- Reminder...All communications with external invitational and regional event managers should go only through Science Olympiad head coach – **Prachi Mehrotra and Shalu Mehta**
- Invitationals, Regionals and State testing dates for Science Olympiad are not available at this time

# Budget

- How Budget Works and tied to Fees
  - Controlled and Monitored by PTSA
  - Income = Expense and No Carry Forward
  - Volunteering Hours Counts + Employee Matching
- Income
  - Volunteering Match + Membership Fees
- Expense
  - Registration Fees
  - Science Material
  - Internal Event expense
  - ... and more





**RMS Science  
Competitions  
2021-22**

# SCIENCE OLYMPIAD

<https://www.soinc.org/>



- > Science Olympiad is an international non-profit organization devoted to improving the quality of science education.
- > For secondary schools, Science Olympiad functions much like a football or soccer team, Each school based team is allowed to bring 15 students who cross train for 23 topics.
- > By combining events from all disciplines, Science Olympiad encourages a wide cross-section of students to get involved.



# RMS & SCIENCE OLYMPIAD

RMS will participate this year with multiple teams (2+) across all grades

## Science Club coordinators

- Dongmin Liu
- Sangeetha Subramanian
- Vikas Singh



## Background of RMS Science Olympiad

- > 2016-17 [39 members]: 3-4 teams started the year - 2 teams went to Regionals
- > 2017-18 [60 members]: 4 teams started the year - 4 teams went to Regionals - 2 teams went to State ; Placed 2<sup>nd</sup> and 3<sup>rd</sup> place
- > 2018-19 [120 members], [increased diversity]: 8 teams started the year -6 teams went to Regionals -2 teams went to State; Placed 2<sup>nd</sup> and 6<sup>th</sup> place
- 2019-2020 [60 members]: 4 Teams started the year; 2 teams qualified for regionals
- 2020- 2021 [65 members]: 5.5 Teams started the year; All teams went to regionals- 2 teams qualified for state and 1 team qualified for Nationals

# EVENT FORMATS FOR 2022 & SO Topics

## Formats

- Traditional format (Total of 23 events)
  - Build events , Lab Events and Study Event

Life, Personal & Social Science-5	Earth & Space Science-5	Physical Science & Chemistry-5	Technology & Engineering Design-4	Inquiry & Nature of Science-4
<b>Division B 2022 Events</b>				
Anatomy & Physiology (Nervous, Sense Organs, Endocrine) <b>Bio Process Lab</b> Disease Detectives <b>Green Generation</b> (Aquatic, Air & Climate Change) Ornithology  <p style="text-align: center;"><u><b>Trial Events</b></u></p> Agriscience Botany Home Horticulture	Dynamic Planet (Hydrology) Meteorology (Climate) Road Scholar <b>Rocks &amp; Minerals</b> <b>Solar System</b>	<u>Physics</u> <b>Crave the Wave</b> <b>Sounds of Music</b> <b>Storm the Castle</b> <u>Chemistry</u> Food Science Crime Busters  <p style="text-align: center;"><u><b>Trial Events</b></u></p> <b>Solar Power</b>	<b>Bridges</b> <b>Electric Wright Stuff</b> Mission Possible Mousetrap Vehicle  <p style="text-align: center;"><u><b>Trial Events</b></u></p> <b>Aerial Scramble</b> <b>Digital Structures</b>	<b>Codebusters</b> Experimental Design Ping Pong Parachute Write It, Do It  <p style="text-align: center;"><u><b>Trial Events</b></u></p> <b>Write It CAD It</b>  <i>Approved 04/09/21</i>

# EVENTS & RMS BLOCK STRUCTURE

Option 1	Topics	Student
Block 1	Mission Possible Solar System Meterology	Student 1 Student 2
Block 2	Storm the castle Dynamic Planet Food Science	Student 3 Student 4
Block 3	Mousetrap vehicle Disease Detective Rocks and Minerals	Student 5 Student 6
Block 4	Anatomy & Physiology Green Generation Ping Pong parachute WIDI	Student 7 Student 8
Block 5	Bio Process lab Ornithology Bridges	Student 9 Student 10
Block 6	Electric Wright stuff Exp. Design Road Scholar Codebuster	Student 11 Student 12
Block 7	Crave the Wave Sound of Music Crime Buster	Student 13 Student 14
Block 8	Exp. Design WIDI Codebuster	Student 15

❖ To come up with the Blocks, the committee carefully considered following factors:

- **Schedule**
- **Workload of each event**
- **Balance of build, knowledge, lab, and hybrid events**
- **Science disciplines**
- **Students' potential interests**

# Team Formation Criteria (guided by inputs from WSO)

- **Opportunity for RMS to win at Regionals and State** (utilize previous experienced students)
  - Need at least one strong team – well practiced with at least 3 invitationals
- **Fair Opportunity for majority RMS students** (how many teams/ students can we accommodate)
  - Maximum number of teams involving all students
  - Each Sci Oly student attends multiple invitationals
  - Every hardworking and high performing student gets an opportunity to represent RMS at External Competitions
- **Requirements for Merger to create stronger SO Teams**
  - Event blocks ( can use even if teams go to different invitationals) **new approach we tried last year, planning to carry forward.**

# TEAMS - LOGISTICS

## Basic Team Structure

- > 15 students per team
- > Each member needs to take at least 3 events
- > Will have 2+(max 6) teams based on interest
- > Event selections will be based on interest. SO Managers will help coordinate.
- > Each team will have 2 team coaches (**Need volunteers to make it work!**)
- A set of 2-3 partners on the team for at least 3 events
- > Partner choices are not guaranteed
- > Partners study together for a given event and take the participate together

## Science Olympiad resources

Rules and Guidelines - <https://www.soinc.org/>

Student Center (Wiki) - <https://scioly.org/>

My SO- <https://www.soinc.org/myso>

# My SO

**LESSON PLAN**  
[ First Wednesday of the month ]

**STEM SESSION**  
[ 15th day of the month ]

**STEM SHOWDOWN**  
[ Last Wednesday of the month ]

**2021-2022**  
**ACADEMIC YEAR**

**SEPTEMBER 2021**

Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

**EPIDEMIOLOGY**

**OCTOBER 2021**

Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

**FLIGHT**

**NOVEMBER 2021**

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23*	24	25	26	27
28	29	30				

**ASTRONOMY**

**DECEMBER 2021**

Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21*	22	23	24	25
26	27	28	29	30	31	

**ROCKS & MINERALS**

**JANUARY 2022**

Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

**ANATOMY & PHYSIOLOGY**

**FEBRUARY 2022**

Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

**FORENSICS**

**MARCH 2022**

Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

**SOLAR POWER**

**APRIL 2022**

Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

**GREEN GENERATION**

**MAY 2022**

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

**ROBOTS**

\*The November and December dates of the STEM Showdowns have been adjusted to avoid holidays.



- 9-month calendar-based event
- Do not need to be a Science Olympiad team member to participate
- Single player
- Fee - \$10 (paid by the student)
- Soinc.org/myso
- Top 25 Winners in each division will receive a Science Olympiad MY SO Medal, laptop sticker and certificate.



# National Science Bowl

- National Science Bowl® is a nationwide academic competition that tests students' knowledge in areas of science and mathematics.
  - Teams of 4 students (from same school) participate in a rapid-fire buzzer rounds.
  - It is a verbal competition testing students in all branches of science including Biology, Chemistry, Earth Science, Physics, Energy, and Math
- 
- Max Teams: 24

## Key Dates:

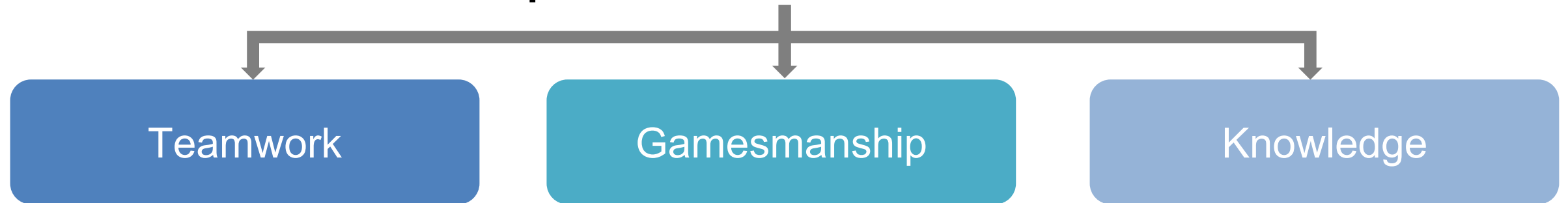
- NSB Mockup (run by Buzz Bowl) : Dec 2021
- Regionals: Jan, 2022
- Nationals: May, 2022

## Resources

- [NSB Information](#)
- [NSB Rules](#)
- [Sample Questions](#)
- [Coaching Advice](#)

# National Science Bowl – Team Selection & Responsibilities

## 3 pillars of success at NSB



### Team creation:

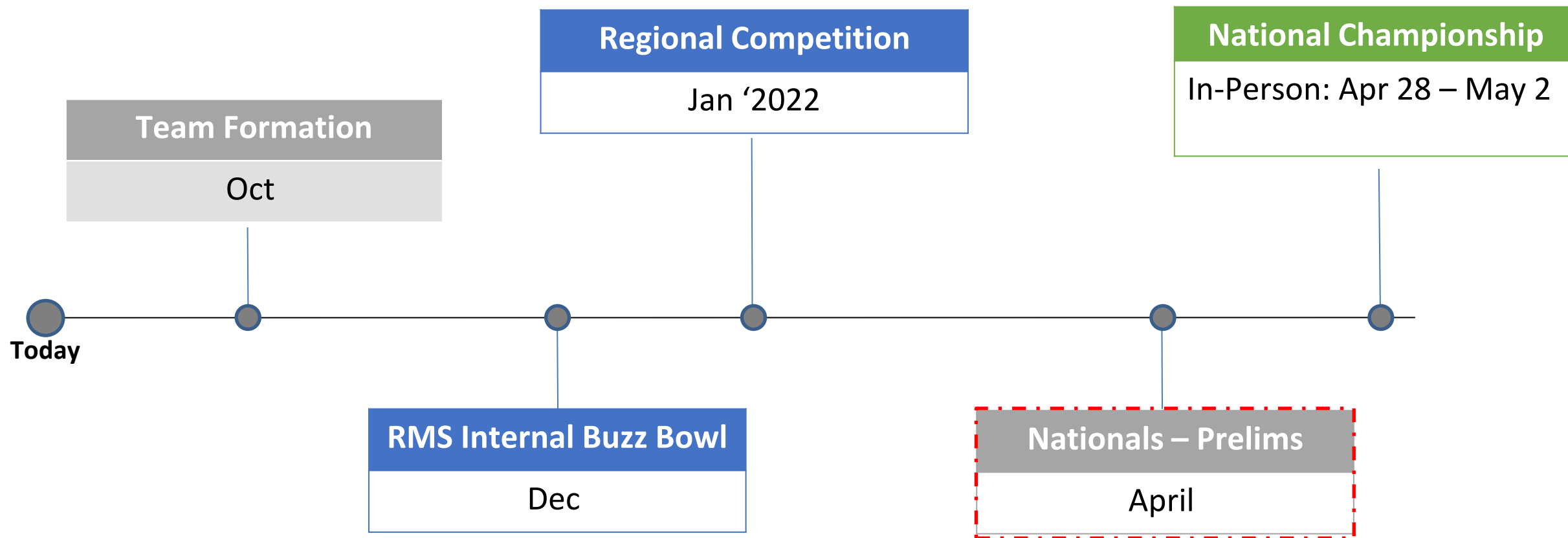
Parent coaches form teams of 4-5 students. RMS committee can help connect interested students to form a team if needed

### Responsibilities of Parent coaches:

- Leverage student's expertise in a specific Science area
- Assign topics and help team ramp-up. 5th student back-up
- Help students with strategies to respond fast in a buzzer format
- Encourage team spirit and flexibility to take on extra topics where team needs help.
- Support knowledge sharing, explaining them the solution, etc.

**RMS Science Club will hold Internal Buzz Bowl to choose top 1 team to represent school at NSB Regionals**

# Road to NSB National Championship

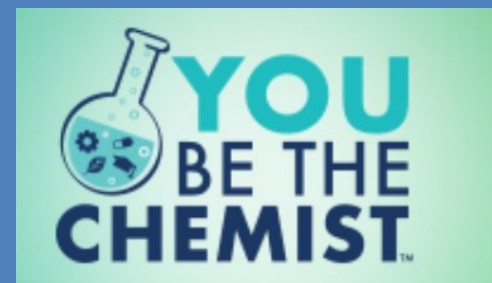


As of October 1, 2021, the following will be required for all students, coaches, staff, and volunteers attending the 2022 National Finals:

- DOE will require proof of COVID vaccination (for those eligible) or a negative COVID test dated April 26, 2022, or later.
- For those not vaccinated (including middle school students who may not be eligible for the vaccine), each individual will be tested daily during the event: April 28 – May 2, 2022.

Please ensure that each student and their parent/guardian is aware of this requirement **BEFORE** you register the student on the team.

# YBTC



You Be The Chemist (YTBC) Challenge is a fun and multilevel academic competition that encourages students in grades 5-8 to explore chemistry concepts and their real-world applications.



**No selection – everyone can participate. Students are eligible to compete in groups of four.** There will be two participation tracks for the 2021-2022 Challenge cycle – in-person and virtual. Team Coordinators must select a participation track when they register their team. This selection may not be changed unless local health guidelines change for the area in which a team will **participate**.



School and Regional Level: [Study Materials available online](#)



Useful Resources: <https://www.chemed.org/programs/challenge/competition-rules/>  
<https://www.chemed.org/programs/activity-guides/>

## Part One: Academic Competition

- A combination of short-answer and multiple-choice questions
- Students answer questions individually
- Winning teams will have the highest average participant scores

## Part Two: Video Competition



PARTICIPANTS CREATE  
A VIDEO



COLLABORATE IN-  
PERSON OR VIRTUALLY



QUALIFYING TEAMS'  
VIDEOS ARE SCORED

## Part Three: National Challenge

- **Video Screening and Q&A:**
  - Top teams can discuss:
    - Research
    - Conceptualization
    - Explored Topic
  - Panel asks questions
- **Industry-Inspired Panel:**
  - Industry ask students about their research and how it relates to sustainability
- **In-Person Event:**
  - Included as part of the potential CEF STEM Summit, pending safe conditions

# YBTC: Timeline

## October 6 – December 31, 2021

- Registration open

## January 4, 2022 – March 4, 2022

- In person Regional challenges begin. Teams collaborate to create a video based on a prompt exploring chemistry concepts that will be evaluated by a panel of judges. *All* teams will create and submit a video. The deadline to submit the video is March 4 2022.

## March 5, 2022

- Teams participating in the virtual track compete in the virtual academic competition on this date, where they will answer multiple-choice and short-answer questions during the event. Teams must be identified before the virtual event. During the virtual event students answer questions individually, and a student's score is averaged with those of their teammates to calculate a team's overall score.

## May 2022

- State winners and national finalists will be announced in May.

## June 5-7, 2022

- The National Challenge will be held in-person in Houston, TX.

# Volunteers

- All hands
- Coach your child's team for SO/NSB/YBTC
- Teach/help organize science study sessions
- Chaperone team events / study sessions
- Other (your choice)

\*Volunteer sign up here: <http://rmsptsa.org/Page/PTSA/Volunteer>

# RMS S3 - Science Study Sessions

- Virtual learning sessions (once/twice a week)
  - Tuesday (3-4pm) and Saturday (9.30-10.30am)- **Subject to change**
  - SO – every week
  - NSB/YBTC - alternate week
  - My SO – once a month
- Mentors - High school students
- Platform – Microsoft Teams(student school email)
  - RMS PTSA Science Team channel – **RMS S3**(Science Study Sessions)
  - SharePoint access for all the resources  
<https://rmsptsa.sharepoint.com/sites/PTSAScienceTeam>



# Tentative Timeline for various Science Competitions

Website updates – ongoing – please check weekly in Sep and Oct

## Science Olympiad

- ~ Team Formation : Mid October
- ~ Invitational SO : Starting December
- ~ Regional : ~ February – March
- ~ State : Around April
- ~ National : Around May

## National Science Bowl

- ~ Registration: Mid October
- ~ Team formation: October
- ~ Internal NSB: Early December
- ~ Regional : Jan 2022 \*
- ~ National : Apr 28 - May 2, 2022 \*

\* The regional schedule will be provided in December.

## YBTC

- ~ Team Formation : Mid October

# Q & A



Ask your question in Q&A on the right side of your window!

**REGISTRATION IS NOW OPEN (Sep 22 – Sept 30, 2021)**

**How to register??**

- Go to RMS PTSA website --->Programs --->Science Team --->Click here for more info OR you can directly enter <http://rmsptsa.org/Page/Programs/ScienceTeam>
- To register – Click on <http://rmsptsa.org/Packet/ScienceTeamReg>

Questions?? Contact us at : [scienceteam@rmsptsa.org](mailto:scienceteam@rmsptsa.org)