

MathWorks is a proud sponsor of the MIT Science Trivia Challenge and wishes the teams good luck!





SCIENCE TRIVIA CHALLENGE!



Thursday, April 19, 2018 Kirsch Auditorium, MIT

Sponsored By: MathWorks SCIENCE FESTIVAL Web.mit.edu/trivia facebook.com/MITtrivia @MITtrivia Live Tweet using #MITtrivia18

High School Division - Round A

-		
Heisenberg's Certainty Principles	King Philip Regional High School	1
Fish	Newton South High School	2
Empress Iris' Regime	Newton North High School	3
CRLS Science Falcons	Cambridge Rindge and Latin School	4
Fig Neutrons	Algonquin	5
Brookline High School	Brookline High School	6
Montrose Rare Metals	Montrose School	7
The Sly Shrews	Shrewsbury High School	8
Scarlet Knights	North Andover High School	9
High School Division - Round B		Table
The Molympians	King Philip Regional High School	1
Fish 1	Newton South High School	2
Insert Bad Science Pun	Newton North High School	3
CRLS Silver and Black	Cambridge Rindge and Latin School	4
Undecided	Algonquin	5
Fermi Answers	Acton Boxborough	6
Warriors	Andover High School	7
The Shrew's Berries	Shrewsbury High School	8
		9
Middle School Division		Table
Smarticle Particles	King Philip Middle School	1
STEM Raiders	Pennichuck Middle School	2
Science Guys	Madeline English School, Everett, MA	3
Curious Keen	Curious Science & Learning - Chelmsford	4

Table

5

6

7

8

9

General Rules

ScienceForFun

Clarke Barkers

Asteroids

 $E^{2}=(mc^{2})^{2}+(pc)^{2}$

Nano Know-It-Alls

- This competition is for fun, so play fair!
- No outside references are allowed, including books, cheat sheets, informative t-shirts, computers, handheld devices, etc. Pencils, pens and blank paper are allowed and are provided.

ScienceForFun

Franklin

Nahsua, NH

King Philip Middle School

Clarke Middle School, Lexington

 Team members may confer within their team on each question, but neither team members nor audience members are allowed to shout out answers or offer any other distractions while teams are considering questions.



Thanks to all of our volunteers!

COMMITTEE MEMBERS & VOLUNTEERS: Bob Ferrara (MIT '67), Co-Chair; John McGoldrick (MIT '73), Co-Chair; Alisha Weight (MIT '13), Co-Chair; Bonny Kellermann (MIT '72), Co-Chair; Meghan Jendrysik (MIT '97), Co-Chair; Jesse Benck, Catherine Cooper (MIT '00), Chris Dippel (MIT '75), Orville Dodson (MIT '68), Richard Dower (MIT '67), Briana Dunn, Ngozi Eze (MIT '05), Richard Jendrysik, Andre Kelly (MIT '00), Diane Korelitz, Ted Korelitz (MIT '56), Jennifer Lam, Peg LeGendre, Jeremy Li, Jacky McGoldrick, Chris Santos (MIT '74), Brian Saper, Karen Seo (MIT '75), Flora Su (MIT '18), Ivan Sysoev (MIT '10)

QUESTION CONTRIBUTORS: Chris Dippel* (MIT '75), Ngozi Eze* (MIT '05), Jacky McGoldrick, John McGoldrick* (MIT '73), Alex Rosen (MIT '94), Chris Santos* (MIT '74), Megan Snyder*, Alisha Weight* (MIT '13) *These contributors also served as question editors.

> Interested in helping next year? Do you have questions to contribute? Contact us at: sciencetrivia@mit.edu or web.mit.edu/trivia

Like us on Facebook to see/add photos from tonight at http://www.facebook.com/MITtrivia

Prizes

Everyone here is a winner. Thank you for participating! **All participants** receive a certificate of participation and a pen from Mathworks, a bag and bracelet from the Cambridge Science Festival, a coloring book from Cell Press, and one free pass each to: the Museum of Science, the Discovery Museum of Acton, MA, and the MIT Museum. The **Middle School Runner-Up** team members will each receive a MIT sweatshirt from the MIT Coop. The **High School Silver Runner-Up** team members will each receive two additional passes to all three sponsoring museums, and a USB bracelet from the Cambridge Science Festival. The **High School Gold Runner-Up** team members will each receive a MIT sweatshirt from the Cambridge Science Festival. The **High School Gold Runner-Up** team members will each receive a MIT sweatshirt from the MIT Coop. The **High School Silver Runner-Up** team members will each receive a MIT sweatshirt from the Cambridge Science Festival. The **High School Gold Runner-Up** team members will each receive a MIT sweatshirt from the MIT coop. The **Middle School, High School Gold, and High School Silver winning** teams will each have lunch or dinner with one of our Nobel Laureates.

Thank you to our Nobel Laureates!

H. Robert Horvitz, MIT Professor of Biology



Wolfgang Ketterle, MIT Professor of Physics 2001 Nobel Prize Winner "For the achievement of Bose-Einstein

2002 Nobel Prize Winner "For discoveries concerning genetic regulation of organ development and programmed cell death"

condensation in dilute gases of alkali atoms, and for early fundamental studies of the properties of the condensates"



Richard R. Schrock, MIT Professor of Chemistry 2005 Nobel Prize Winner "For the development of the metathesis method in organic synthesis"

Thank you to our Prize Sponsors!

Museum of Science, Boston, MA Discovery Museum of Acton MIT Museum MIT COOP Cambridge Science Festival Cell Press



5:00 PM - 6:00 PM	Registration & Meet the Scientists
6:00 PM - 6:05 PM	Welcome
6:05 PM - 6:25 PM	High School Round A
6:25 PM - 6:45 PM	High School Round B
6:45 PM - 7:00 PM	Intermission
7:00PM - 7:05 PM	A Word from our Sponsor, Mathworks
7:05 PM - 7:45 PM	Middle School Round
7:45 PM – 8:00 PM	Intermission
8:00 PM - 8:20 PM	High School Silver Final Round
8:20 PM - 8:40 PM	High School Gold Final Round
8:40 PM - 9:00 PM	Awards Ceremony



Our Moderator

Michael Short

Prof. Michael Short joined the faculty in the Department of Nuclear Science and Engineering in July, 2013, just the latest stop in what can be described as a lifetime in/around MIT. He was born in Brookline, grew up in Swampscott, and started coming to MIT in high school on weekends for the HSSP enrichment program. He signed on as an undergraduate researcher (UROP) in nuclear materials, and never left either the field or the school. Now, as an assistant professor, he studies and teaches about the nature and effects of radiation damage on materials for nuclear energy. He also teaches the Introduction to Nuclear Physics course, where this year students burned 1,000 bananas to concentrate the Potassium-40 (a naturally occurring radioactive isotope), and measured their radioactivity at the MIT nuclear reactor laboratory.



"Interdisciplinary work is where the fun stuff is; it's where you get to work on challenges that many people consider too difficult, or that require a broader perspective."

SCIENCE TRIVIA CHALLENGE!

Meet the Scientists

Jesse Benck

Engineering, MIT

Roxbury Latin School

Post-doctoral Associate

Rick Dower

Briana Dunn

Post-doctoral Associate

Science Chairman Emeritus











Belcher Lab, Department of Biological

Chiang Lab, Department of Materials Science and

Jeremy Li Post-doct





Post-doctoral Fellow Belcher Lab, Koch Institute for Integrative Cancer Research

Flora Su Recent Graduate Heald Lab, Department of Civil and Environmental Engineering, MIT

Ivan Sysoev PhD Student Lab for Social Machines, Media Lab, MIT