



Exhibit Descriptions

🍎 indicates a WEF STEM Grant in Action & Excellence in Wellesley Public Schools

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LOCATION	CATEGORY	EXHIBIT ~ EXHIBITOR	GRADES	EXHIBIT DESCRIPTION
2nd Floor Hallway (Room 226)	Coding	1 on 1 Programming Lessons in Python ~ SummerTech ★	6-12	Earth's best youth tech program is coming to Weston! We've been training programmers, artists, and leaders since 2002, and we're thrilled to finally bring our famous and unparalleled program to your neighborhood. Find out what all the fuss is about!
Cafeteria	Engineering	3D Printing ~ George Roberts	K-12	Who needs construction paper when you can build a construction truck? Stop by the 3D printing station to watch bracelets and other objects appear right before your eyes.
Cafeteria	Living Things	A World of Plants: Form and Function ~ Wellesley College Botanic Gardens	K-12	A hands-on exhibit from the Wellesley College Botanic Gardens' collections will introduce people of all ages to a wide variety of plants that demonstrate unique adaptations to their environments.
Cafeteria	Engineering	Aluminum Foil Challenge ~ WPS Elementary Science ✳️	K-8	design and test a boat made from aluminum foil and see how much weight it can hold
Cafeteria	Coding	App Building Fun with Quick Base ~ Quick Base ★		Are you into games and interactive quizzes? Want to try your hand at building an app in 5 minutes? Come check out what Quick Base has to offer.
Gym	Science of Being Human	Arthroscopic Sports Medicine Instruments Hands-on Demonstration ~ Depuy Synthes Sports Medicine (div. of J&J)	9-12	Sports Medicine surgery for defects such as torn ACL or torn rotator cuff is done using arthroscopic instruments. The design and use of these instruments will be explained with a hands-on demonstration. Design Team member roles will be explained.
Cafeteria	Science of Sports	Avalanche Safety for All Ages ~ BRASS	3-12	Avalanches are like monsters lying asleep under what looks like pristine snow which entices all winter sports enthusiasts. They can become deadly giants at any moment. Come learn how to know if you are in danger when travelling on snow.
Cafeteria	Chemistry and Physics	Bacterial electricity ~ Labrecque Family	K-5	Some bacteria that reside in soil can produce electrical energy that can be harvested by a charge accumulation circuit. Soil properties affect microbial diversity and activity. More power can be generated by soil rich in organic compounds. Craft: fabric and googly eyes to make funny bacteria. The longer strips can represent nanowires that help bacteria interconnect to donate electrons to our contact from far away. In a similar design, we will make earthworms and make a puppet performance about how worms help bacteria by digesting complex foods.
Cafeteria	Chemistry and Physics	Balance Toys ~ Wicked Cool for Kids	K-5	Explore the basics of balance in action! We will build and design gizmos that illustrate the principles of balance and weight distribution.



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Outside	Chemistry and Physics	BioBus ~ BioBus Inc.	K-12	The BioBus is a mobile laboratory that gives people a chance to discover the hidden details of the world around them. Onboard the BioBus, scientists train people of all ages to observe samples using research grade microscopes and equipment.
Cafeteria	A in STEAM	Blast Off Space Exploration Photo Booth ~ Eric Barry	K-12	Get a picture in a space suit in front the Museum of Natural History space photo.
Gym	Robot Zoo	Boston Dynamics Robots ~ Boston Dynamics	K-12	We will bring a Spot robot to drive around as well as some robot parts to let kids handle and inspect and a few laptops running video clips of our robots in action. We will have a few of our engineering staff on hand to talk to the kids.
1st Floor Hallway (Room 156)	Robot Zoo	Botball Competition Team at Work ~ WHS Botball 		Come observe students in the Robotics room working on their Botball competition robots. (Room 156)
2nd Floor Hallway (Room 248)	Science of Being Human	Brain Booth ~ Wellesley College Neuroscience Program	K-12	At the Brain Booth, you will get to hold a real sheep brain and learn the basic parts of the brain and what they do. We will also explore a real human brain that has been sliced in different ways and embedded in plastic. Come see all this and more!
Cafeteria	A in STEAM	Cambridge Science Festival presents the Augmented Reality Sandbox ~ Cambridge Science Festival	K-12	Dig in! Interact with our cool sandbox, which lets you build 3D topographic maps in real time.
Gym		Careers in Aviation ~ Aero Club of New England	9-12	Focusing on careers in aviation, aviation maintenance, and aviation support, we will have a hands-on simulator to fly. We are all pilots and look forward to share our passion for aviation and flying experiences with you !
Gym	Chemistry and Physics	Civil Engineering - Hands On STEM Activities ~ Boston Society of Civil Engineers Section (BSCES) Outreach Committee	K-12	Hands On STEM Activities including a 12 ft long bridge the kids will have to build.
Gym	Coding	Code Ninjas: Learn To Code By Building Video Games ~ Code Ninjas 	K-8	Code Ninjas allows kids ages 7-14 a place to learn to code by building video games. Our unique belt program allows kids to progress through several different coding languages while at the same time having a fun time.



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Gym	Robot Zoo	Come Play with KIBO - The fun and playful STEAM robot kit for kids 4-7 ~ KinderLab Robotics, Inc.	K-2	KinderLab is the creator of KIBO, a screen-free robot based on 20 years of child development research, that lets 4-7 year-olds build, code, decorate, and run their own robot. KIBO has proven efficacy in helping kids learn STEM, playfully!
Gym	Living Things	Come see Nile, a Life-sized Inflatable Whale ~ The Whalemobile	K-5	Come see Nile, a life-sized inflatable whale, modeled after one of the humpback whales that spends her summers off the coast of Massachusetts. Go inside to learn how we are similar and different.
2nd Floor Hallway	Science of Being Human	Commemoration - World DNA Day - 25 April 2019 ~ Enku Kebede-Francis	6-8	While emphasizing the fact that the human species is 99.5% alike at the DNA level, Enku Kebede-Francis of Wellesley will illustrate the 0.5% phenotypes that make humans unique and also demonstrate the extraction of DNA from fruits.
2nd Floor Hallway	Our Planet and Beyond	Comparative Planetology: A Collaboration of Science and Art in the Astronomy Elective ~ WHS Astronomy 		Come observe a showcase of student work from the astronomy elective curriculum which highlights the intersection of interpreting NASA imagery for geologic and atmospheric processes of celestial bodies with mono printmaking. This is part of the culminating comparative planetology project in the solar system unit.
Cafeteria	Coding	Computational Challenge - Survive the Zombies! ~ Sprague Elementary School PTO	3-12	Test your analytical skills by trying to survive an outbreak of the zombie virus! Flex your math muscles and decide the best way to save your squad. A simulator will take your answers show the outbreak unfold in real time. How long can you survive?
Cafeteria	Engineering	Creative Schools and 21st Century Learning - Project Based Learning in the Elementary Schools ~ WPS Elementary Science 	K-5	From designing buildings to withstand hurricanes, to educating people about ticks, to solving erosion problems at Morse's Pond, come learn about how science is being transformed through Project Based Learning. Using authentic contexts, see how elementary students are approaching science learning in a whole new way.



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Outside	Chemistry and Physics	Curiosity Cube ~ MilliporeSigma ★		In honor of the 150th Anniversary of the Periodic Table of Elements, our 2019 experiences will demystify elements in our everyday lives. <u>Elements in Nature</u> - Using scientific lab tools, visitors learn how important water is to the world and dive deeper into the elements that make it up. <u>Elements in Technology</u> - Visitors learn how raw materials are extracted from the earth while using different elements to engineer a model robot that will assist with raw material extraction. <u>Elements in the Human Body</u> - Through a virtual tour of the human body, visitors discover where specific elements are found within and how elements impact the body.
Cafeteria	Living Things	Curious Creatures Live Animal Presentation ~ Curious Creatures	K-12	Come by and meet our creatures! Our highly-trained staff member will share fascinating facts and stories about each of our animals as we show them and share them with you. Our programs are full of hands-on fun!
Cafeteria	Engineering	Designing and Making from K-9 ~ Fay School	K-12	Come and see how our students are using design thinking to broaden and enrich the learning experience and curriculum.
2nd Floor Hallway	Coding	Digital Bridges ~ Digital Bridges	6-12	Wellesley Digital Bridges is an organization of high schoolers who are committed to bridging the digital divide by providing electronic donations to underserved communities and schools through teaching programming classes.
Cafeteria	Chemistry and Physics	Dry Ice Bubbles ~ LINX	K-8	
2nd Floor Hallway	Engineering	Engineer A Balloon Powered Vehicle ~ Tenacre Country Day School ★	K-12	Build a balloon powered vehicle from simple materials that will travel 100cm. Visitors will design, build and test their vehicles.
Gym	Science of Sports	Engineering in Baseball ~ University of Massachusetts Lowell	6-12	Meet the engineers who use high-speed air cannons to study the sports equipment that you use. The UMass Lowell Baseball Research Center breaks bats, dissects baseballs and performs detailed simulations of the sports equipment.



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2nd Floor Hallway	Engineering	Engineering is for Everybody! ~ Boston University College of Engineering Technology Scholars	K-8	Through their choice of two short activities, children and families will learn about the exciting challenges engineers work on and how they already do things that engineers do!
Cafeteria	Science of Being Human	Environmental & Genetic Causes of Obesity and Diabetes ~ University of Massachusetts Medical School	K-12	This exhibit illustrates how environmental and genetic factors contribute to the epidemic prevalence of obesity and type 2 diabetes, and includes hands-on demonstration of how mice and research tools can be used to understand human diseases.
2nd Floor Hallway (Room 228)	Our Planet and Beyond	Environmental Literacy for Children ~ Wellesley Green Schools / Harvard Planetary Health Alliance / Bates Elementary School PTO	K-12	Quiet Room
2nd Floor Hallway	Engineering	Fun with 3D Printing ~ Toysinbox 3D Printing	6-12	3D printing is the future. Come and enjoy this amazing technology and get some hands-on experience! We will help you 3D print a mini 3D object that you can take home. It is also a great fun to examine the 3D objects we 3D printed.
2nd Floor Hallway (Room 215)	Living Things	Gallus Gallus Domesticus! Meet the Mighty.... Chicken! ~ Natick Community Organic Farm	K-5	There are more than 25 billion chickens in the world, more than any other bird species. Come meet a chicken in person, and learn why they are so important to humans. Discover their fascinating adaptations, interesting animal behaviors, and unique communication style. We'll talk about eggs (why they can be different colors) and how to hatch chicks at home.
Cafeteria	A in STEAM	Gardengate Academy STEAM with an A ~ Gardengate Academy	3-8	We will present STEAM projects where children have to wonder the result, we will use natural materials and Art will be involved,
Gym	Robot Zoo	Get a Taste of Tech ~ Empow Studios STEM programs	3-5	Empow Studios brings technology, arts, and play together for kids ages 7-13. Get exclusive access to beta-testing of student-made games, playing with robotic animals, and immersing yourself in Virtual Reality. To learn more, visit https://empow.me
2nd Floor Hallway	Engineering	Get Your Hands on a High Powered Rocket! ~ Edge on Science 	3-12	See the innards of a one third scale Nike Smoke rocket. NASA used this rocket to study the upper atmosphere in the 60s. Learn all about parachute recovery, the transfer of thrust, payloads and more!



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2nd Floor Hallway (Room 219)	Chemistry and Physics	Gizmo Playground ~ WMS Science 		Gizmos for visitors to try
Cafeteria	Chemistry and Physics	Hands-on Discovery for Families ~ Discovery Museum	K-5	The Discovery Museum of Acton, MA brings hands-on science activities mirroring those found within the museum. Adults and children can work together on fun table-top STEM based activities exploring magnets, engineering, light, and more.
Cafeteria	Engineering	Help Us Solve It! Vehicles and Strawberries ~ Exponent		At Exponent's exhibit, we will show you how engineers and scientists solve technical problems using principles of math and science! Stop by to help our scientists and engineers analyze vehicle safety and extract strawberry's DNA!
Gym	Science of Sports	Injury Risk Screen and Golf Assessment ~ Train Boston Physical Therapy and Sports Center	6-12	Train Boston Physical Therapy Inc. and Train Boston Sports Center LLC will be exhibiting a Y Balance injury screen, an abbreviated golf assessment with our TPI Certified (Titleist Performance Institute) coach, and a fun broad jump test for all ages.
2nd Floor Hallway	Chemistry and Physics	"Jumping Pepper", "Mirrors and Reflections", "Bath Bombs" ~ Fiske Elementary School PTO	K-5	Fiske school organized science fair on Feb 10th and the judges chose 3 exhibits from 3 groups (K-1st, 2nd-3rd, 4th-5th). These 3 exhibits will be displayed at STEM Expo: "Jumping Pepper" "Mirrors and Reflections" "Bath Bombs"
2nd Floor Hallway	Coding	Kickstart STEM ~ Kickstart STEM	3-5	The Kickstart STEM exhibition will conduct engaging STEM activities (marshmallow building challenge, Python coding simulation) to preview an affordable STEM camp for 3-5th graders that will be run by high school students this summer.
2nd Floor Hallway	A in STEAM	Kite Science ~ KitingUSA.com	6-12	The science of kites in flight crosses many years, many disciplines, and led to the invention of the airplane. Join us to see and participate in experiments in aerodynamics and flight.
1st Floor Hallway	Science of Sports	Knot Tying: Learn how to tie the most useful knots. Math/Science at work. ~ Boy Scout Troop 182 Wellesley	K-12	Boy Scouts from Boy Scout Troop 182 will demonstrate some of the techniques used to make a good knot and offer hands-on practice to experiment with knot tying.



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Cafeteria	Coding	Learn about Coding ~ Kids 4 Coding 	K-12	Nationally Recognized KIDS 4 CODING Weekly Summer Tech Programs Held at: -Bentley University Waltham -Lesley University Cambridge -Newbury College Brookline Quality Tech Education for Kids & Teens Full-and Half-Day Programs Ages 7-16
Gym	Robot Zoo	Learn about FIRST (For Recognition and Inspiration of Science and Technology) STEM Experiences for all Ages ~ FIRST in New England	K-12	FIRST (For Recognition and Inspiration of Science and Technology) has offered premium STEM experiences for all ages of our community and is now entering its 30 season with a celebration of the 50 anniversary of Man's landing on the Moon. NEFIRST now
2nd Floor Hallway	Science of Being Human	Learn about the Medical Equipment LIFE FLIGHT Crew Members use Everyday ~ UMassMemorial LIFE FLIGHT	3-12	Medical Equipment LIFE FLIGHT crew members use in everyday practice. Intravenous Fluids, "Stop the Bleed", will discuss hemorrhage control and Tourniquets.
Cafeteria	Coding	Learn about this Youth-Run Club for Kids who love Wireless Technology, Electronics, Space Science, Radio Communications, and Engineering ~ STARS — Sci-Tech Amateur Radio Society 	3-12	STARS — Founded by youth and run by youth, this amateur radio club is for kids who love wireless technology, electronics, space science, radio communications, and engineering. Parents are encouraged to participate with their kids.
Cafeteria	Our Planet and Beyond	Learn about Wellesley's Natural Resources ~ Town of Wellesley Natural Resources Commission	K-12	We will have a watershed model table for students to interact with, as well as information about the Town's watersheds and other natural resources.



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1st Floor Hallway	Engineering	Lego Marble Run and Maze ~ Hardy Elementary School PTO	K-12	Build a LEGO Marble Run or Marble Maze. Use your creativity and understanding of gravity and motion (Physics) to successfully move a marble from start to finish.
Gym	Engineering	Light-Up Paper Circuits ~ Society of Women Engineers - Boston	K-8	
Cafeteria	Chemistry and Physics	MAD SCIENCE DRY ICE CAPADES ~ Mad Science North Boston	K-5	Take an exciting look at the world of dry ice through a series of fun experiments! Children learn about the three states of matter and a lesser known phenomenon called “sublimation,” where a solid turns directly into a gas. They learn the secrets behind the bubbling potions found in Mad Science’s laboratories while answering the question, “What do you think this weird ice cube can do?” Children are amazed by this “cool” class and take a thermo-color-changing cup home for the experiments to continue!
Gym		Mag Lev LEGO Car ~ LETGO Your Mind Summer STEM program	K-8	Participants will create magnetic levitation LEGO cars that travel down a ramp. They will modify their build until it can levitate as many LEGO mini figs as possible down the ramp in the shortest amount of time.
1st Floor Hallway (Room 174)	A in STEAM	Make Videos on a Green Screen ~ WPS Broadcast Studio ✳️		
Gym	Math	Math Detectives: Hands-on Fun! ~ Wellesley College	K-12	Wellesley College Math Professor Ann Trenk and some of her students will guide participants as they explore ideas in mathematics using hands-on models.
Cafeteria	Math	Math is Cool! ~ Russian School of Math	K-8	
2nd Floor Hallway (Room 231)	Living Things	Meet a Wild Ambassador and learn about Environmental Engineering and STEM ~ Mass Audubon Society	K-12	Environmental Education and STEM How can Science, Technology, Engineering, and Math be tied into outdoor environmental programs? Talk with our Teacher Naturalist from Mass Audubon's Drumlin Farm and meet a wild ambassador.
1st Floor Hallway	Coding	Minecraft in Education ~ Saint John School	3-5	Fourth grade students created a solution that would reduce the impact of a volcanic eruption and built a prototype using the Minecraft App.



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2nd Floor Hallway (Room 246)	Science of Being Human	Molecular Modeling and Visualization ~ WHS Biology Faculty 		Come explore DNA through models and molecular biology materials. Participants will be able to build models of DNA and see how students are able to visualize actual DNA using gel electrophoresis and PCR.
Cafeteria	Living Things	Moss Tales ~ Valentina's Moss	3-12	Come and play with hands-on experiments to learn how moss was resurrected after staying dormant for over 1600 years, how they might have caused a mass extinction, how to build a beautiful moss garden using Raspberry Pi and get tips on moss control!
Gym	Robot Zoo	NAO Robots! Meet Nimbus, Wellesley Free Library's newest NAO! ~ Wellesley Free Library	3-12	Meet Nimbus, Wellesley Free Library's newest NAO! Nimbus and Lava will be at EXPO, where you can learn what it takes to program the robots.
Cafeteria	Science of Being Human	Newton-Wellesley Robotics Surgery Program ~ Newton-Wellesley Hospital 	6-12	A DaVinci robot will be present. Visitors will be able to play on the simulator as well as participate in a dry lab.
Cafeteria	Chemistry and Physics	On a Mission: Inside the Lab ~ Thermo Fisher Scientific 	K-8	You are part of secret organization on a mission to make the world healthier, cleaner, and safer. Only you have the skills and laboratory tools to save the day. Join your friends in the laboratory and get to work.
Cafeteria	Chemistry and Physics	Optics in Everyday Life ~ NES/OSA	3-12	The New England Optical Society explores the science and engineering of optics through hands-on demonstrations. See the world through a giant kaleidoscope, how color is used for communicating pictures on cell phones and other demonstrations.
Cafeteria	A in STEAM	Pendulum and 3D Printed Art ~ Hunnewell Elementary School PTO	K-12	Make intricate, mesmerizing patterns by setting a compound pendulum in motion. A pen attached to the pendulum records your unique Lissajous figures on a poster that you can take home. 3D printers will be on hand to make related physical models.
Gym	Chemistry and Physics	Physics 4 Phun ~ Wellesley College	3-12	Discover the joys of physics with our department demos: dizzying turntables, cloud chamber particle detectors, tricky optical illusions, and more!
Cafeteria	A in STEAM	Pianos for the Smart Home ~ Falcetti Pianos 	K-12	With the introduction of the Yamaha Disklavier Enspire Player pianos that plays themselves, and the new Hybrid Avant series instruments, Yamaha pianos exemplify the intersection of artistry, craftsmanship and technology.



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1st Floor Hallway (Room 165)	A in STEAM	Picturing Science ~ American Museum of Natural History		
Cafeteria	Living Things	Pollinators in the Garden ~ Land's Sake Farm	K-8	Bees, butterflies, birds, and bats: learn about the fascinating creatures who help flowers, fruits, and vegetables grow! Find out why they are so important and ways to attract them to your own garden.
Cafeteria	Engineering	Project Based Learning with Evolutions ~ WHS Evolutions 		1) Evo Community Partnerships: Plastic Bottle Ban - Working with the Sustainability committee, a team of Evolutions students is trying to raise awareness about plastic water bottle waste and pursue local government remedies 2) Evo Community Partnerships: Mobile Storytelling - Working with the Wellesley Historical Society and the Wellesley Free Library, a team of Evolutions students is attempting to build a mobile storytelling booth pulled by a bicycle where residents can record a 5 minute story to be archived and shared. 3) Evolutions Project: Infectious Disease Outbreak - An Evolutions student team presents their response to a fictional, global disease outbreak. They'll walk through their design process and experience in project-based learning.
2nd Floor Hallway	Science of Being Human	Research Participant Registry /SPARK at Boston Children's Hospital ~ Boston Children's Hospital – RPR / SPARK Team 	K-12	The Research Participant Registry (RPR) supports a growing research program, with dozens of studies looking at childhood development from infancy through adulthood. SPARK is one such study, researching the genetic aspect to Autism Spectrum Disorder.
Gym	Robot Zoo	Robotic Chair, StandX ~ Robilis INC	K-12	Prolonged sitting is associated with diseases including back pain and diabetes. We will demo the functions and explain benefits of our Robotic chair, StandX, which eliminates sitting-related diseases.
Gym	Robot Zoo	Robots Zoo-Dancing with the Stars ~ WPS Technology 	K-8	Robot stations of all of the WPS robots for students to experience. Stations would include robots with various input/programming methods. Some code through the top, others code through iPad Blockly code, and others through building blocks.
Cafeteria	Engineering	Rocket Design Challenge ~ Schofield Elementary School PTO	K-12	Build, then launch your own paper and straw rocket -see how far it can go! Change the design to see how this impacts your rocket's ability to travel.



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1st Floor Hallway	Chemistry and Physics	Science in Everyday ~ Olympus Scientific Solutions ★	K-12	Olympus' Science in the Everyday exhibit will highlight Microscopy and XRF technologies, demonstrating how they impact your everyday life. Join us to make your own 'cheeky cell-fie', find out what's in your jewelry, inspect water from the Charles River, and more!
Gym	Science of Sports	Science of Figure Skating ~ Upham Elementary PTO	K-12	Science of figure skating exhibit. Utilizing a turntable to explore velocity, center of gravity etc.
Gym	Chemistry and Physics	Science Olympiad ~ WHS Science Team 🌟	6-12	For 20 years Wellesley High School has participated in the Mass State Science Olympiad at Framingham State University. See what types of events we do at the Olympiad.
2nd Floor Hallway	Coding	See Student Created Apps to Solve Local Problems ~ Wellesley Creates	6-12	See apps created by student teams to solve local problems at the Wellesley Creates on March 16, 2019.
Cafeteria	Our Planet and Beyond	Segway Rides! R2D2 Robot! Huge Meteorites! Hold a Dinosaur Egg! Make an Electronics Gadget! Make your Voice into a Radio Wave! — New England Sci-Tech STEM Center and Maker Space! ~ New England Sci-Tech, Inc.	3-12	Segway Rides! R2D2 Robot! Huge Meteorites! Hold a Dinosaur Egg! Make an Electronics Gadget! Make your Voice into a Radio Wave! — New England Sci-Tech STEM Center and Maker Space!
1st Floor Hallway	Math	Skittles Math ~ Belmont Hill School		
Gym	Science of Sports	Softball Speed ~ Wellesley Softball	K-12	See how hard you can throw a softball, learn about how lift is generated on a spinning pitch and understand the math behind a radar gun.
1st Floor Hallway	Engineering	Speak with MassBay STEM Students about their Project Based Work ~ MassBay Community College STEM Division	9-12	You'll see how magnets and copper coils are used to generate electricity and learn the logic behind how to code a game.



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Gym	Coding	Sphero Mini Golf ~ Museum of Science, Boston	3-12	
Cafeteria	Chemistry and Physics	Spinning Around with STEM ~ STEM Beginnings, LLC	K-5	Children will go topsy-turvy as they learn about Spin Physics and try different activities like creating a Spin art using Fan circuits, testing out different tops, and exploring other things that spin! STEM is Fun!
1st Floor Hallway (Room 158)	Engineering	STEM Club in Action ~ WHS STEM Club 		Come meet and interact with some Wellesley High School Engineering students who will give demonstrations using our Laser Engraver and 3D Printers. (Room 158)
Gym	Robot Zoo	STEM Petting Zoo ~ Eduporium	K-5	Eduporium will bring an assortment of the latest innovative STEM educational technology being used across the US in classrooms and libraries. Solutions will include coding & electronics kits, robots, virtual reality, 3D printer, and other items.
2nd Floor Hallway	Our Planet and Beyond	STEM-Expo Sustainability Challenge 2019 ~ Sustainability Challenge	K-12	A booth to showcase student entries to the 2019 STEM-Expo Sustainability Challenge.
2nd Floor Hallway (Room 220)	A in STEAM	String Art ~ Boston Children's Museum	K-5	Learn to use hand tools like rulers, hammers and nails, then create images using string. You can make your own design or add to our large scale string art extravaganza!
2nd Floor Hallway	Living Things	Surgery Techniques ~ Hancock Animal Hospital	6-12	Same as exhibit did at the Wellesley STEM Expo 2 years ago. Kids can use actual surgical suture/surgical instruments to suture closed stuffed animals. Will demo surgical techniques and instrument handling. Will have surgery gowns/masks/hats available
Gym	Chemistry and Physics	The Physics of Flying an Airplane ~ East Coast Aero Club - Bedford, MA	K-12	Explore how classroom physics apply to the real world of flying an airplane: the Bernoulli Principle, acceleration, centrifugal force, center of mass, gyroscopic effect, and on and on and on.
Gym	Science of Sports	The Science of Adaptive Sports ~ Kelly Brush Foundation	3-12	The science behind adaptive sports equipment. Hands on demonstration of how engineering makes sports, and sports equipment, adaptable for people with disabilities.
Cafeteria	Living Things	The Science of Bees ~ Urban Beekeeping Laboratory and Bee Sanctuary, Inc.	K-12	The Urban Beekeeping Laboratory is a nonprofit looking for creative ways to improve the health of honey bees and wild bees. We'll be showing off an observation colony, as well as offering a taste of delicious raw honey.



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Cafeteria	Living Things	The Science of Plants ~ Massachusetts Horticultural Society	K-5	Mass Hort will show you how to set up an experiment using plants that you can take home and grow.
Gym	Science of Being Human	Train Your Brain With NikaVika SisterHood's Empowerment Coaching ~ NikaVika SisterHood	K-12	<ul style="list-style-type: none"> • Interactive activities to demonstrate how you can train your brain • Positive reinforcement and creative activities • Introduction to new children's book "ABC Worry Free" by Noel Foy • Possible book signing by author
Outside	Our Planet and Beyond	Transportation rEvolution ~ Sustainable Wellesley	6-12	The exhibit will have hot-selling Electric Vehicle (EV), electric assist bicycle, human power meter and EV owners so that participants can learn about mobility solutions including EV practicality, capabilities and limitations.
Gym	Coding	Unruly Splats ~ Unruly Studios	3-5	Stop by our table to play with Splats, programmable tiles you can press and stomp on. Play classic games, code your own, and just get plain Unruly!
2nd Floor Hallway (Room 246)	Chemistry and Physics	Visual Models for Anatomy and Physiology ~ WHS Anatomy and Physiology 		Come explore several models of various cells, cell components, and organs of the human body, many of which are interactive, will be on display. A couple highlights include an extremely realistic 3D printed dissected hand as well as an interactive model of the contractile unit of a muscle cell. Additionally, the use an advanced digital microscope that is able to project to the SmartBoard will be demonstrated.
Gym	Coding	VR, Robots and FruitPi for Fun and Learning ~ iCode of Wellesley	K-12	Engaging children in a fun and innovative activities helps them learn concepts of Electronics, coding, Virtual Reality and AI in a practical and a attainable way. Using AGILE teaching techniques we enable future innovators
2nd Floor Hallway	Robot Zoo	We love Drones! ~ Sat-Drones	9-12	The exhibit will allow students to practice their navigation skills and inspire them to know more...what is around them, how it all works.
1st Floor Hallway	Living Things	Wellesley iTree Project ~ Girl Scout Troop 73505	3-5	Girl Scout Troop 73505 is partnering with the Wellesley Natural Resources Commission to raise awareness about the importance of trees in keeping our air clean. Visitors to the exhibit will help create "nutritional labels" for local trees.








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LOCATION	CATEGORY	EXHIBIT ~ EXHIBITOR	GRADES	EXHIBIT DESCRIPTION
Gym	Robot Zoo	Wellesley Middle School Robotics: Student Projects ~ WMS Robotics 		WMS Robotics: Student Work
Cafeteria	Living Things	What's the Buzz: Learn about Native Bees in Massachusetts ~ Museum of American Bird Art at Mass Audubon	3-8	Learn about native bees in Massachusetts from the Wild at Art Summer Camp. Come see our collection of native bees and look closely at them under a digital microscope. Create a small art project inspired by these amazing pollinators.
Cafeteria	Math	Which One Does Not Belong and Open Middle & Logic Puzzles ~ WPS Elementary Math 	2nd grade and up	Learn about some of the fun games and resources available to support the Investigations curriculum including Fraction Focus, Which One Doesn't Belong, Notice Wonder, Open-Middle Problems
1st Floor Hallway	Chemistry and Physics	WMS Science Olympiad ~ WMS Science Olympiad 	K-12	Information about the Middle School Science Olympiad Team.
2nd Floor Hallway (Room 216)	Chemistry and Physics	WPS 6th Grade Science - WMS Astronomy Exhibit "Livin on a Planet" ~ WMS 6th Grade Science 	K-8	What happens in the Wellesley Middle School 6th-grade Science Astronomy Unit?? Come learn about the moon and what it would be like to live on another planet from WMS sixth-grade students!
Cafeteria	Chemistry and Physics	WPS 8th Grade Science - Physical & Chemical Changes in Matter ~ WMS 8th Grade Science 	K-12	What are physical and chemical changes? What are some examples of each? Come and listen to some 8th grade WMS students tell you all about physical and chemical changes and engage in some fun hands-on science!
Cafeteria	Living Things	X-marks the Spot! Identifying the X-chromosome in Fruit Flies ~ Brown University	K-12	How can we use fruit flies to unlock the mysteries of how our genome is regulated to prevent disease?
1st Floor Hallway	Math	You Can Do the Rubik's Cube! ~ WMS Rubik's Cube Club 	3-8	Students from the middle school Rubik's Cube Team will show kids how to solve a Rubik's cube! Participants can also time themselves and create mosaics using the cubes.





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NOTE: Space limited; Sign up for workshops at table outside each room.

TIME	LOCATION	CATEGORY	WORKSHOP ~ EXHIBITOR	GRADES	WORKSHOP DESCRIPTION
1:15 PM [30 mins]	1st Floor Hallway (Room 164)	Science of Sports	Avalanche Safety for All Ages ~ BRASS	3-12	Avalanches are like monsters lying asleep under what looks like pristine snow which entices all winter sports enthusiasts. They can become deadly giants at any moment. Come learn how to know if you are in danger when travelling on snow.
10:15 AM [30 mins]	2nd Floor Hallway (Room 243)	Our Planet and Beyond	Biological Battery ~ Bioechem	6-8, 9-12	We will exhibit the new product, the biological battery, developed by our company. Inside biological battery, there is no harsh chemicals function, instead there are microorganisms and biological compounds, are functioning to lid up LED lights.
10:15 AM or 12:15 PM [45 mins]	2nd Floor Hallway (Room 239)	Coding	Build Your Own Computer ~ WPS Technology 	3-8	During this workshop you will learn to build your own computer using Kano Computer Kits. Participants will assemble the computer, put it on Wifi and boot it up for use. At the end of the session students will disassemble the computer for next session
11:15 AM or 1:15 PM [30 mins]	2nd Floor Hallway (Room 239)	Coding	Build Your Own Network ~ WPS Technology 	3-8	During this workshop participants will build a network by crimping and testing cables, adding switches and access points to create both wired and wireless network. After creating the network participants will connect VoIP phones,. ipads, and other devices to the new network.
10:15 AM, 11:15 AM, 12:15 PM, 1:15 PM [45 mins]	2nd Floor Hallway (Room 250)	Science of Being Human	Capture Your DNA in a Necklace ~ Boston University	3-12	Come join us to learn about the molecular basis of life and the molecule that encodes what makes you YOU: DNA! We will isolate DNA from participants' cheek cells and capture it in a helical tube to make a necklace that you can take home.
1:15 PM [45 mins]	2nd Floor Hallway (Room 238)	Robot Zoo	Come Play with KIBO - The fun and playful STEAM robot kit for kids 4-7 ~ KinderLab Robotics, Inc.	K-2	Meet KIBO! This screen-free coding robot lets young kids be creative while diving into coding and sequencing! Learn more about KIBO, code a sequence using the programmable wooden building blocks, and bring your robot to life! Imagine what you can create with KIBO! Come Play!
10:15 AM, 12:15 PM, 1:15 PM [30 mins]	2nd Floor Hallway (Room 242)	Engineering	Engineering is Everywhere ~ Project Academy Inc.	3-5	Through the evolution of the pencil sharpener, explore and learn how engineering design impacts ordinary and extraordinary item sin our everyday life.



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10:15 AM [30 mins]	1st Floor Hallway (Room 164)	Our Planet and Beyond	Garbage is My Bag ~ Garbage is My Bag	K-2, 3-5	Garbage Is My Bag is an awarding performance program for school audiences. Using the power of live performance the show engages students with facts about solid waste. The goal of the program is to strengthen new attitudes towards our common resources
11:15 AM [60 mins]	Auditorium	A in STEAM	Lights, Camera, Action! ~ WPS Performing Arts 	6-12	Come learn how to use state of the art lighting to make a show look professional
10:15 AM, 11:15 AM, 12:15 PM, 1:15 PM [45 mins]	2nd Floor Hallway (Room 240)	Our Planet and Beyond	Planetarium Shows ~ New England Sci-Tech 	3-12	Each show time begins with a quick look at what's up in the sky this month followed by an exciting multimedia show on a topic in astronomy or space science. Free. Best for children above age 6. Seating is on cushions on the floor under dome.
10:15 AM or 11:15 AM [45 mins]	2nd Floor Hallway (Room 247)	Science of Being Human	Playing with Food, but Looking at Science: An Investigation into Enzymes ~ WHS Biology Faculty 	6-12	Come explore a common molecular gastronomy technique (creating sodium alginate spheres) and apply them to the concept of enzymes. Participants will investigate factors that may affect enzyme action.
10:15 AM, 11:15 AM, 12:15 PM, 1:15 PM [30 mins]	2nd Floor Hallway (Room 241)	Engineering	Think Like An Engineer! ~ Boston University College of Engineering Technology Scholars	6-12	Explore engineering challenges with undergraduate engineering students from Boston University. While exploring, talk with them about why they are studying engineering and what made them decide to study engineering at Boston University.
11:15 AM [30 mins]	1st Floor Hallway (Room 164)	Our Planet and Beyond	Weather, Climate, Let's Define It! ~ Billy B, Young Audiences of Massachusetts	K-5	Billy B, The Natural Science Song and Dance Man, leads a song and dance exploration of the differences between weather and climate, the structure and benefits of the atmosphere, and how it all supports the amazing diversity of plant and animal life on our beautiful planet.