



HTHTME Program Alignment with Maine Science and Engineering Standards for Grades K-5

| Science Standards | HTHTNE Programs |
|---|--|
| Earth and Space Science | |
| ESS1 – Earth’s Place in the Universe | Cosmic Capers© (5-ESS1-1, 5-ESS1-2) Reason for the Season© (1-ESS1-1, 1-ESS1-2) |
| ESS2 – Earth’s Systems | Weather or Not© (K-ESS2-1, K-ESS3-2) Meteorology Madness© (3-ESS2-1) ‘Fun’omena© (4-ESS2-2, 4-ESS3-1, 4-ESS3-2) Dig It© (2-PS1-1, 4-ESS1-1, 5-PS1-3) |
| ESS3 – Earth and Human Activity | Fun’omena© (4-ESS3-1, 4-ESS3-2) |
| Life Science | |
| LS1 – From Molecules to Organisms | Smarty Plants© (K-LS1-1, 1-LS1-1) Let’s Make Sense© (1-LS1-1) |
| LS2 – Ecosystems | Get Buggy© (2-LS2-2) Survive and Thrive© (2-LS2-2, 3-LS2-1, 3-LS3-2, 3-LS4-2) Sea Ya Later© (3-LS2-3) Extreme Scene© (2-LS2-2, 3-LS2-1, 3-LS4-2, 3-LS4-3) |
| LS3 – Heredity | The Print Shop© (3-LS3-1) Forensic Fun© (3-LS3-1) |
| LS4 – Biological Evolution | Down Deep© (3-LS4-3) Jurassic Jr.© (3-LS4-1) The Chain Gang© (2-LS4-1, 3-LS4-4, 5-LS2-1, 5-PS3-1) |
| Physical Sciences | |
| PS1 – Matter and Its Interactions | What’s the Matter© (2-PS1-3, 2-PS1-4) Matter Matters© (5-PS1-1, 5-PS1-2, 5-PS1-3, 5-PS1-4) Dig It© (2-PS1-1, 4-ESS1-1, ESS1.C, 5-PS1-3) |
| PS2 – Motion and Stability: Forces and Interactions | Balance, Motion and Newton© (K-PS2-1, K-PS2-2) Friction Gives Me Traction!© (3-PS2-1) Magnet Makers© (3-PS2-3, 3-PS2-4) |
| PS3 – Energy | Edison’s Workshop© (4-ESS3-1, 4-PS3-2, 4-PS3-4) The Power of Light© (K-PS3-1, 4-PS3-2, 4-PS3-4, 4-PS4-2, 4-PS4-3) Sounds Like Fun/Vibes© (4-PS3-2, 4-PS3-4, 4-PS4-1, 4-PS4-3) The Chain Gang© (5-PS3-1) |
| PS4 – Waves and their Applications | Sounds Like Fun/Vibes© (4-PS3-2, 4-PS3-4, 4-PS4-1, 4-PS4-3) The Power of Light© (4-PS3-2, 4-PS3-4, 4-PS4-2, 4-PS4-3) |
| Technology/Engineering | |
| ETS1 – Engineering Design | Beams, Bridges and Columns© (ETS1-1, ETS1-2, ETS1-3) Finally Fun Machines© (ETS1-3) |

Program Listing for Grades K-5

Programming provided in

Grades K-8 • After-School Programs • Pre-Schools • Vacation Camps • Science Nights
<http://www.ScienceMadeFunME.net> • 207.400.0937 • <http://www.facebook.com/HTHTME>



High Touch High Tech of Maine® Science Experiences That Come To You™

(Available for In-School and After-School Sessions)

Balance, Motion and Newton© (3-PS2-1)

Understand why things balance, how things move and all the forces that impact motion! We have FUN learning how to trick gravity, making objects balance or fall, and launching a rocket if the weather permits!

“Excellent, hands-on activities. Scientist engaging and friendly.”

Grade 3 Teacher, Center School, Stow, MA

Beams, Bridges and Columns© (ETS1-3, ETS1-5)

Find out what makes buildings and bridges stand up and not fall down. Learn about compression and tension. Students become engineers and design a bridge that can carry a load!

“This was excellent! Very appropriate for our engineering unit. (Beams, Bridges, and Columns) covered everything! 😊”

Grade 4 Teacher, Flaherty Elementary School, Braintree, MA

BrainBuzz©

Discover how cool the brain really is! Find out why the brain is the boss, as we make neurons, axons, and much more!

Chemfun©

Find out how much fun chemistry can be! Explore chromatography as you watch colors separate before your eyes. Make your own silly putty and gummy candies as we learn REAL chemistry.

Cosmic Capers© (5-ESS1-1, 5-ESS1-2)

Rotate, revolve and tilt as we understand the movement of the earth and moon around the sun. Play with the phases of the moon and see the impact the moon has on the earth. Learn about the movement of the stars and the constellations.

Dig It© (2-PS1-1, 4-ESS1-1, ESS1.C, 5-PS1-3)

Step into the world of the Rock Cycle. We uncover the mysteries of rocks, fossils and crystals. Pan for real gems and keep what you find! Perform a battery of tests as we classify them!

“The kids loved it! They were engaged the whole time and showed such excitement.”

Grade 4 Teacher, Esten Elementary School, Rockland, MA

Down Deep© (2-LS2-3)

Discover our oceans and what creatures live down deep. Examine a real fish! Build your own coral reef and explore echolocation, whale song, and bioluminescence and find out how deep sea marine creatures survive and thrive.

Edison’s Workshop© (4-ESS3-1, 4-PS3-2, 4-PS3-4)

Explore the amazing world of electricity. Learn what’s “static” and “current” as you make hair rise and water bend. Transfer energy, generate electricity, touch lightning and get all the electrifying facts! Make an electromagnet as we uncover all the “attractive” and “repulsive” facts.

Extreme Scene© (2-LS2-3)

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Journey through the earth's extreme environments: deserts, rainforests, the depths of the oceans, the arctic zones. Learn how birds, animals, marine creatures and plants adapt to these harsh climates. Explore the amazing survival of the cactus. Roll up your sleeves as we discover some slimy things!

Eye Eye Captain©

Discover our incredible sense of sight. Have fun as we build our very own eye ball to keep! Explore the properties of vision and perception. Learn about near sighted, far sighted, and astigmatism. See it all for yourself!

Finally Fun Machines© (Simple Machines, ETS1-3)

Finally, a hands-on and FUN program on simple machines. Make your very own screw out of a carrot. Build a crane, and engage in pulley power and incline plane antics. Balance using levers and by moving fulcrums. Enter the world of screws and determine the most appropriate tools to use.

Forensic Fun© (3-LS3-1)

Solve the crime! Become a CSI technician as we look for clues, discover a mystery powder, learn all about DNA and fingerprint patterns. Dust for fingerprints and much more.

Friction Gives Me Traction© (3-PS2-1)

Experience friction and create traction for balls, tires, slides, pennies, and more! Change the shape and find ways to slip and slide away.

'Fun'omena© (4-ESS2-2, 4-ESS3-1, 4-ESS3-2)

Earthquakes! Hurricanes! Tornadoes! Oil spills! And more! Learn how the earth's layers and weather systems move to cause these phenomena and how we can protect ourselves. Have FUN as we make them happen in your classroom!

"Love! Love! Love! ('Fun'omena was a) Great lead-in to our next science unit."
Grade 2 Teacher, Orchard Farms School, Cranston, RI

Get Buggy© (2-LS2-3)

Discover the incredible world of bugs. Find out all the cool and creepy things bugs do! Explore how they help our world. See through the eyes of bugs and play the pheromone game.

Get Off My Back©

Discover why it's cool to be a vertebrate! Check out real bones and X-rays. Get hip as we make our very own ball and socket joints. Stay connected as we work with skeletons to see which bones are connected. Learn about our funny bone and bone marrow!

Jurassic Jr© (3-LS4-1)

Kids become paleontologists as we uncover the mysteries of the dinosaurs, plants, and marine life that existed millions of years ago. We examine REAL fossils, dig for them and make our own!

Lego Atoms and Molecules (*Program developed by MIT's Mind Hand Alliance*)

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Experience a real chemical reaction and work with Lego bricks to understand the differences between compounds & mixtures and what happens to atoms & molecules in a chemical reaction.

Let's Make Sense© (1-LS1-1)

Have FUN as we make sense out of our senses. Explore the five senses, one sense at a time.

Discover how much animals and we rely on our senses.

Magnet Makers© (3-PS2-3, 3-PS2-4)

Discover the properties of magnetism. Have FUN as we uncover all the “attractive” and “repulsive” facts. Make an electromagnet. Uncover the many uses for magnets and magnetic forces!

Matter Matters© (5-PS1-1, 5-PS1-2, 5-PS1-3, 5-PS1-4)

Explore the properties of matter, evaporation rates, conductivity and more! Observe how matter is conserved in a phase change and chemical reaction, then make bouncing balls to take home!

Meteorology Madness© (3-ESS2-1)

Discover the force of wind and air pressure. Touch a cloud and experience the power of lightning! Become a real meteorologist. Look at clouds, the jet stream, and weather maps to predict the weather!

Nutty Nutrients©

Get the essentials as we learn about the food groups. Have FUN as we test for protein, starch and fat. Balance your meals with Choose My Plate. Experiment with vitamins; learn to make healthy choices, portion control, getting your heartbeat up and much more! (Please note: nuts are not used in this program.)

Reason for the Season© (1-ESS1-1, 1-ESS1-2)

Make the earth move, rotate and tilt as we uncover the reason for the seasons and the corresponding changes in the length of the day, the weather and the trees. Experience our orrery, and extract color from a leaf and more as the seasons change!

“The scientist was great with the kids!”

Grade 1 Teacher, Joseph R. Dawe Elementary School, Stoughton, MA

Respiration Station©

Learn all about breathing. Discover how we can tell what we breathe out is not what we breathed in! Have FUN as we make our very own Breathing Machine. Make a wind tunnel and much more!

Sea Ya' Later© (2-LS2-3)

Explore our amazing underwater world. Learn about plankton, and why almost all ocean life depends on them. Explore Coral Reefs and examine a real fish – gills, fins, scales and all! Make your very own reef to keep!

Smarty Plants© (K-LS1-1, K-LS1-2, 1-LS1-1)

Discover the amazing world of plants. We have a hands-on look at roots, shoots, and transportation inside a plant. Learn about photosynthesis and germination. Get all the “seedy” facts!

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Sounds Like Fun/Vibes© (4-PS3-2, 4-PS3-4, 4-PS4-1, 4-PS4-3)

Catch the vibes! Make sound travel through different media. Build an ear drum. Make salt dance and learn about wave motion. Make our own musical instrument and send Morse code!

"I am so impressed. The scientist had the kids attention from beginning to end (of Sounds Like Fun/Vibes©). I want to do another one!"

Grade 1 Teacher, Jenkins School, Scituate, MA

Survive and Thrive© (2-LS2-3, 3-LS3-2, 3-LS4-2)

From stinky skunks to flying frogs, we explore the amazing ways animals, mammals, and plants adapt and survive in their habitats. Are you predator or are you prey?

"(Survive and Thrive) tied in perfectly with the new science standards and our unit on adaptations!"

Grade 3 Teacher, Davis Thayer School, Franklin, MA

The Chain Gang© (5-PS3-1)

Join the chain gang, the food chain of producers, consumers and decomposers. Have fun as we learn about predator-prey relationships and food webs, and dissect real owl pellets. Find out how animals protect themselves in the wild!

The Power of Light© (4-PS3-2, 4-PS3-4, 4-PS4-2, 4-PS4-3)

Find out just how amazing light is. Reflect it, refract it, pass it through different media, and send messages with it! Uncover the mysteries behind ROY G. BIV, UV light, and the electromagnetic spectrum. Become "energized", transfer energy and light up bulbs!

The Print Shop© (3-LS3-1)

We all leave prints behind! Learn about your fingertip patterns, inherited traits and genetically unique DNA. Can the environment or changes in habitat impact your survival or your DNA?

Up, Up & Away©

Learn about aerodynamics and what makes things fly. Learn about lift and drag and the forces that impact flight as we launch a rocket, make a helicopter and discover why what goes up must come down.

Weather or Not© (K-ESS2-1, K-ESS3-2)

Learn about weather as we take an up close and hands-on look at the wind, clouds, and a real tornado. Discover all the amazing properties of air and air pressure. Touch lightning and a cloud!

"The Weather or Not program exceeded my expectations. The kids were completely engaged for the entire hour and a half. The program was PERFECT! The kids loved it and learned more in an hour and a half than I could have taught in a month. Your programs are extraordinary!! Thank you, thank you, thank you!"

John F. Kennedy School, Franklin, MA

What's the Matter© (2-PS1-3, 2-PS1-4)

Have FUN as we explore reversible and irreversible changes, phase changes, chemical reactions, and the properties of matter. Weigh air and watch solids turn into gases!

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High Touch High Tech of Maine® Science Experiences That Come To You™

VACATION CAMPS AND WORKSHOPS

"Our campers always look forward to Mondays because they know that High Touch High Tech is coming. When I asked a camper what her favorite part of the week was, she responded with High Touch High Tech."

Camper - "High Touch High Tech makes learning fun!!!"

Boris Zvonetskiy, Camp Director, Camp Brunen Brook, Newton MA Parks and Recreation

We provide our **full selection of Elementary School Programs** and more in **Short Workshop, Half Day, or Full Day formats** to suit your camp programming needs:

- Our scientists come to your camp location for 45-60 minute sessions up to 20 kids/group, and can provide multiple sessions in a single day.
- We can utilize our Program Listing to create customized science theme programs for your vacation camp! Here are a past examples:
 - **Engineering Program Themes** (*ask, imagine, design, plan, build, test, improve*): Beams and Bridges, Columns and the Built Environment, Engineering and the Human Body, Aerodynamics, Chemical Engineering, Finally Fun Machines, Engineering and Blue Printing, Levers and Catapults, Make it Float, Engineering for Everyone, and many more!
 - **Space Program Themes**: Cosmic Capers© (space, the solar system), Up, Up and Away© (rockets and more), Space Explorers (venture into space and meet the planets and constellations), and Life on Mars (what living on Mars would be like).
 - **Practical Science Themes**: Forensic Fun© (the techniques used by detectives to solve a crime), Flight Command© (how things fly), Matter Matters© (properties of matter), Vibes© (sound and how we hear), and It's Energetic! (explore many different forms of energy including sound, light and electricity).
- **Reservations and Pricing**: Please call us at 207.400.0937 or email us at info@ScienceMadeFunME.net to discuss your programming needs and for pricing on programs.

"Thank you for the fantastic forensics program. As a result of your activity, the kids in our library haven't just watched CSI, they've lived it! If there were any "bad guys" within the vicinity of our building, they'd have been apprehended immediately! But you really enabled the kids to grasp the concepts of forensics and put them to fun and practical use. Thanks again for a decidedly different and enjoyable Vacation Week program."

Children's Librarian, Maynard MA Public Library

"Our children are having a great science experience this summer. The scientist makes science fun and every week provides our kids with a different hands-on activity. The kids love it! Thanks for the opportunity of making learning science fun this summer." Laurie D'Elia, Program Supervisor, Nazzaro Center, Boston MA

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