(ATTACHMENT 7) ACTION ON THE AWARD OF PROFESSIONAL SERVICES CONTRACTS

Contract Requisition Number: CR047014
Contract Number: B0001394
Vendor Number: V0822027

MILWAUKEE BOARD OF SCHOOL DIRECTORS
PROFESSIONAL SERVICES CONTRACT

This Contract is being entered into this 1st day of October 2019, by and between **Fun Science, Inc. d/b/a Mad Science of Milwaukee, Inc.** ("Contractor") and Milwaukee Board of School Directors ("MPS"). This Contract is the result of an open competitive procurement, specifically Request for Proposal ("RFP") 1018.

1. SCOPE OF SERVICES

Contractor shall specifically perform the following tasks:

This is a Blanket Contract ("Contract") under which the Contractor shall provide science workshops and educational programs for grades K-8. Contractor's workshops and educational programs shall complement MPS's science curriculum and conform to Next Generation Science Standards (NGSS). Each workshop shall last one class period, between 50-60 minutes, and be led by Qualified Instructors as defined by RFP 1018. MPS Instructional Guides, which break down the curriculum by unit for each grade level K-8 and by course for grades 9-12, are in RFP 1018 for reference. All curricula and materials proposed by vendors working with MPS shall require vetting and approval by the MPS Department of Curriculum and Instruction.

While the majority of workshops will be classroom workshops during the traditional school day, there may also be an opportunity to provide workshops during afterschool programs or other MPS events. Such programs and events may include MPS parents and guardians and may be longer than 50-60 minutes. The same academic and instructional parameters that apply to traditional, school-day workshops will apply to afterschool and MPS event workshops.

Additionally, during the term of the resulting blanket contract, the MPS Department of Recreation and Community Services may request vendor participation in the fall, winter and/or summer programming offered to Milwaukee area residents and non-residents. These services will be processed under the blanket contract during the term and pricing shall be negotiated between the vendor(s) and designated MPS Recreation staff prior to entering into a blanket contract order for services.

The cost of any materials provided by the Contractor, in order to better align program with NGSS classroom curriculum, is included in the cost. Pricing shall be held firm for the length of this Contract.

A complete description of available programs and the correlating grade levels and NGSS standards is hereby incorporated by reference as Exhibit A.

Services will be in accordance with RFP 1018 and Contractor's Response to RFP 1018, dated July 27, 2019.

Contractor shall provide, at its own expense, all personnel required to perform the services under this Contract.

2. TERM

This Contract shall be in effect from October 1, 2019 through August 31, 2022. Continued use under the Contract will depend upon Contractor's performance and adherence to programming within NGSS standards.

MPS reserves the right to request an onsite review of the Contractor's programming at any point during the term of the contract for verification that it is within acceptable standards and reserves the right to terminate the blanket contract at any time during the term of the contract if programming does not meet MPS standards.

No work shall commence before a Contractor receives a fully executed Contract and has been given approval to proceed. Any work performed by the Contractor prior to obtaining a fully-executed Contract with approval to proceed shall not be compensated pursuant to this Contract. Any continuation of the Contract beyond this term must be set forth in writing and signed by the original signatories to the Contract.

3. COMPENSATION

Total compensation under this Contract shall not exceed $200,000.00.

In-class and after school workshops will be 50-60 minutes in length, and shall be provided for an estimate of 25-35 participants at the rate of $249.00 per workshop. MPS Special Event Science Workshop will vary in length, and shall be offered to an unlimited number of participants at the rate of $419.00 per hour. The rates for all workshops and events shall be all-inclusive of any pre, during or post program materials costs for all participants.

The schools utilizing the services will make individual encumbrances against the Blanket Contract.

MPS reserves the right to determine in its sole discretion whether services have been adequately and fully delivered; to withhold payment until services are fully and adequately delivered; or to disallow a pro rata share of payments for services not fully and adequately delivered.

Milwaukee Public Schools does not pay in advance for services. No payment shall be made until a properly submitted invoice is approved. A properly submitted invoice must include a detailed description of the dates and times worked, and the tasks performed. As a matter of practice, MPS attempts to pay all invoices in 30 days. It is mutually agreed that State Prompt pay law does not apply to this Contract.

Unless otherwise specified, MPS shall not pay invoices submitted more than 60 days after actual work. In the case of grant funding, no payments shall be made after grant close out. Final invoices must be marked as such.

4. NON APPROPRIATION OF FUNDS

This Contract is contingent upon the appropriation of sufficient funds by appropriate MPS officials. If funds are not appropriated, Contractor agrees to take back any commodities furnished under the Contract, terminate any services supplied to MPS under the Contract, and relieve MPS of any further obligations under the Contract.

5. NON-DISCRIMINATION

In the performance of work under this Contract, Contractor shall not discriminate in any way against any employee or applicant for employment on the basis of a person's sex, race, age, religion, national origin, ancestry, creed, pregnancy, martial or parental status, sexual orientation, disability, or socio-economic status. This prohibition includes but is not limited to employment; promotions, demotions and transfers; recruitment; advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeships. Contractor is required to include a similar provision in all subcontracts to this Contract.

If MPS determines Contractor has violated this non-discrimination policy, MPS may terminate this Contract without liability for undelivered services or materials. MPS may also deem the Contractor ineligible to participate in future contracts with MPS.

6. INDEMNITY

Notwithstanding any references to the contrary, Contractor assumes full liability for all of its acts or omissions in the performance of this Contract, as well as the acts or omissions of its subcontractors. Contractor shall indemnify and hold harmless MPS, its agents, officers and employees against all liabilities, losses, judgments, decrees, costs, and expenses that may be claimed against MPS as a result of granting of this Contract to said Contractor, or that may result from the carelessness or neglect of said Contractor, its agents, or employees. If judgment is recovered against MPS in suits of law or equity for any reason, including by reason of the carelessness, negligence, or acts or omissions of the Contractor, against such persons, firms or corporations carrying out the provisions of the Contract for the Contractor, the Contractor assumes full liability for such judgment, not only as to any monetary award, but also as to the costs, attorneys' fees or other expenses resulting therefrom.

In accordance with applicable laws, MPS shall be responsible for defending and paying judgments on behalf of its officers, employees and agents while acting within the scope of their employment or agency for any claims that may arise out of MPS's negligence for acts, policies, or directives that affect the activities covered by this Contract.

7. BACKGROUND CHECKS

Contractor will conduct, at Contractor's expense, a criminal information records background check, (hereinafter referred to as "background check"), through the Wisconsin Department of Justice and other appropriate states' agencies, on all current and potential administrators, board members, officers, and employees who have, or who are anticipated to have, "direct, unsupervised contact" with MPS students in the performance of this Contract.

An out of state background check should be completed in the state(s) in which the individual resided for at least six months within the last two years and was eighteen years or older at the time.

Contractor will submit to MPS's Department of Employment Relations (DER), (via mail to Milwaukee Public Schools Background Checks, Attn: Department of Employment Relations, Room 116, 5225 West Vliet Street, Milwaukee, WI 53208, or via email at 564@milwaukee.k12.wi.us), all completed background checks. Such records will be reviewed and MPS will notify Contractor of any individual(s) who, based on MPS standards, are unfit and should not have contact with MPS students. All

determinations made by MPS with regards to whether an individual is fit to provide services pursuant to this Contract are made in MPS's sole discretion.

The following will each be a material failure to comply with the terms of this Contract and cause for immediate termination of this Contract by MPS: failure to perform background checks as outlined in this Section 7; failure to submit background checks to MPS as outlined in this Section 7; allowing services to be provided by an individual who has not be subjected to a background check; and allowing services to be performed by an individual who has been determined to be unfit by MPS as outlined in this Section 7.

8. INSURANCE AND PROOF OF FINANCIAL RESPONSIBILITY

Contractor understands and agrees that financial responsibility for claims or damages to any person, or to Contractor's employees and agents, shall rest with the Contractor. Contractor and its subcontractors shall effect and maintain any insurance coverage, including, but not limited to, Workers' Compensation, Employers' Liability, General Liability, Contractual Liability, Automobile Liability and Umbrella Liability to support such financial obligations. The indemnification obligation, however, shall not be reduced in any way by existence or non-existence, limitation, amount or type of damages, compensation, or benefits payable under Workers' Compensation laws or other insurance provisions.

The minimum limits of insurance required of the Contractor by MPS shall be:

Workers' Compensation	Statutory Limits
Employers' Liability	$100,000 per occurrence
General Liability	$1,000,000 per occurrence/$2,000,000 aggregate
Auto Liability	$1,000,000 per occurrence
Umbrella (excess) Liability	$1,000,000 per occurrence

The Milwaukee Board of School Directors shall be named as an additional insured under Contractor's and subcontractors' general liability insurance and umbrella liability insurance. Evidence of all required insurances of Contractor shall be submitted electronically to MPS via its third party vendor, EXIGIS Risk Management Services. Waivers and exceptions to the above limits will be in the sole discretion of MPS and shall be recorded in the EXIGIS system, which records are incorporated into this Contract by reference. The certificate of insurance or policies of insurance evidencing all coverages shall include a statement that MPS shall be afforded a thirty (30) day written notice of cancellation, non-renewal or material change by any of Contractor's insurers providing the coverages required by MPS for the duration of this Contract.

9. SHIPPING /TAXES

If goods are provided pursuant to this Contract, please note that MPS is exempt from Federal Excise and Wisconsin Sales Taxes. All vendor quotes, bids and invoices must include delivery FOB destination to the MPS location receiving the goods and freight must be prepaid. This means any freight, shipping, processing, handling or like charges must be part of a unit price. Any separate line items for freight, shipping, processing, handling or like charges listed on an invoice will be deleted and NOT PAID.

All textbook purchases shall be governed by the terms and conditions in the Milwaukee Board of School Directors' Textbook Contract, which provides that textbooks shipped to MPS or its schools must be done at no additional charge to MPS or its schools.

MPS reserves the right to reject any items that do not conform to the bid, quote or Purchase Order. All return freight charges associated with the rejected materials shall be borne by the vendor.

10. IRREPARABLE HARM

It is mutually agreed the breach of this Contract on Contractor's part shall result in irreparable and continuing damage to MPS for which money damages may not provide adequate relief. Therefore, the breach of this Contract on Contractor's part shall entitle MPS to both preliminary and permanent injunctive relief and money damages insofar as they can be determined under the circumstances.

11. TERMINATION BY CONTRACTOR

Contractor may, at its option, terminate this Contract upon the failure of MPS to pay any amount, which may become due hereunder for a period of sixty (60) days following submission of appropriate billing and supporting documentation. Upon said termination, Contractor shall be paid the compensation due for all services rendered through the date of termination including any retainage.

12. TERMINATION BY MPS - BREACH BY CONTRACTOR

If Contractor fails to fulfill its obligations under this Contract in a timely or proper manner, or violates any of its provisions, MPS shall thereupon have the right to terminate it by giving five (5) days written notice before the effective date of termination of the Contract, specifying the alleged violations, and effective date of termination. The Contract shall not be terminated if, upon receipt of the notice, Contractor promptly cures the alleged violation with five (5) days. In the event of termination, MPS will only be liable for services rendered through the date of termination and not for the uncompleted portion, or for any materials or services purchased or paid for by Contractor for use in completing the Contract.

13. TERMINATION BY MPS

MPS further reserves the right to terminate this Contract at any time for any reason by giving Contractor written notice by Registered or Certified Mail of such termination. MPS will attempt to give Contractor 20 days' notice, but reserves the right to give immediate notice. In the event of said termination, Contractor shall reduce its activities hereunder, as mutually agreed to, upon receipt of said notice. Upon said termination, Contractor shall be paid for all services rendered through the date of termination, including any retainage. This section also applies should the Milwaukee Board of School Directors fail to appropriate additional monies required for the completion of the Contract.

14. INDEPENDENT CONTRACTOR

Contractor agrees and stipulates that in performing this Contract, it is acting as an Independent Contractor, and that no relationship of employer and employee, partnership or joint venture is created by this Contract. Contractor has exclusive control over work hours, location, and other details of such services, and MPS's sole interest is to ensure that said service shall be performed and rendered in a competent, safe, efficient, timely and satisfactory manner in accordance with the terms of this Contract.

Contractor has the sole obligation to provide for and pay any contribution or taxes required by federal, state or local authorities imposed on or measured by income. Contractor specifically covenant not to file any complaint, charge, or claim with any local, state or federal agency or court in which Contractor claims to be or to have been an employee of MPS during the period of time covered by this Contract and that if any such agency or court assumes jurisdiction of any complaint, charge or claim against MPS on Contractor's behalf, Contractor will request such agency or court to dismiss such matter. MPS shall not be charged any obligation or responsibility whatsoever of extending any fringe benefits which may be extended to MPS employees, including any insurance, or pension plans.

Contractor further agrees that MPS is not to be charged with the obligation or responsibility of extending any fringe benefits such as hospital, medical and life insurance, or pension plans which may be extended to employees of MPS from time-to-time and further agree to indemnify and hold harmless MPS and all its employees, officers and agents from any liability for personal injuries, including death, or for damage to or loss of personal property, which might occur as a result of the performance of the services provided for under this Contract.

15. ASSIGNMENT LIMITATION

This Contract shall be binding upon and inure to the benefit of the parties and their successors and assigns; provided, however, that neither party shall assign its obligations hereunder without the prior written consent of the other.

16. PROHIBITED PRACTICES

A. Contractor during the period of this Contract shall not hire, retain or use for compensation any member, officer, or employee of MPS to perform services under this Contract, or any other person who, to the knowledge of Contractor, has a conflict of interest.

B. Contractor hereby attests it is familiar with MPS's Code of Ethics, providing in pertinent part, "[a]n employee of Milwaukee Public Schools may not accept any gift or gratuity in excess of $25.00 annually from any person, persons, group or any firm which does business with or is attempting to do business with MPS."

C. No person may enter into this Contract for services that the MPS employee would otherwise perform as an employee.

D. No current or former MPS employee may perform services on a professional services contract without the prior written consent of the MPS Chief Human Capital Officer or his/her designee.

E. If the Contract is for apparel for $5,000.00 or more, the Contractor agrees to provide only items manufactured by responsible manufacturers. Contractor is required to include a similar provision in all subcontracts to this Contract.

17. LIVING WAGE REQUIREMENT

Contractor shall comply with, and ensure its subcontractors performing work under this Contract comply with, Milwaukee Board of School Directors' Administrative Policy 3.09(17), which requires that employees be paid a "living wage."

18. NOTICES

Notices to either party provided for in this Contract shall be sufficient if sent by Certified or Registered mail, postage prepaid, addressed to the signatories on this Contract, or to their designees.

19. WAIVER

The waiver or failure of either Party to exercise in any respect any rights provided for in this Contract shall not be deemed a waiver of any further right under this Contract.

20. INTEGRATION / SEVERABILITY

This Contract and its exhibits and addenda, if any, RFP 1018 and Contractor's Response to RFP 1018 constitute the entire Contract among the Parties with respect to the subject matter hereof and supersede all prior proposals, negotiations, conversations, discussions and Contracts among the Parties concerning the subject matter hereof. No amendment or modification of any provision of this Contract shall be effective unless the same shall be in writing and signed by both Parties.

The District shall not be bound by any terms and conditions included in of Contractor's packaging, service catalog, brochure, technical data sheet or other document which attempts to impose any conditions at variance with or in addition to the terms and conditions contained herein.

If any term or provision of this Contract should be declared invalid by a court of competent jurisdiction or by operation of law, the remaining terms and provisions of this Contract shall be interpreted as if such invalid Contracts or covenants were not contained herein.

21. CHOICE OF LAW & FORUM

The state courts of Wisconsin shall be the sole forum for all disputes arising of this Contract. The validity, construction, enforcement and effect of this Contract shall be governed solely by the laws of the State of Wisconsin.

22. TIMING

Time is of the essence in this Contract.

23. CERTIFICATION REGARDING DEBARMENT OR SUSPENSION

Contractor certifies that neither Contractor or its principals; its subcontractors or their principals; the sub-recipients (if applicable) or their principals are suspended, debarred, proposed for debarment, voluntarily excluded from covered transactions, or otherwise disqualified by any federal department or agency from doing business with the Federal Government pursuant to Executive Orders 12549 and 12689. Contractor specifically covenants that neither the Contractor or its principals, its sub-contractors or their principals, or the sub-recipients (if applicable) or their principals are included on the Excluded Parties List System ("EPLS") maintained by the General Services Administration ("GSA").

24. FORCE MAJEURE

MPS will not be liable to pay Contractor for any work that the Contractor is unable to perform due to act of God, riot, war, civil unrest, flood, earthquake, outbreak of contagious disease or other cause beyond MPS's reasonable control (including any mechanical, electronic, or communications failure, but excluding failure caused by a party's financial condition or negligence).

25. STUDENT DATA

Contractor acknowledges that student data is protected by both federal and state law. *See* Wis. Stat. § 118.125; 20 U.S.C. § 1232g(b); 34 C.F.R. § 99.1 *et seq*. If MPS determines that Contractor has disclosed any student record information in violation of either federal or state law, without prejudice to any other rights or remedies the MPS may have, MPS shall be entitled to immediately terminate this and every other existing Contract without further liability. Moreover, MPS may bar Contractor from future MPS contracts for varying periods up to and including permanent debarment.

26. NON-DISCLOSURE

Absent prior written consent of the person listed in Section 3 or his/her designee, Contractor shall not: (1) disclose, publish, or disseminate any information, not a matter of public record, that is received by reason of this Contract, regardless of whether the Contractor is or is not under contract at the time of the disclosure; or (2) disclose, publish, or disseminate any information developed for MPS under this Contract. Contractor agrees to take all reasonable precautions to prevent any unauthorized use, disclosure, publication, or dissemination of the same information.

All information and any derivatives thereof, whether created by MPS or Contractor under this Contract remains the property of MPS and no license or other rights to such information is granted or implied hereby. For purposes of this Contract, "derivatives" shall mean: (i) for copyrightable or copyrighted material, any translation, abridgment, revision, or other form in which an existing work may be recast, transformed, or adapted; and (ii) for patentable or patented material, any improvement thereon.

Within ten business days of the earlier of receipt of MPS' written or oral request, or final payment, Contractor will return all documents, records, and copies thereof it obtained during the development of the work product covered by this Contract.

27. MPS LOGO/PUBLICITY

No Contractor shall use the MPS Logo in its literature or issue a press release about the subject of this Contract without prior written notice to and written approval of MPS's Executive Director of Communications & Outreach.

28. ORDER OF PRIORITY

In the event of a conflict among the documents constituting this Contract, the order of priority to resolve the conflict shall be: 1) this Contract; 2) RFP 1018 (including all exhibits and addenda); and 3) Contractor's Response to RFP 1018.

29. PUBLIC RECORDS

Both parties understand that the Board is bound by the Wisconsin Public Records Law, and as such, all of the terms of this Contract are subject to and conditioned on the provisions of Wis. Stat. § 19.21, *et seq*. Contractor acknowledges that it is obligated to assist the Board in retaining and producing records that are subject to Wisconsin Public Records Law, and that the failure to do so shall constitute a material breach of this Contract, and that the Contractor must defend and hold the Board harmless from liability under the law. Except as otherwise authorized, those records shall be maintained for a period of seven years after receipt of final payment under this Contract.

30. CONTRACT COMPLIANCE REQUIREMENT

The HUB requirement on this Contract is 0%. The student engagement requirement of this Contract is 300 hours. The Career Education requirement for this Contract is 30 hours. Failure to achieve these requirements may result in the application of some or all of the sanctions set forth in Administrative Policy 3.10, which is hereby incorporated by reference.

IN WITNESS WHEREOF, the parties here to have executed this Contract on the day, month and year first above written.

CONTRACTOR (Vendor #: V0822027)

By: _____
Authorized Representative

Date: _____

Fun Science, Inc. d/b/a Mad Science of Milwaukee, Inc.
PO Box 393
Oak Creek, WI 53154
(414) 858-9990

MILWAUKEE BOARD OF SCHOOL DIRECTORS

By: _____
Adria D. Maddaleni, J.D., Director
Procurement and Risk Management

Date: _____

By: _____
Keith P. Posley, Ed.D.,
Superintendent of Schools

Date: _____

SSN / FEIN:

Budget Code: 000-0-0-000-BL-ECTS

By: _____
Larry Miller, President
Milwaukee Board of School Directors

Date: _____

Reviewed by Risk Management:

By: _____ Date: _____

Exhibit A

Workshop Name	Workshop Description	Correlating NGSS	Target Grades
All About Animals	What is an animal? Feathers, fins, fur and more! Children explore the animal kingdom and learn about habitats, anatomy and life cycles of their favorite creatures. They experiment with camouflage, and explore the amazing sounds that animals make. Children step into the shoes of a naturalist and make their own animal track cast to take home.	K-LS1-1 K-ESS2-1 K-ESS3-1 2-LS4-1 3-LS4-3 3-LS1-1 3-LS4-2 4-LS1-1 MS-LS2-2	K-6
Black and Blue Oceans	Students will devise and test oil spill techniques in a mock oil spill and learn all about the pollution that plagues the oceans.	3-LS4-4 3-ESS3-1 5-ESS3-1 3-5-ETS1-2 MSESS3-3	K-6
Bugs!	Children get engrossed in entomology! They find out that insects are arthropods and inspect authentic insect specimens. Insect anatomy is introduced and examined up-close. A container of creepy crawlers is divided into insects and non-insects. An ultraviolet powder demonstration lights up the truth on how insects spread pollen. Children learn how insects adapt by building insect puzzles at habitat stations. They examine a bag of insect defense representations and choose the one they want. An Insect-A-Vision Take-Home kit allows the junior entomologist to get bug-eyed at home!	K-LS1-1 K-ESS2-1 K-ESS3-1 DCI LS1.A 2-LS2-2 2-LS4-1 3-LS4-3 3-ESS2-2 4-LS1-1	K-6
Chem In A Flash	Children take a trip through several fields of chemistry and discover the factors that can change the rate of a reaction. The class begins with a role-playing activity in which volunteers act out two different rates of reaction. This is followed by a hands-on demonstration on oxidation where the role of salt—as a	5-PS1-4 MS-PS1-2	K-6

	catalyst—is observed. The instructor demonstrates quick-acting reactions such as precipitation and acid-base reactions, followed by a balloon-expanding experiment to test limiting reagents (factors). Children will explore crystallization and receive a Take-Home Action Flask kit to perform more experiments. The class wraps up with a color-changing electrolysis demonstration that covers these cool chemical concepts		
Che-mystery	Discover the differences between chemical and physical reactions. Discover how water can turn into wine, how carbonation makes you burp and what a non-Newtonian fluid is. Make your own bouncing polymer to take home!	2-PS1-4 5-PS1-3 5-PS1-4 MS-PS1-2	K-6
Current Events	Discover the differences between chemical and physical reactions. Discover how water can turn into wine, how carbonation makes you burp and what a non-Newtonian fluid is. Make your own bouncing polymer to take home!	3-PS2-3 4-PS3-2 4-PS3-4 3-5-ETS1-1 3-5-ETS1-2	K-6
Decomposers	Take some worms add a little garbage and what do you get - fertilized soil and a whole lot of fun! This workshop allows children to gain an understanding of the concept of decomposition.	K-LS1-1 K-ESS3-3	K-6
Detective Science	Children use science to crack a case! The crime happens just before the Bustertown bake-off. Mr. Baker's big, fat, chewy, chocolate chip cookie is sabotaged and his recipe is stolen. The case kicks off with a crime scene investigation. The children examine fingerprints, mystery powders, ink samples, and teeth impressions. They also practice their memory skills to create a composite! Analyzing all the evidence is what helps pinpoint the perpetrator. The children take home a	5-PS1-3 5-PS1-4	K-6

	Personal Profile kit. They can use it to record their own fingerprints and other important information.		
Dinosaurs	Take some worms add a little garbage and what do you get - fertilized soil and a whole lot of fun! This workshop allows children to gain an understanding of the concept of decomposition.		K-6
DNA	This workshop is developed specifically for Grades 6-8, and will focus on one of the hottest topics in science today: DNA. An introduction to molecular biology will begin with the study of human chromosomes, how we inherit them and their composition. Students will take a close look at DNA by assembling a DNA model that they will be able to take home and will get to see real live DNA as they learn the molecular technique of DNA spooling. A teacher's guide and student activity workbook will be included with this workshop	MS-PS1-1	6-8
Dry Ice Capades	Children in this class will probe the shifting states of matter through a series of engaging demonstrations and inquiry-based activities. The class warms up with a molecular movement exercise to learn about the three states of matter. Next, students observe melted and resolidified metal— a shift of states from solid to liquid right before their eyes. Dry ice—the star of the show—used in a series of tests, under the guidance of the instructor, explores the properties of matter at extreme temperatures. Children use balloons to help visualize the volumetric difference between matter in solid and gaseous states. The class rolls toward a grand finale that engages the group in catching a cloud		K-6

Earthworks	Children dig-in to Earth science! Earth's layers are introduced with a spotlight on its outer rocky layer. Children investigate three rock samples to find out how they were made and where they were formed. They inspect minerals with an ultraviolet light to see them fluoresce. They model the moving plates that cause bends and breaks in the Earth's solid rock layer. Tremors are created to tip a tower, and then things get rocky with the Experi-tube Take-Home. Children can make it and shake it to see sediment settle into layers!	2-PS1-1 2-ESS1-1 K-2-ETS1-1 K-2-ETS1-3 4-ESS1-1 4-ESS2-2 4-ESS3-2 5-PS1-3 5-ESS2-1 3-5-ETS1-1 MS-ESS2-2 MS-ESS2-1	K-6
Electricity	Excite some electrons as you construct some serious circuits during this program all about electricity. Test various materials for conductivity with space-age plasma balls. Finally, create and play an electronic game.	3-PS2-3 4-PS3-2 4-PS3-4 5-PS1-3 3-5-ETS1-1	3-6
Energy Burst	Children explore the energy of motion (potential versus kinetic energy), and how energy can be conserved. They pop, jump, and flip with hopping, swimming, and swinging toys. Children check out the kinetic energy in rubber, band-wound gadgets and reach their potential with a kinetic marble-bounce take home.	KPS2-1 KPS2-2 4-PS3-1 4-PS3-3 MS-PS3-2	K-6
Fantastic Flyers	Take flight into the world of aeronautics as you discover how the 4 forces of flight help things soar into the sky. Build all kinds of paper aircraft and make a Skyhawk plane to take home to continue your high flying adventure!	KPS2-1 KPS2-2 K-2-ETS1-1 K-2-ETS1-2 K-2-ETS1-3 3-PS2-1 5-PS2-1 3-5-ETS1-2 MS-ETS1-1 MS-ETS1-2 MS-ETS1-3	K-6
Funda-mental Forces	Find out about forces by doing experiments on gravity, centripetal and inertia. Check out a gyroscope, make	KPS2-1 KPS2-2 3-PS2-1	K-6

	cars fly down a track and do a few balancing tricks to discover how forces shape motion.	4-PS3-1 5-PS2-1	
Get Connected	Children take on telecommunications and check out the power of sound. They make vibration waves by testing telephone cables, chat on a self-made telephone network, and find the limits to low-power radio signals. Children wind their way through a cell tower relay and learn how to track cell phone users.	1-PS4-4 4-PS3-2 4-PS3-4 4-PS4-3	K-6
Glow Show	Students will explore the bright world of light and color! They will learn how the human eye is able to perceive various colors in the presence of white light. Students will also participate in several experiments and activities that teach them about lighting and color concepts like chemiluminescence and fluorescence.	1-PS4-3 2-PS1-1 2-PS1-2	
Harnessing Heat	Take on temperature! Shake up a storm and see how friction creates heat. Feel how hot and cold can change at a touch. Apply your red-hot knowledge on your very own Heat Sheet to take home to continue your exploration of temperature.	2-PS1-1 2-PS1-2 MS-PS1-4 MS-PS3-3 MS-PS3-4	K-6
Heredity	This workshop is designed specifically for Grades 5-8. It involves a number of hands-on activities that will help students learn about such terms as heredity, traits, genes, genotype, phenotype, chromosome and cell division. This workshop includes a teacher's guide outlining activities to be performed with the class using material left behind after the workshop, and a student activity book.	MS-LS1-4	5-8
Inner Workings	This workshop will take an in-depth look at two of our organ systems: what they look like and how they operate. Students will learn to locate, name and orient the organs that make up these two systems and discuss how they	MS-LS1-3	6-8

	interact. Students will examine the digestive tract and develop and appreciation for its length and complexity. Students will have the opportunity to measure their own blood pressure and construct a two-pump heart model to clearly explain the function of this powerful organ. A teacher guide and student activity workbook will be included with this workshop.		
Invention-ation	Who gave us Morse code? How about earmuffs or the light bulb? Children will be guided from observation through presentation on their journey to becoming a great inventor.	3-5-ETS1-1 3-5-ETS1-2 3-5-ETS1-3 MS-ETS1-1 MS-ETS1-2 MS-ETS1-3	3-6
Junior Reactors	Students are introduced to the concepts of atoms and reactions! A demonstration of the differences between physical and chemical reactions is followed by a hands-on series of experiments. The relative size of an atom is introduced in a cutting edge race as the children try to reduce a strip of paper down to its atomic size! The class wraps up with a creative molecular session. The children explore how atoms join together and how molecules react using their Take-Home Atomic Coins kit.	2-PS1-4 5-PS1-1 5-PS1-4 MS-PS1-1 MS-PS1-2	K-6
Junior Detectives	Want to know who did it? Students will find out by using their Fingerprint Finder to place and identify UV prints as they explore fingerprint analysis. They will create, collect, and analyze evidence and discover what skills are necessary as a crime scene lab technician	2-PS1-1 2-PS1-2 2-PS1-3	
Kitchen Chemistry	Children get clued in on the chemical reactions that occur when they prepare, analyze, and digest their food. The class gets cooking with a color-changing solution display.	2-PS1-4 5-PS1-3 5-PS1-4 MS-PS1-2	K-6

	Children divide common kitchen activities into chemical and physical reactions. A balloon blow-up demonstration helps them discover that yeast makes bread rise. Children test food samples in search of nutrients, starch, and protein. They discover what happens after they eat and digest nutrient-rich foods with their own Digestor Inspector Take-Home.		
Life in the Sea	The ocean holds many mysteries and deep-sea creatures that seem more alien than earthly. Children learn about the vast range of life found in the sea—from plankton to sponges to whales! Children learn how plants and animals are adapted to their ocean habitats, and find out what humans can do to protect ocean life. Children bring the ocean home with a viewer and 3-D images of some wild underwater wonders.	K-LS1-1 K-ESS2-1 K-ESS3-1 K-ESS3-3 2-LS4-1 K-2-ETS1-3 3-LS4-3 3-LS4-4 3-LS1-1 4-LS1-1 5-PS3-1 5-LS2-1 5-ESS3-1 3-5-ETS1-2 MS-LS2-1 MS-LS2-3 MS-LS2-4 MS-LS2-2 MS-LS2-2	K-6
Lights...Color...Action!	Celebrate the science of color! Split your name in ink and reveal numbers with color filters. Make a rainbow out of white light and try on diffraction lenses. Color the world with your very own Technicolor Blender to explore how light and color combine	1-PS4-2 1-PS4-3 4-PS4-2 MS-PS4-2	K-6
Living in Space	Children set out on a mission to experience life in space! Children will try out the special adaptations needed to live in space, learn about mission training techniques, and form a ground control to space mission team to repair a circuit in space. The children take part in a Mad Science Spacewalk Mission that they can take home	5-PS2-1	K-6

Mad Science Machines	Children discover how simple machines make our lives easier. They learn about the six different types of simple machines: the screw, lever, inclined plane, wedge, pulley, and wheel and axle. Children launch with levers, secure with screws, and work with wedges through hands-on activities! A large child-operated pulley system demonstrates how pulleys help us move heavy objects easily. Children apply their newfound mechanical knowledge by building their very own Drag Racer Take-Home	KPS2-1 KPS2-2 2-PS1-3 K-2-ETS1-1 K-2-ETS1-3 3-5-ETS1-2	K-6
Magnetic Magic	Explore the power of magnets! Create electromagnets and control a compass needle. See a magnetic accelerator in action. Take home your very own Magnet Lab to continue your research about how magnets work in every day life.	3-PS2-3 3-PS2-4 5-PS1-3 MS-PS2-1 MS-PS2-5	K-6
Magnificient Magnets	Discover the invisible fields surrounding magnets with our iron fillings. Devise and perform experiments to test magnetic strength.		K-6
Matter of Fact	Explore how things are held together. See the dramatic differences between physical and chemical changes as you mix up a batch of your own Mad Science Putty to take home.	5-PS1-1 5-PS1-3 5-PS1-4 MS-PS1-1 MS-PS1-2	3-6
Measure for Measure	Children will have a unique opportunity to learn all about the metric system of measurement and trek through a treasure trail.		K-3
Mineral Mania	Recreate the process of rock formation and devise ways to identify and classify rocks and minerals. Experience the thrill of panning for gems; the gems you find, you can take home for further study and investigation.	4-ESS1-1 5-PS1-3	K-6
Mischievous Magnets	What makes metal magnetic? What shapes do magnetic fields invisibly form around different shaped magnets?		K-6

	Can compasses really help you to find your way? Discover the answers to these and many more questions about magnets and their fields.		
Mission: Nutrition	Step into some healthy habits! Put together a food pie and lay out a perfectly proportioned meal. See how much energy burning calories can give you. Clip on your Step-O-Meter and walk on to support a healthy lifestyle.	5-PS1-3	K-6
Mix It Up	Children shake up solutions and make mixtures with common household elements. They learn about the parts of mixtures and filter soap from a salty solution. Children use a carbon filter to clean up colored water and follow a color-changing experiment to see how useful a suspension can be. Children try out the tools and techniques of mixture sorting and take home a sorting kit.	2-PS1-1 K-2-ETS1-3 5-PS1-3 5-PS1-4 3-5-ETS1-2	K-6
Movie Effects	Movie Effects gives children a chance to sit in the director's chair and discover why science is the real star on the big screen. Exciting demonstrations and hands-on activities allow children to discover the science behind the amazing sound and weather effects from their favorite movies. Children investigate 3-D technology, and experience how this effect can make them feel like part of the action. Motion pictures come alive with a spinning praxinoscope. Children use the Cartoon Creator to make their own mini movie flipbooks that they can take home.	4-PS4-2	K-6
Moving Motion	Children learn all about the forces behind the movement of planes, trains, and automobiles. Catapulting into Newton's laws of motion lets children get a feel for friction, inertia, and gravity. They see how mass affects movement and try out some	KPS2-1 KPS2-2 3-PS2-1 3-PS2-2 4-PS3-1 4-PS3-3 5-PS2-1	K-6

	motion tricks! Children build an action-reaction car to take home.	MS-PS2-1	
Optical Illusions	Work against your eyes! Trick your brain with lines and coils. Discover how mirrors and their reflections can play tricks on what you see. Try to touch a mirage. Make a Periscope to see above and beyond and discover how mirrors work to create images.		K-6
Ph Factor	Students explore the crazy chemistry of acids and bases in this fascinating one-hour program on the pH scale. The pH Phactors hydrogen and hydroxide give a colorful introduction, and the Phantastic pH test is applied to common household chemicals. Students are challenged to bring a mystery liquid to a perfect pH balance.	5-PS1-3 MS-PS1-2	K-6
Photosynthesis	This workshop provides students with an introduction to photosynthesis, including an understanding of the chemical processes at work in the plant, plant respiration, and the role of plants in food webs.	3-LS3-2 4-LS1-1 5-LS1-1 MS-LS1-1 MS-LS1-6 MS-LS1-7	3-6
Planets and Moons	In this class, children set off on a voyage to discover the Solar System. They impersonate the planets to compare their sizes and distances from the sun, recreate a solar and lunar eclipse, and work out the relative size and distance of the Earth and its moon. Children learn how rockets escape the pull of gravity and build a Mad Science Gravity Assisted Launcher game to send probes into space	1-ESS1-1 MS-PS3-2 MS-ESS1-1 MS-ESS1-2 MS-ESS1-3	K-6
Playing with Polymers	Dissolve Styrofoam with a mystery chemical and make your very own slime to take home and experiment with.	5-PS1-4	K-6
Radical Robots	Children focus on service technology! They learn to tell the difference between a robot, an automaton, and a remote control device. Children explore how robots make our lives	4-PS4-3	K-6

	easier, program a robot to move through an obstacle course, control a robot through sound and light and check out the trick's list for Wrex the Robotic dog. Children get to design a robotic device to take home.		
Rocket Science	Children will follow a detailed construction plan to build their very own Mad Science Skyblazer Rocket while exploring the science of rocketry. Children will play a fun game to help them understand the four forces of flight.	KPS2-1 KPS2-2 3-PS2-1 4-PS3-1 5-PS2-1 MS-ETS1-1 MS-ETS1-2 MS-ETS1-3	K-6
Science of Magic	Discover how magical science can be and the science behind some basic magic tricks! Try out some Houdini chains, discover the science behind disappearing water and fool your friends with a very cool Curious Cube!		K-6
Science of Toys	Children test, play, and ponder over what makes toys work. They spin into action with kinetic top toys. One changes color and one flips over, but they all release stored energy. Children balance bugs and birds to reveal their centers of gravity. They learn that opposites attract with magnetic toys and then take a turn at creating a gear train. Don't forget to move out of the way for The String Thing—it's motorized! The class winds down with a Yo-yo Take-Home.	KPS2-1 KPS2-2 3-PS2-1 3-PS2-2 3-PS2-3 3-PS2-4 4-PS3-1 4-PS3-3 5-PS2-1 MS-PS3-2	K-6
Science of Security	Security has to do with keeping people or things safe. Governments use security systems to foil spies and prevent attacks. Prisons use security systems to make sure that no prisoners can break out. Businesses, banks, and even people who own homes use security systems to protect their property and outsmart thieves and intruders. Today we will learn about several tools and techniques used in security systems including	K-2-ETS1-1 K-2-ETS1-3 MS-ETS1-1 MS-ETS1-2 MS-ETS1-3 MSETS1-4	K-6

	locks, lasers, tripwires, and sound and motion sensors. By the end of day, we will be Mad Science security experts, and you will have a few tricks up your sleeve to set up surveillance and security systems for yourself!		
Slime Time	The Mad Science slime recipe is revealed in this ooey gooey chemistry class! Students will learn about slime and its basic ingredients in a series of hands-on activities. Polymer paper clips and cross-linking magnetic marbles will help to examine the key components of slime. Varied concoctions of slime will stir up in scientific style, and the properties of slime will be tested in a team-spirited fashion at the Slime Olympics!	5-PS1-4	K-6
Sonic Sounds	Uncover the source of sound! Tap into sound wave transmission and fill your ears with vibrations. Create a story with sound effects and change the pitch of your voice. Use your Sonic Horn to make some noise....a lot of noise!	1-PS4-1 4-PS3-2 4-PS4-1 4-LS1-2	K-6
Sounds Basics	Surf sound waves in this "off beat" class. We will explore how sounds are created and transmitted.	1-PS4-1	K-6
Space Phenomena	In Space Phenomena, children explore the phenomenal events that take place in the night sky. Children will create their own impact craters, and observe model meteors fall through a model atmosphere. After a friendly game of satellite tag using reflected light, children watch a model comet form right before their eyes. Children work with lenses to focus far away objects on a screen and then create a Mad Science Space Telescope to seek out space phenomena from home.	4-PS3-3 5-ESS1-1 MS-ESS1-2	K-6
Space Technology	Space Technology starts with an exploration of space-related	4-PS4-3	K-6

	technologies used on Earth. Children will help laser light through a maze, use principles of radar technology to discover hidden objects, and discover the importance of points of reference to depth perception. Children examine the potential threats to spacecraft and see the technological advances that improve our exploration of the universe. Children go home with a Mad Science Stereoscopic Viewer containing a set of stereoscopic images transmitted from probes and rovers in space.		
Space Travel	In Space Travel, children will launch their investigation of rocket propulsion using the compressed air inside balloons for thrust. The class will race balloon rockets and be challenged to devise a balloon-powered rocket car. Experimenting with the fast-moving air produced by spinning propellers, children will build a unique Mad Science Space Copter to take home. For our grand finale, children will witness a thrilling model rocket launch, and learn the meticulous preparations necessary to send up a rocket!	KPS2-1 KPS2-2 3-PS2-1 4-PS3-1 5-PS2-1 MS-PS3-2	K-6
Spy Academy	This workshop is all about spy tools, codes and secret communications. We will utilize spy gear such as metal detectors, spy ears, and motion sensors to hone our skills. Spies need to understand and use secret codes to pass along important information. Our Mad Science spies will investigate the dancing men code, Braille, and many other ways to share classified information. Use your new skills to write a message and digestively dispose of it before it can get into the wrong hands.	1-PS4-4 4-PS4-3	
Sun and Stars	Children investigate our sun and other stars in our galaxy and others in this primer on the universe's stars. They	1-ESS1-1 5-ESS1-1 MS-ESS1-3	K-6

	will follow stellar life cycles and view the stars from different angles of the universe. Children will learn the reasons for constellations and practice navigating by the stars. They bring home a Mad Science Cosmic Disk to guide their night time stargazing.		
Super Power Sources	Children check out the source behind electric power by working out how to generate electricity and by using mechanical force to turn on light bulbs and fans. They search for renewable and non-renewable resources and find out what makes a battery work. Children take home a hand-crank flashlight as a renewable source of sunshine!	4-PS3-4 4-ESS3-1 5-ESS3-1 3-5-ETS1-2 DCI ESS3.A-Natural Resources	K-6
Super Sticky Stuff	Children will get stuck on science in this one-hour class on sticky stuff! The class begins with a close-up examination of how Velcro hook-and-loop fasteners work. This is followed by a hands-on experiment with different types of tape adhesives. Wet glues are introduced in two inquiry-based experiments. Children learn how to perform a ranking test, and determine the optimal glue to use on various materials. A hands-on activity using scientific labware and everyday items introduce the concepts of suction, hydrogen bonding, and static cling. The children assemble their Take-Home Professor Beakerdude kit, a set of reusable adhesives and a beaker that they can use to perform experiments.	2-PS1-1 2-PS1-2 K-2-ETS1-3	K-6
Super Structures	Calling all junior engineers! Test out the basics of architectural design and structural engineering in this hands-on class about structures. Explore how triangles, arches and bridges shape our structures and apply some engineering to your very own bridge.	2-PS1-3 K-2-ETS1-1 K-2-ETS1-1 K-2-ETS1-3 3-5-ETS1-1 3-5-ETS1-2	K-6

Tantalizing Taste	Exercise your sense of taste! Magnify your taste buds and unplug your nose. Compare flavors with your friends and try a carbonated test challenge. Sort out the scents in the Scratch 'n Sniff game and discover how your nose and sense of taste are partners.	4-LS1-2 5-PS1-3 MS-LS1-8	K-6
The Glow Show	In this class white light is presented using a hands-on, tricolor experiment. Next, the nature of fluorescence and phosphorescence are unveiled in a black light demonstration. A discussion on the commercial applications of glow-in-the-dark products is followed by a challenge to find fluorescing materials among common objects. Chemiluminescence is demystified using a flashlight analogy. The students take part in a role-playing game that provides them with an understanding of the security features used in making real money. A Take-Home Blacklight Writer kit allows students to create security codes for their personal Mad Money		K-6
Under Pressure	Air is all around us, it has mass and it takes up space. Discover how Bernoulli's principle can keep things in the air and how we can use air pressure to move things. Build an air blaster and harness the power of pressure at home!		K-6
Wacky Water	Water, water everywhere! Explore the amazing properties of water - density, solvency and surface tension in this hands-on look at how water works. Build a Rescue Diver to take home to continue your underwater explorations.	K-ESS3-3 2-ESS2-3 K-2-ETS1-1 K-2-ETS1-3 3-ESS3-1 5-PS1-3 5-ESS3-1 3-5-ETS1-2 MS-PS3-4 DCI ESS2.C-Ocean Currents	K-6

		MSESS3-3	
Walloping Weather	Children get weather-wise in this climate-controlled class! A demonstration using heat sensitive paper and a flashlight brings to light the reasons for seasons. Children discover how air affects weather, and perform a test to prove that air is everywhere. Children try out tools that meteorologists use to measure weather. They create three- day weather forecasts for cities around the world and stage a statically charged indoor storm. Children take home the color-changing Sun Beads kit to detect ultraviolet light from the sun.	K-ESS2-1 K-ESS3-2 P-PS3-1 1-ESS1-2 3-ESS2-1 3-ESS2-2 5-ESS2-1 MS-ESS2-4 MS-ESS2-5 MSESS2-6	K-6
Watts-Up	Exercise your sense of taste! Magnify your taste buds and unplug your nose. Compare flavors with your friends and try a carbonated test challenge. Sort out the scents in the Scratch 'n Sniff game and discover how your nose and sense of taste are partners.	3-PS2-3 3-ESS3-1 5-PS1-3 MS-PS2-5	K-6
Where's the Air	This dynamic class explores the concepts of air pressure and buoyancy through hands-on experimentation and thought-provoking demonstrations.		K-6