

Health Insurance Portability and Accountability Act (HIPAA)
BUSINESS ASSOCIATE AGREEMENT

This Business Associate Agreement (the "Agreement") is made and entered into as of the 1st day of August, 2017 (hereinafter the "Date") by and between **Duluth Public Schools - ISD 709**, on behalf of **Duluth Public Schools - ISD 709's Health & Welfare Benefit Plans** (hereinafter "Covered Entity"), and **Marsh & McLennan Agency LLC** (hereinafter "Business Associate").

Recitals

WHEREAS, the Department of Health and Human Services ("HHS") has promulgated regulations at 45 C.F.R. Parts 160-164, implementing the privacy and electronic security requirements set forth in the Administrative Simplification provisions of the Health Insurance Portability and Accountability Act of 1996, Public Law 104-191, as amended by American Recovery and Reinvestment Act of 2009 (P.L. 111-5, ARRA) ("HIPAA");

WHEREAS, Business Associate acknowledges that certain provisions of HIPAA have been amended in ways that directly regulate Business Associate's obligations and activities with respect to PHI;

WHEREAS, HIPAA provides, among other things, that Covered Entity is permitted to disclose Protected Health Information (as defined below) to Business Associate and allow Business Associate to obtain and receive Protected Health Information, if Covered Entity obtains satisfactory assurances in the form of a written contract that Business Associate will appropriately safeguard the Protected Health Information; and

WHEREAS, Business Associate will create, receive, maintain or transmit certain Protected Health Information in conjunction with the services being provided by Business Associate to Covered Entity, thus necessitating a written agreement that meets the applicable requirements of HIPAA. Both parties have mutually agreed to satisfy the foregoing regulatory requirements through this Agreement.

NOW THEREFORE, Covered Entity and Business Associate agree as follows:

1. Definitions; Applicability.
 - (a) All terms not defined herein shall have the meaning ascribed to them in HIPAA.
 - (b) This Agreement shall apply only with respect to and to the extent that Business Associate creates, receives, maintains or transmits PHI for or on behalf of Covered Entity.
2. Obligations and Activities of Business Associate
 - (a) Business Associate agrees to not use or further disclose Protected Health Information other than as permitted or required by this Agreement or as Required by Law.
 - (b) Business Associate agrees to use commercially reasonable and appropriate safeguards to prevent use or disclosure of the Protected Health Information other than as provided for by this Agreement.
 - (c) Business Associate agrees to report to Covered Entity any use or disclosure of the Protected Health Information not provided for by this Agreement of which it becomes aware. In event of a Breach

of Unsecured PHI by Business Associate or any of its officers, directors, employees, or subcontractors, Business Associate shall promptly notify Covered Entity in accordance with 45 C.F.R. 164.410.

(d) Business Associate and Covered Entity agree to mitigate, to the extent practicable, any harmful effect that is known to it arising out of a use or disclosure of Protected Health Information in violation of the requirements of this Agreement.

(e) Business Associate agrees to ensure that any subcontractors that create, receive, maintain, or transmit Protected Health Information on behalf of Business Associate agrees to substantially similar restrictions and conditions that apply through this Agreement to Business Associate with respect to such information.

(f) Business Associate agrees to provide access to Protected Health Information in a Designated Record Set, in the time and manner Required by Law, to Covered Entity or, as directed by Covered Entity, to an Individual, in order to meet the requirements under 45 C.F.R. 164.524. Business Associate may impose a reasonable cost-based fee for the provision of copies of PHI in a Designated Record Set in accordance with 45 C.F.R. 164.524(c)(4).

(g) Business Associate agrees to make any amendment(s) to Protected Health Information in a Designated Record Set pursuant to 45 C.F.R. 164.526 at the request of Covered Entity or an Individual, and in the time and manner Required by Law.

(h) Business Associate agrees to make internal practices, books, and records relating to the use and disclosure of Protected Health Information received from, or created or received by Business Associate, on behalf of Covered Entity, available to the Secretary, for purposes of the Secretary determining Covered Entity's or Business Associate's compliance with HIPAA.

(i) Business Associate agrees to document such disclosures of Protected Health Information and information related to such disclosures as would be required for Covered Entity to respond to a request by an Individual for an accounting of disclosures of Protected Health Information in accordance with 45 C.F.R. 164.528.

(j) Business Associate agrees to provide to Covered Entity, upon request and in the time and manner Required by Law, an accounting of disclosures of an Individual's Protected Health Information, collected in accordance with Section 2(i) of this Agreement, to permit Covered Entity to respond to a request by an Individual for an accounting of disclosures of Protected Health Information in accordance with 45 C.F.R. 164.528. If Covered Entity requests an accounting of an Individual's Protected Health Information more than once in any twelve (12) month period, Business Associate will impose a reasonable fee for such accounting in accordance with 45 C.F.R. 164.528(c).

(k) Business Associate agrees to comply, where applicable, with Subpart C of 45 CFR Part 164 to maintain the security of the Electronic Protected Health Information and to prevent unauthorized uses or disclosures of such Electronic Protected Health Information. Business Associate shall report to the Covered Entity any Security Incident that results in the unauthorized use or disclosure of Protected Health Information of which it becomes aware.

3. Permitted Uses and Disclosures by Business Associate

(a) Business Associate may use or disclose Protected Health Information to perform its obligations and services to Covered Entity, provided that such use or disclosure would not violate HIPAA if done by Covered Entity.

(b) Business Associate may use Protected Health Information for the proper management and administration of the Business Associate or to carry out the legal responsibilities of the Business Associate or as otherwise permitted by HIPAA.

(c) Business Associate may disclose Protected Health Information for the proper management and administration of the Business Associate, provided that disclosures are Required by Law, or Business Associate obtains reasonable assurances from the person to whom the information is disclosed that it will be held confidential and used or further disclosed only as Required by Law or for the purpose for which it was disclosed to the person, and the person notifies the Business Associate of any instances of which it is aware in which the confidentiality of the information has been breached.

(d) Business Associate may use Protected Health Information to provide data aggregation services to Covered Entity.

4. Obligations of Covered Entity.

4.1 Provisions for Covered Entity to Inform Business Associate of Privacy Practices and Restrictions

(a) Covered Entity shall provide Business Associate with the notice of privacy practices that Covered Entity produces in accordance with 45 C.F.R. § 164.520, as well as any changes to that notice.

(b) Covered Entity shall provide Business Associate with any changes in, or revocation of, permission by Individual to use or disclose Protected Health Information, if such changes affect Business Associate's permitted or required uses and disclosures.

(c) Covered Entity shall notify Business Associate, in writing, of any restriction to the use or disclosure of Protected Health Information that Covered Entity has agreed to in accordance with 45 C.F.R. § 164.522.

(d) Covered Entity warrants and represents that it shall provide to, or request from, the Business Associate only the minimum Protected Health Information necessary for Business Associate to perform or fulfill a specific function required or permitted hereunder.

(e) If Protected Health Information is transmitted by electronic transfer or sent in physical media by or on behalf of Covered Entity, Covered Entity shall transmit all such Protected Health Information to Business Associate in an encrypted format, to be mutually agreed by the parties.

4.2 Permissible Requests by Covered Entity. Covered Entity represents and warrants that it has the right and authority to disclose Protected Health Information to Business Associate for Business Associate to perform its obligations and provide services to Covered Entity, and Covered Entity shall not request Business Associate to use or disclose Protected Health Information in any manner that would violate HIPAA, other applicable laws or Covered Entity's privacy notice, if done by Covered Entity.

5. Term and Termination

(a) Term. The provisions of this Agreement shall take effect as of the earlier of (i) the Date, or (ii) September 23, 2013 (such date, the "Effective Date"), and shall continue for so long as Business Associate provides services to Covered Entity.

(b) Termination for Cause. Upon the parties mutual agreement that there has been a material breach by Business Associate which does not arise from any breach by Covered Entity, Covered Entity shall provide an opportunity for Business Associate to cure the breach or end the violation and terminate this Agreement if Business Associate does not cure the breach or end the violation within a mutually agreeable time, or immediately terminate this Agreement if cure of such breach is not possible.

(c) Effect of Termination.

(1) Except as provided in paragraph (2) of this section, upon termination of this Agreement, for any reason, Business Associate shall return or destroy all Protected Health Information received from Covered Entity, or created or received by Business Associate on behalf of Covered Entity. Business Associate shall request, in writing, Protected Health Information that is in the possession of subcontractors of Business Associate.

(2) In the event the Business Associate determines that returning or destroying the Protected Health Information is infeasible, Business Associate shall extend the protection of this Agreement to such Protected Health Information and limit further uses or disclosures to those purposes that make the return or destruction infeasible, for so long as Business Associate maintains such Protected Health Information.

6. Miscellaneous

(a) Regulatory References. A reference in this Agreement to a section in HIPAA means the section as in effect or as amended, and for which compliance is required.

(b) Amendment. Upon the enactment of any law or regulation affecting the use or disclosure of Protected Health Information, or the publication of any decision of a court of the United States or any state relating to any such law or the publication of any interpretive policy or opinion of any governmental agency charged with the enforcement of any such law or regulation, the parties agree to negotiate in good faith to amend the Agreement as necessary to comply with such law or regulation.

(c) Survival. The obligations of Business Associate under section 5(c)(2) of this Agreement shall survive the termination of this Agreement.

(d) Interpretation; Entire Agreement. Any ambiguity in this Agreement shall be resolved in favor of a meaning that permits both parties to comply with HIPAA. This Agreement constitutes the complete agreement between the parties relating to the matters specified herein, and supersedes all prior representations or agreements, whether oral or written, with respect to such matters.

(e) No third party beneficiary. Nothing express or implied in this Agreement is intended to confer, nor shall anything herein confer, upon any person other than the parties and the respective successors or assigns of the parties, any rights, remedies, obligations, or liabilities whatsoever.

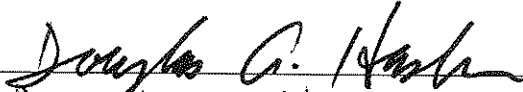
(f) Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York.

[Signature Page Follows]

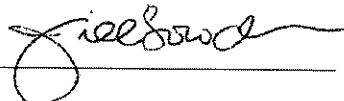
IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

Duluth Public Schools - ISD 709,

On behalf of: Duluth Public Schools - ISD 709's Health & Welfare Benefit Plans

By: 
Name: Douglas A. Hasler
Title: CFO

Marsh & McLennan Agency LLC

By: 
Name: Jill M. Lowder
Title: Chief Operating Officer

**Memorandum of Agreement
Between
Children's Dental Services (CDS)
And
The Duluth Public School District
Regarding
School-Based Dental Clinics**

This Memorandum of Agreement is designed to formalize the continuing relationship between Children's Dental Services (CDS), hereinafter referred to as CDS and the Duluth School District, hereinafter referred to as DSD, regarding the operation of school-based dental clinics (SBDC).

Terms of Agreement

1. DSD agrees to provide the following at no cost to CDS at each of the schools where clinic services are provided:
 - Space as renovated and presently defined including reception area, examination rooms, shared bathrooms, conference rooms, offices, and storage. When possible and at the discretion of each Principal, CDS will have access to conference rooms.
 - All utilities.
 - Routine maintenance and repairs (e.g. light bulbs, windows, ceiling tiles, towels, toilet paper).
 - Rubbish removal (non-hazardous waste).
 - Custodial and housekeeping services.
 - Access to the internet and phones at each site.
 - Printing and inclusion of CDS parental consent form and other brochures in each school's annual "back to school" mailing.

2. CDS will provide the following at no cost to DSD:
 - Comprehensive school-based dental center services as defined in the consent form and in compliance with CDS policies.
 - Dental care and equipment and supplies (pharmaceuticals, laboratory and medical) for use in care.
 - Proper maintenance and disposal of hazardous waste.
 - Appropriate staffing for the dental care (with training and licensing as required by law).
 - Supervision of dental staff.
 - All billing responsibilities.
 - Dental malpractice insurance for all appropriate staff.

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- All dental equipment (portable or permanent) is the property and responsibility of CDS. It remains property of CDS should the agreement end, and all repairs and maintenance of the dental equipment are the responsibility of CDS.

CDS agrees to annually provide a parental consent form template for the back-to-school mailing at the schools.

3. CDS agrees to add the following language to parent consent forms:
 "Duluth School District may give information about your child's class schedule to Children's Dental Services".
4. CDS and DSD mutually give permission to include names and other descriptive information about CDS on-site dental care in their respective catalogs, brochures and correspondence, naming CDS as the entity operating the dental care, and the DSD is the host and collaborating agency for the dental care.
5. CDS agrees that it has complete operational responsibility over the provision of dental care. This responsibility includes securing funding, and adjusting staffing levels or hours of operation according to school hours.
6. CDS will protect the confidentiality of any and all information received from students who seek services at the children's dental clinic unless disclosure is necessary for the health and safety of the student and/or other persons.
7. CDS and DSD staff will work cooperatively. This includes collaboration whenever possible between clinic staff and school nurse/school social worker in addressing student needs.
8. Either DSD or CDS may terminate this Agreement with or without cause upon at least ninety (90) days written notice to the other party. However, if an academic semester has commenced or is within sixty (60) days of commencing, such notice of termination shall not be effective until completion of said semester. Semester and end of year is defined by the high school calendar.
9. This agreement will commence on 9/27/2017 and shall remain effective until such time as either or both parties agree, in writing, to any changes and/or termination giving at least thirty (30) days' notice.
10. This Agreement constitutes the entire understanding and Agreement between CDS and DSD with regard to all matters herein. This Agreement supersedes in the entirety any and all previous agreements, whether written or oral, between the parties.
11. This Agreement may be amended only in writing signed by all the parties hereto.

12. All notices and other communications required or desired to be given shall be given personally, or sent by telefax, registered or certified mail, postage prepaid, return receipt requested to the persons and the addresses set forth at the end of the contract. Notices will be deemed received (a) on the date delivered, if delivered personally; (b) when sent by telefax (if confirmation notice is sent by registered or certified mail on the same day; or (c) three (3) business days after posting, if sent by registered or certified mail:
13. The laws of the State of Minnesota shall govern this Agreement.
14. Nothing herein shall create or be deemed to create any relationship of agency, joint venture or partnership between DSD and CDS. Neither party shall have the power to bind or obligate the other in any manner except as expressly provided in this Agreement.
15. Neither party shall be liable to the other or be deemed to be in breach of the Agreement for any failure or delay in rendering performance arising out of causes beyond its reasonable control and without its fault or negligence. Such causes may include, but are not limited to, acts of God or the public enemy, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes or unusually severe weather.
16. If any provision of this Agreement is declared or found to be illegal, unenforceable, or void, then both parties shall be relieved of all obligations under that provision. The remainder of the Agreement shall be enforced to the fullest extent permissible by law.
17. Any waiver, expressed or implied, by either party of any rights, terms or conditions of the Agreement shall not operate to waive such rights, terms or conditions or any other rights, terms, or conditions beyond the specific instance of waiver.
18. CDS and DSD shall indemnify and defend each other with respect to claims made by third parties concerning the respective performance of the matters referenced herein.

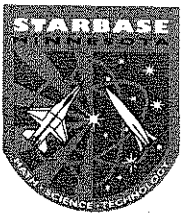
The Parties hereby cause this instrument to be executed by their duly authorized officers:

 Sarah Wovcha, J.D., M.P.H.
 Executive Director,
 Children's Dental Services
 636 Broadway Street NE
 Minneapolis, MN 55413
 (612) 746-1530 ext. 204

 Date

William Gronseth
Superintendent of Duluth Public Schools
ISD #709
215 N First Avenue East
Duluth, MN 55802
(218) 336-8752

Date



STARBASE Minnesota and Duluth Public Schools Memorandum of Understanding for Participation in STARBASE Programs beginning Fall 2017

MEMORANDUM OF UNDERSTANDING (MOU) BETWEEN: STARBASE Minnesota and Duluth Public Schools

DATE: August 14, 2017

AGREEMENT BETWEEN STARBASE Minnesota: Charity Rupp, Director, STARBASE Minnesota – Duluth

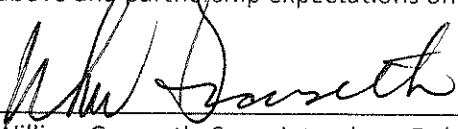
WITH: Duluth Public Schools: William Gronseth, Superintendent, Duluth Public Schools #709

PURPOSE OF MEMOORANUDM OF UNDERSTANDING: The purpose of this MOU is to outline STARBASE programs and services that will be provided to Duluth Public Schools, as well requirements for participation by Duluth Public Schools.

STARBASE Minnesota is: a 501(c)3 nonprofit organization, founded in 1993, whose purpose is to educate and inspire youth in science, technology, engineering and math (STEM). STARBASE Minnesota -Duluth is a program of the Department of Defense (DoD) and supported by the Minnesota National Guard who provide an exciting, technology-rich environment for learning, inkind services and volunteers to the program. At STARBASE, fifth graders learn scientific and engineering design concepts integrated with math and technology in the exciting realm of becoming engineers tasked with engineering robotic and human missions to Mars. They conduct experiments like real scientists and engineers to learn about concepts such as Newton's Laws, forces of flight, properties of air, energy transfer, renewable energy, mass, weight and the vacuum of Space. They gain skills in coordinate graphing, plotting, geometry, median, mean, volume, measurement, area, estimating, and data analysis. Students learn to think like scientists and engineers, investigating with rovers, vacuum pumps, simulations, temperature probes, rockets, solar panels, generators, wind turbines, engineering design software, 3D printing and other advanced technologies. They explore careers and interact with members of the MN National Guard and at times, local scientists and engineers to see, first-hand, how STEM is used in the workplace. Since 1993, over 58,000 students, hundreds of principals, thousands of teachers, parents, corporate scientists and engineers and other community members have participated in STARBASE Minnesota programs. There are over 55 STARBASE locations in over 40 states in the United States and Puerto Rico. STARBASE is located on the MN Air National Guard base near the Mpls/St. Paul International Airport and at the 148th Fighter Wing in Duluth, Minnesota. STARBASE programs are free to schools; schools pay for transportation and student lunches in a shared partnership and investment.

Data and Reporting: The DoD STARBASE program has specific requirements to collect and report program data in order to receive and maintain funding. All participating districts and schools must agree to meet the requirements outlined here and in the partnership agreement in order to participate. As part of the STARBASE program students take pre and post tests to measure change in knowledge, skills, attitudes in STEM and career awareness. Pre/post results are reported back to classroom teachers upon conclusion of the program and provide the district, schools and teachers valuable information about student performance and attitudes in STEM. Internally at STARBASE, pre/post data is reviewed at a both macro and micro level in order to maximize effectiveness of programs, curriculum and instructional strategies to meet the needs of all learners. Student data is used in longitudinal studies to measure long term impacts of our programs. At no time will individual student info/data be reported externally by student except reports to classroom teachers and principals. All external reporting uses aggregate data. **Duluth Public Schools agrees to provide the following student data in order to meet DoD and STARBASE Minnesota requirements:** student names, their student ID#, gender, race/ethnicity, language, and free/reduced lunch information per student. This data will be provided by each participating school. In addition, all adults participating must provide required security information in advance of participation in order to enter onto the military base, depending upon security levels set nationally. Typically, this includes full name, date of birth and driver's license information. The signatures below, document the agreement between STARBASE Minnesota –Duluth and Duluth Public Schools to meet the data requirements described above and partnership expectations on the following page.

Charity Rupp, STARBASE Minnesota – Duluth



William Gronseth, Superintendent, Duluth Public Schools

PARTNERSHIP AGREEMENTS with important information below are provided to each school. (See sample information below). Each principal and participating teachers must agree to the expectations outlined. The services and requirements noted below are based on best practices and successful partnership models gleaned from working with over 58,000 students, hundreds of principals, thousands of teachers, and extensive metrics, including longitudinal data, over the past 24 years that together has shaped one of the most measurably successful and in-demand STEM programs in the Midwest.

STARBASE Minnesota will provide:

1. Integrated STEM programming

- 25 hours over 5 consecutive days, ⁵4 hours/day — for 5th grade students
- High quality, hands-on and engaging activities for students and their participating teachers
- Academically rigorous and relevant programming with real-world problem solving and application, aligned to state and national standards
- Approximately 16-20 student/teacher ratio (at most times)
- “Flight log” (workbook) provided to students that highlights integration of STEM
- No cost to schools – supported by funding through the Department of Defense, schools must provide transportation and lunches

2. State of the Art Technology

- Students are immersed in a technology rich environment, including CAD software, 3D printers, robotics, GPS, interactive instructional technology and computers for every child
- Integrated STEM programming, evident in the “Flight Log” (workbook) provided to each student
- Located on the 148th Fighter Wing, close proximity to airport and F16 aircraft, often seen overhead

3. Professional, licensed instructors

- Instructors are professional educators, licensed in the state of Minnesota, specializing in STEM
- Instructors teach approximately 300-400 students each year, resulting in high levels of experience differentiating curriculum for students’ wide ranging needs – language, culture, and learning needs

4. STEM Pathways Booklet (REQUIRED IMPLEMENTATION BY PARTICIPATING TEACHERS)

- Journaling pages for students to complete required daily STEM journaling during the program
- Incentive based engagement in STEM learning where students may earn lanyards and pins based on completion of STEM activities that can be conducted in school or at home.
- STEM career skill development and tools for use after STARBASE programming, including tools to aid in STEM career exploration

5. Program documentation

- Documentation outlining lesson descriptions and alignment by grade level to state benchmarks in STEM related content areas of math and science

6. Guidance to teachers and adults

- Brief orientation for adults (teachers, staff, parent volunteers) conducted by STARBASE instructors, outlining daily activities, expectations and roles, to help students engage in STARBASE programming

7. Electronic pre/post testing, reporting, and surveys

- Measure change in knowledge, skills and attitudes in STEM and career interests
- Pre-tests measure baseline knowledge, enabling STARBASE teachers to tailor instruction
- Post STARBASE assessment and survey results shared with schools; individual and group results
- Photos of the week’s experience shared with schools

8. Teacher surveys

- Utilized internally for program analysis and development
- With permission, used for testimonials and reporting

9. Volunteers from MN Air National Guard and STEM industry

- Guard members share importance of STEM as graduation speakers, assist with rocket launches
- *In development for future:* Scientists and engineers from STEM industry may volunteer, giving short career presentations to students (depending on schedule)

10. Detailed registration information

- Shared via email and website links
- Personalized website links are emailed to teachers 4-6 weeks in advance of program start
- Websites provide access to STARBASE information, permission slips, online forms to register students and adults, and various pre and post STARBASE resources

Participating Districts and Schools will provide:

1. Leadership awareness and support

- District and school leadership support and involvement for participation in STARBASE programs, including Superintendent awareness and support
- Involvement of district STEM personnel and STEM coordinators at school sites, school-based science and/or STEM specialists are encouraged to attend at least one day of programming to aid in learning transfer

2. Required student and adult information

- Teachers and/or schools submit required student information as noted on student permission slip and online class registration forms, including demographic and student ID information per required timeline in advance of participation
- Submit security information for all adults via online forms (full name, date of birth, driver's license number)

3. Coordination with STARBASE

- Timely communications with STARBASE; replying to STARBASE emails and requests for information within one to two days.
- Meet expected deadlines for submitting required information
- Communication of special needs of students and staff

4. Bus transportation and lunches

- Bus transportation to and from STARBASE, drop off and pick-up only, bus does not need to stay all day
- Cold lunches for students/adults (STARBASE will provide cold storage)

5. Daily participation by classroom teachers

- Classroom teachers attend each day, actively participating in program per role (Specific information about role in supporting student learning provided by STARBASE instructor)

6. Additional adults

- In addition to classroom teachers, enough additional adults so there is a classroom teacher or adult in each STARBASE class/team of 16 (STARBASE has 16:1 student/teacher ratio)
- Additional adults may include other teachers, educational specialists, STEM coordinators, or parents

7. Principal visit to STARBASE

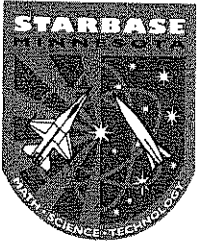
- Principals schedule a visit to STARBASE during each STARBASE program and observe a minimum of 1-2 hours each time their school is scheduled

8. STARBASE learning transfer

- REQUIRED – Utilization of STEM Pathways booklet before, during, and after STARBASE participation. Booklet includes resources for journaling, incentive-based Clubhouse activities, and resources for extending STEM career skills reflection and career exploration
- Teachers build off learning at STARBASE, making content connections and promoting continued STEM learning and sustain enthusiasm for STEM

9. Required Follow-up reporting

- Participating schools report information back to STARBASE after the STARBASE experience on measureable impact of program and on the transfer and further promotion of STEM content, skills, strategies after the STARBASE
- Reporting methods are tailored per district/school, jointly agreed upon



Partnership Agreement

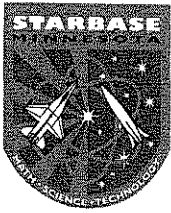
2017-18 School Year

STARBASE Minnesota
&
(School)

2017-2018 Dates

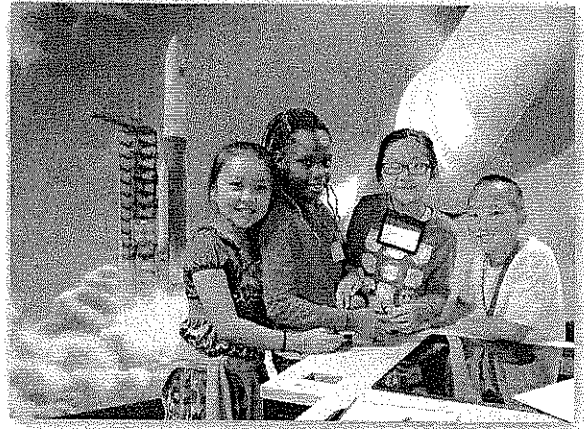
(Dates)

STARBASE Minnesota and School Partnership Agreement



STARBASE Minnesota is: a 501(c)3 nonprofit organization, founded in 1993, whose purpose is to educate and inspire youth in science, technology, engineering and math (STEM). STARBASE is a program of the Department of Defense and supported by the Minnesota National Guard who provide an exciting, technology-rich facility, access to a unique aerospace environment, in-kind professional services and volunteers to the program. There are 59 STARBASE locations in 31 states in the United States and Puerto Rico. STARBASE has a 19-member Board of Directors with backgrounds in business, education, military and government. STARBASE is located on the MN Air National Guard base near the Mpls/St. Paul International Airport and the 148th Fighter Wing in Duluth, Minnesota. In FY 16, STARBASE Minnesota served 3,595 students from more than 30 Twin Cities' schools in six districts.

The purpose of this document is to outline the partnership agreement between STARBASE Minnesota and the participating district and school, and the support and services each partner will provide. The services and requirements noted below are based on best practices and successful partnership models gleaned from working with over 57,000 students, hundreds of principals, thousands of teachers, and extensive metrics, including longitudinal data, over the past 24 years that together has shaped one of the most measurably successful and in-demand STEM programs in the Midwest.



At STARBASE Minnesota, students learn: scientific and engineering design concepts integrated with math and technology in the intriguing realm of becoming engineers, then getting to and exploring Mars. They conduct experiments like real scientists and engineers to learn about Newton's Laws, forces of flight, properties of air, energy transfer, renewable energy, mass, weight and the vacuum of Space. They gain skills in coordinate graphing, plotting, geometry, median, mean, volume, measurement, area, estimating, and data analysis. Students learn to think like scientists and engineers, investigating with rovers, vacuum pumps, simulations, temperature probes, rockets, solar panels, generators, wind turbines, engineering design software, 3D printing and other advanced technologies. They explore careers and interact with members of the MN National Guard and at times, local scientists and engineers to see, first-hand, how STEM is used in the workplace. *See descriptions for each STARBASE program, specific lessons, objectives and their alignment to state standards.*

STARBASE Minnesota will provide:

1. Integrated STEM programming

- 25 hours over 5 consecutive days, 5 hours/day
- High quality, hands-on and engaging activities for students and their participating teachers
- Academically rigorous and relevant programming with real-world problem solving and application, aligned to state and national standards
- 16:1 student/teacher ratio (at most times)
- Flight log (workbook) provided to students highlight integration of STEM
- No cost to schools – supported by funding through the Department of Defense, schools must provide transportation and lunches.

2. State of the art technology

- Students are immersed in a technology rich environment, including CAD software, 3D printers, robotics, GPS, interactive instructional technology and computers for every child
- Integrated STEM programming, evident in the "Flight Log" (workbook) provided to each student
- Located on the 148th Fighter Wing, close proximity to airport and F16 aircraft, often seen overhead

3. **Professional, licensed instructors**
 - Instructors are professional educators, licensed in the state of Minnesota, specializing in STEM
 - Instructors teach 300-400 students each year, resulting in high levels of experience differentiating curriculum for students' wide ranging needs – language, culture, and learning needs
4. **STEM Pathways Booklet (REQUIRED IMPLEMENTATION BY PARTICIPATING TEACHERS)**
 - Journaling pages for students to complete required daily STEM journaling during the program
 - Incentive based engagement in STEM learning where students may earn lanyards and pins based on completion of STEM activities that can be conducted in school or at home
 - STEM career skill development and tools for use after STARBASE programming, including tools to aid in STEM career exploration
5. **Program documentation**
 - Documentation outlining lesson descriptions and alignment by grade level to state benchmarks in STEM related content areas of math and science
6. **Guidance to teachers and adults**
 - Brief orientation for adults (teachers, staff, parent volunteers) conducted by STARBASE instructors, outlining daily activities, expectations and roles, to help students engage in STARBASE programming
7. **Electronic pre/post testing, reporting, and surveys**
 - Measure change in knowledge, skills and attitudes in STEM and career interests
 - Pre-tests measure baseline knowledge, enabling STARBASE teachers to tailor instruction
 - Post STARBASE assessment and survey results shared with schools; individual and group results
 - Photos of the week's experience shared with schools
8. **Teacher surveys**
 - Utilized internally for program analysis and development
 - With permission, used for testimonials and reporting
9. **Volunteers from MN Air National Guard and STEM industry**
 - Guard members share importance of STEM as they serve as graduation speakers, assist with rocket launches
 - *In development for future:* Scientists and engineers from STEM industry may volunteer, giving short career presentations to students (depending on schedule)
10. **Detailed registration information**
 - Shared via email and website links
 - Personalized website links are emailed to teachers 4-6 weeks in advance of program start
 - Websites provide access to STARBASE information, permission slips, online forms to register students and adults, and various pre and post STARBASE resources

Participating Districts and Schools will provide:

1. **Leadership awareness and support**
 - District and school leadership support and involvement for participation in STARBASE programs, including Superintendent awareness and support
 - Involvement of district STEM personnel and STEM coordinators at school sites, school-based science and/or STEM specialists are encouraged to attend at least one day of programming to aid in learning transfer
2. **Required student and adult information**
 - Involvement of district STEM personnel and STEM coordinators at school sites, school-based science and/or STEM specialists are encouraged to attend at least one day of programming to aid in learning transfer

3. STARBASE learning transfer

- REQUIRED – Utilization of STEM Pathways booklet before, during, and after STARBASE participation. Booklet includes resources for journaling, incentive-based Clubhouse activities, and resources for extending STEM career skills reflection and career exploration
- Teachers build off learning at STARBASE, making content connections and promoting continued STEM learning and sustain enthusiasm for STEM

4. Daily participation by classroom teachers

- Classrooms teachers attend each day, actively participating in program per role (Specific information about role in supporting student learning provided by STARBASE instructor)

5. Required Follow-up reporting

- Participating schools report information back to STARBASE after the STARBASE experience on measureable impact of program and on the transfer and further promotion of STEM content, skills, strategies after the STARBASE.
- Reporting methods are tailored per district/school, jointly agreed upon

6. Bus transportation and lunches

- Bus transportation to and from STARBASE, drop off and pick-up only, bus does not need to stay all day
- Cold lunches for students/adults (STARBASE will provide refrigerator)

7. Coordination with STARBASE

- Timely communications with STARBASE; replying to STARBASE emails and requests for information within one to two days.
- Meet expected deadlines for submitting required information
- Communication of special needs of students and staff

8. Additional adults

- In addition to classroom teachers, enough additional adults so there is a classroom teacher or adult in each STARBASE class/team of 16 (STARBASE has 16:1 student/teacher ratio)
- Additional adults may include other teachers, educational specialists, STEM coordinators, or parents

9. Principal visit to STARBASE

- Principals schedule a visit to STARBASE during each STARBASE program and observe a minimum of 1-2 hours each time their school is scheduled

10. Required student and adult information

- Teachers and/or schools submit required student information as noted on student permission slip and online class registration forms, including demographic and student ID information per required timeline in advance of participation
- Submit security information for all adults via online forms (full name, date of birth, driver's license number)

Contact Information

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