



Fattah Learning Lab

Science Skills on Wheels



School Manual

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Preparing for Your Mobile Science Experience

This packet contains information to prepare you and your 4 to 6 grade students for an experience of a lifetime—a visit from the Fattah Learning Lab. Please be sure to review the packet carefully and return any necessary paperwork prior to the Learning Lab experience. This packet includes:

- Preparing for your visit overview
- Addressing PA standards
- Contact Information Form^{*}
- Parking Map^{*}
- Class List Form^{*}
- A Note to Teachers
- A Note to Parents/Guardians
- Safety Contract^{*}
- Lesson Plans offered
- Student Survey^{*}
- Teacher Evaluation^{*}
- Teacher's Helper-Lesson plan overview^{**}

Students need to do science, not just read about it. The Fattah Learning Lab is a hands-on science laboratory. Your class will be doing activities that incorporate technology and other science tools. Safety is our number one priority for students and teachers. A safety instruction program can help to prevent/eliminate, and correct possible hazards. To ensure wellbeing in the lab, a safety contract has been developed. These rules must be followed at all times. A copy of the contract is provided for all students to read, acknowledge and sign. Please review and discuss the safety concerns with your students prior to boarding the Learning Lab. It is imperative the students understand the seriousness of safety. It is our intention to make science fun, without the expense of accidents in the lab setting. **No student will be allowed to participate in lab activities if a safety contract has been signed and returned.**

Safety Contract

I will:

1. Follow all instructions given by the instructor. *Wear safety goggles when instructed to do so during the lesson.*
2. Not eat, drink, or chew gum while on the science bus.
3. Report all accidents to a teacher immediately.
4. Behave in a manner to make sure I and my classmates are safe.
 - ❖ Throwing things, joking around, and playing around are not allowed.
5. Ask questions when I do not understand something.
6. Never taste or “sniff” chemicals.
7. Leave the learning lab neat and clean.
 - ❖ Keep aisles and work stations clean and free of clutter.
 - ❖ Return all materials and equipment when lab is completed.

Additional safety rules will be discussed during each lab period.

Remember: Safety is first!



What you can do to prepare students before the Fattah Learning Lab experience:

The Fattah Learning Lab (FLL) experience begins in your classroom. Each lesson has a coordinating pre-activity that can be done to refresh memories of students, serve as an entry into the lesson, or simply give an introduction to the lesson. Following the lab experience, you will be provided with extension activities for the class. To strengthen literacy skills, post-activities may have a writing component. FLL lessons can serve as an entry to a unity of study, enhance a thematic unit, or be utilized as culminating and ending activity to a unit.

The classroom teacher is **REQUIRED** to be present with their class on the mobile laboratory. The teacher is responsible for disciplining students and for helping students with the lab under FLL instructor guidance. It is expected that all students participating in FLL activities will behave in a mature and responsible manner. Any student who jeopardizes the safety or learning opportunity of other students will be asked to leave the mobile lab at the discretion of the FLL staff. Please review the safety contract with students prior to boarding the bus.

Once a class boards the bus, **there will be no visitors allowed**. Please inform the parents and others at your school that they can visit the Learning Lab before or after class periods only. We do not want to disrupt the lesson by opening and closing the door for visitors while a lesson is being conducted. We appreciate your attention to this request.

Addressing Pennsylvania State Standards:

To ensure students are working toward goals put forth by the PA Department of Education, each lab is aligned with the PA State Standards of Science and Technology, Mathematics, or Environmental Science. Labs are hands-on experiments performed individually or in groups of 2-5. Instruction aboard the Fattah Learning Lab aims to excite students about science and encourage students to consider a career in science. For further information about the standards addressed in each lab, please consult the teacher's helper overview sheets.



Dear Parents/Guardians:

This week, your child will have the opportunity to experience the Chaka Fattah Learning Lab. The Chaka Fattah Learning Lab is sponsored by the Educational Advancement Alliance, Inc. It is a state of the art science center that travels to Philadelphia schools to provide elementary and middle school students with a hands-on learning experience in science. The primary purpose of the Fattah Learning Lab is to provide Philadelphia students with an opportunity to perform lab experiments with the aid of technology and materials. The intention of the mobile science lab is to excite students about science and to encourage students to consider a career in science.

Students need to do science, not just read about it. The Fattah Learning Lab is a hands-on science laboratory. Your child will be doing activities that incorporate technology and other science tools. **Safety is our number one priority for students.** A safety contract has been provided and will be explained to students taking part in the learning lab experience. It is important that the students understand the seriousness of safety while having fun and learning. Please encourage your child to sign and return the safety contract, as he/she will not be able to participate in lab activities until it has been signed.

In addition, a consent form allowing EAA to photograph, film and/ or videotape your child is enclosed. Simply stated, it allows us to photograph, film or videotape your child's experience on the Learning Lab and to use the photo, video, or film. The photo, video or film will not be used for commercial purposes. This form must be signed by a parent or guardian and returned along with the Safety Contract.

Your child will be asked to complete a survey at the end of their experience on the Learning Lab. This survey questions are on the reverse side of this paper. It will be used to gauge your child's experience on the Learning Lab and as part of a graduate school dissertation on science.

Please acknowledge that you have read this document and give permission for your child to participate in activities on the Fattah Learning Lab.

The Fattah Learning Lab Team

I have read this document and give permission for my child _____ (Name)
to participate in activities on the Fattah Learning Lab. **Date** _____

Parents Name _____ **Parents Signature** _____

Chaka Fattah

Learning Lab

Science Skills on Wheels

Safety Contract

I will:

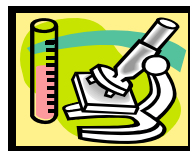
1. Follow all instructions given by the instructor. Wear safety goggles when instructed to do so during the lesson.
2. Not eat, drink, or chew gum while on the science bus.
3. Report all accidents to a teacher immediately.
4. Behave in a manner to make sure I and my classmates are safe.
 - ❖ Throwing things, joking around, and playing around are not allowed.
5. Ask questions when I do not understand something.
6. Never taste or “sniff” chemicals.
7. Leave the learning lab neat and clean.
 - ❖ Keep aisles and work stations clean and free of clutter.
 - ❖ Return all materials and equipment when the lab is completed.

Additional safety rules will be discussed during each lab period.

Remember: Safety is first!

I, _____ (your name), have read and agree to follow all of the safety rules set forth. I realize that I must obey these rules to ensure my own safety, and that of my fellow students and instructors. I will cooperate with my classmates and teachers to keep a safe lab environment. I am aware that any violation of this agreement may result in being removed from future labs.

_____ Student Signature



EDUCATIONAL ADVANCEMENT ALLIANCE, INC.
PHOTOGRAPH, FILM AND/OR VIDEOTAPE CONSENT FORM

The Educational Advancement Alliance, Inc. ("EAA") often photographs or films video for publicity purposes. These images may appear in any media, including but not limited to, our printed publications, our website, videotape, or in digital video form. EAA may also send them to the news media. Before taking any pictures, we need your permission. Please answer questions 1 and 2 below, read the release, sign and date the form where shown.

Please circle Yes or No

1. May we record your likeness and/or voice with still photography, films, and/or videotape, or those of your child(ren) if under 18, in material produced by EAA, including printed publications, videos and our website?

Yes / No

2. We regularly send publicity material about our services, including photographs where appropriate, to the news media, especially the local press. May we use your photograph, or your child's, in this way?

Yes / No

RELEASE

I (the undersigned) do hereby irrevocably grant to EAA, its officers, agents and employees the absolute right and permission to record my likeness and /or voice with still photography, film or videotape, to edit at its discretion such still photographs, film or videotape, to incorporate the same into photo exhibits, motion picture films and video presentations, to use or authorize the use of such still photographs, films, and/or videotapes, or any portion thereof, to copyright, use, reuse, publish, republish, exhibit, display, print, and reprint in advertising, publicity or promotional material.

I hereby waive any right to inspect or to approve the still photographs, films, and/or videotapes or the editorial or printed matter that may be used in conjunction therewith and further waive any claim that I may have with respect to their eventual use. Such still photographs, films, and/or videotapes may be used at EAAs sole discretion.

I hereby release, discharge, and agree to save harmless EAA from any and all claims, damages, liabilities, costs, and expenses that I now have or may hereafter have by reason of any use of the film, videotapes, and/or photographs.

I further expressly agree that the foregoing release is intended to be as broad and inclusive as is permitted by the law of the Commonwealth of Pennsylvania and that if any portion thereof is held invalid, it is agreed that the balance shall, notwithstanding, continue in full legal force and effect.

I have read this release, fully understand its terms, and understand that I am giving up substantial rights, including my right to sue. I acknowledge that I am signing the release freely and voluntarily, and intend by my signature to be a complete and unconditional release of all liability to the greatest extent allowed by law.

This form is valid in perpetuity from the date of signing.

Name of Parent/Guardian (if Minor): _____

Name of Child: _____

Signature of Parent/Guardian: _____ Date: _____

Address: _____

(City, State Zip Code)

In order to bring the excitement of the Fattah Learning Lab to your school, we must be provided with some information prior to arrival. FLL staff must be given at least one contact person at your school—an administrator or teacher.

Contact Name:	
School Name:	
Phone:	
Email:	

- ✓ Will this person be responsible for meeting FLL staff when the bus parks?
 Yes _____ No _____
- ✓ If no, please name an alternate. _____
- ✓ How many safety contracts will be needed? _____
- ✓ Although the FLL brings all necessary supplies for the lab experience, in the event a problem arises, the contact person will be the liaison between the school and the Fattah Learning Lab.
- ✓ We prefer to arrive 45 minutes to 1 hour before the first scheduled class to allow time to prepare for the day's activities.
- ✓ Please remember to notify office personnel of the arrival of the science bus, as FLL staff will sign in with your office upon arrival daily.
- ✓ During snowy/icy/inclement weather, please make sure a walkway is cleared for students and teachers to board the bus.



Class List Form

Name of Student	Safety Contract Returned (Yes or No)	Permission to Photograph (Yes or No)	Conditions Fattah Learning Lab Staff must be made aware of
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
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10.			
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22.			
23.			
24.			
25.			
26.			
27.			
28.			
29.			
30.			

Name of Teacher: _____

Classroom #: _____

Date of Session: _____

Time of Session: _____

Preparing for Your Mobile Science Experience

	Date:
The Fattah Learning Lab will visit the school	
Distribute safety contract to students	
Distribute photo consent forms to students	
Parking map to be returned	
Class List form returned to EAA	
School Contact Information Form to be returned	
Teacher Survey to be returned	
Student Survey to be returned	

Paperwork can be returned to FLL staff by email, fax, mail, or in person.



Fattah Learning Lab Parking Map

Directions: Please draw a map of your school along with major roads and landmarks that will help the bus driver deliver the science mobile to its correct location. The space needs to be on a hard, **level** surface.

School: _____

Address: _____

- The Fattah Learning Lab **CAN NOT** be moved by anyone other than the authorized FLL bus driver.
- The Fattah Learning Lab must be parked on **level ground** and cannot be parked in a fire zone.
- If the parking spot chosen by the school is deemed inappropriate, the FLL bus driver reserves the right to select another parking spot.
- How to ensure the science mobile is parked in the correct spot:
 - Display a sign saying “Mobile Science Lab Park Here.”
 - Put safety cones around the parking spot.
 - Mark the area with tape.

Currently FLL can accommodate up to **20** students comfortably.

- ☑ Due to time constraints FLL will only be able to offer **two different** labs per day. There must be time to breakdown and set up each lab, therefore only one type of lab can be done prior to a free period or lunch break and one type of lab done after a free period or lunch break.
- ☑ **Each lab will be 1 hour.** Forty-five (45) minutes for instruction and 15 minutes for the students to exit the bus and time for the FLL instructor to set up the next lesson.
- ☑ To ensure adequate time for set up for each lab, FLL may limit the number of sessions to no more than 5 per day; however 4 is preferred.

Complete the following schedule with time of session and classroom number.

	Monday	Tuesday	Wednesday	Thursday
Time				

Time first session will begin: _____

Time last session will end: _____





Chaka Fattah
Learning Lab
Science Skills on Wheels

Fact Sheet

- The Fattah Learning Lab is designed to provide a hands-on learning experience to schools, recreations centers and libraries
- Designed to promote a foundation and improved knowledge base in Science, Technology, Engineering and Math (STEM)
- Accommodates 20 students
- Target audience is grades 4 -6
- Schools visited:
 - F. S. Edmonds Elementary
 - Samuel Gompers Elementary
 - Bryant Elementary
 - A. B. Day Elementary
 - Powel Elementary
 - Ardmore Avenue Elementary
 - Tilden Middle School
 - WPACES
 - Dr. Ethel Allen Elementary
 - James Rhoads Elementary
 - Eleanor Emlen Elementary
 - Joseph Leidy Elementary
 - J.S. Jenks Elementary
- A total of 100 teachers / classrooms have visited the Learning Lab.
- Over 4,000 students have experienced hands-on learning since January 31, 2005.
- Participated in NASA Exploration Day at Cheyney University, PA
- Participated in Science in the Summer with The Free Library of Philadelphia and GlaxoSmithKline
- Presented: The Science Lab of Grand Hank assembly programs
- Learning Lab staff attended the Sally Ride Festival at West Chester University, PA
- A total of 12 content areas are offered to schools: Density, Environment, Life Science, Math, Chemistry, Physics, Electricity, etc.
- Themed weeks are offered to schools in addition to the current curriculum.
 - Space Week
 - Environmental Studies Week
 - Forensics Week
 - Fingerprinting, Blood Typing
 - Physical Science Week
 - Food Chemistry

To ensure quality Fattah Learning Lab experiences, your feedback is necessary. Please respond to the following statements utilizing responses which most honestly and clearly represent your experience with the Fattah Learning Lab.

Strongly Agree=SA; Agree=A; Neutral=N; Disagree=D; Strongly Disagree=SD

I. Learner-Centered Instruction

Learning objectives are stated or implied; include knowledge, skills, concepts	SA	A	N	D	SD
Instruction relates to interest and varied characteristics of students	SA	A	N	D	SD
Students learned at a high cognitive level	SA	A	N	D	SD
Motivational techniques are utilized	SA	A	N	D	SD
Questioning and inquiry methods are used to challenge students	SA	A	N	D	SD

II. Instructional Environment

Mobile classroom environment promotes self-discipline	SA	A	N	D	SD
Instructor interacts with students equitably	SA	A	N	D	SD
Mobile lab was student friendly	SA	A	N	D	SD
The value and importance of content/activity was emphasized	SA	A	N	D	SD
Lesson was paced / sequenced appropriately for students	SA	A	N	D	SD

III. Student Participation

Students were enthusiastic about the lesson	SA	A	N	D	SD
Students were actively engaged in learning	SA	A	N	D	SD
Students were successful in learning	SA	A	N	D	SD
Students were encouraged to ask questions	SA	A	N	D	SD
Students did not fully understand concepts presented	SA	A	N	D	SD
Students returned to classroom with motivating questions	SA	A	N	D	SD

IV. Technological Approaches

Technology on the bus is not available in my classroom	SA	A	N	D	SD
Equipment used by students was effectively introduced	SA	A	N	D	SD

Sharing your experiences and letting us know what we can improve will help EAA to make program improvements. We appreciate you taking the time to complete this evaluation.

Comments:



New for the '06-'07 School Year

The students will delight in boarding the Fattah Learning Lab for a week to explore one central theme. We have added three new themed weeks for this school year. They are marked with an asterisks:

- Space Week
- Environmental Studies
- *Weather Week
- *A Scientific Study of Africa
- *All About Me Week
-

Each unit will offer four to six different activities that cover:

- Chemistry
- Physics
- Biology
- Technology



FLL lesson plans will continue to be content specific. Each laboratory addresses PA Standards and are cross-curricular.