

DISCOVER

DoD

STARBASE

A Department of Defense Youth Program

TODAY

STARBASE 184

The start for STARBASE Kansas

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LOOKING AT STARBASE THEN & NOW

STARBASE 184:

The Start for STARBASE Kansas

While the original STARBASE program started in Michigan, there were others around the country that immediately noted the importance of the mission to ensure America's youth had the appropriate education in Math and Science. The Kansas STARBASE program is clearly among those innovative founders.

As one of the original STARBASE locations to start under the 1993 funding authorization, the Kansas STARBASE program, which started in Wichita, has now grown to one of the largest in the country, including five sites around the state.

The Kansas program got its start as a summer program after Lt Col. (ret) Frank Garver met Barbara Koscak at a conference where she was presenting on the Michigan STARS program. Garver met with Koscak and brought the idea back to Lt Col. Todd Bunting, and together they were able to start up a summer program for National Guard dependents. That first summer program, called STARBASE 184, meet for two one-week sessions in the summer of 1992.

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HISTORY



With a staff of extremely dedicated teachers and guardsman, who weren't sure if funding would even be available past the first year, they developed a program that utilized the high-tech equipment available at their National Guard base. Alongside the Math and Science focus of the program, like most STARBASE programs, Kansas's program in the early days also spent time on the Drug Demand Reduction, or DDR, mission of the Army and Air National Guard.

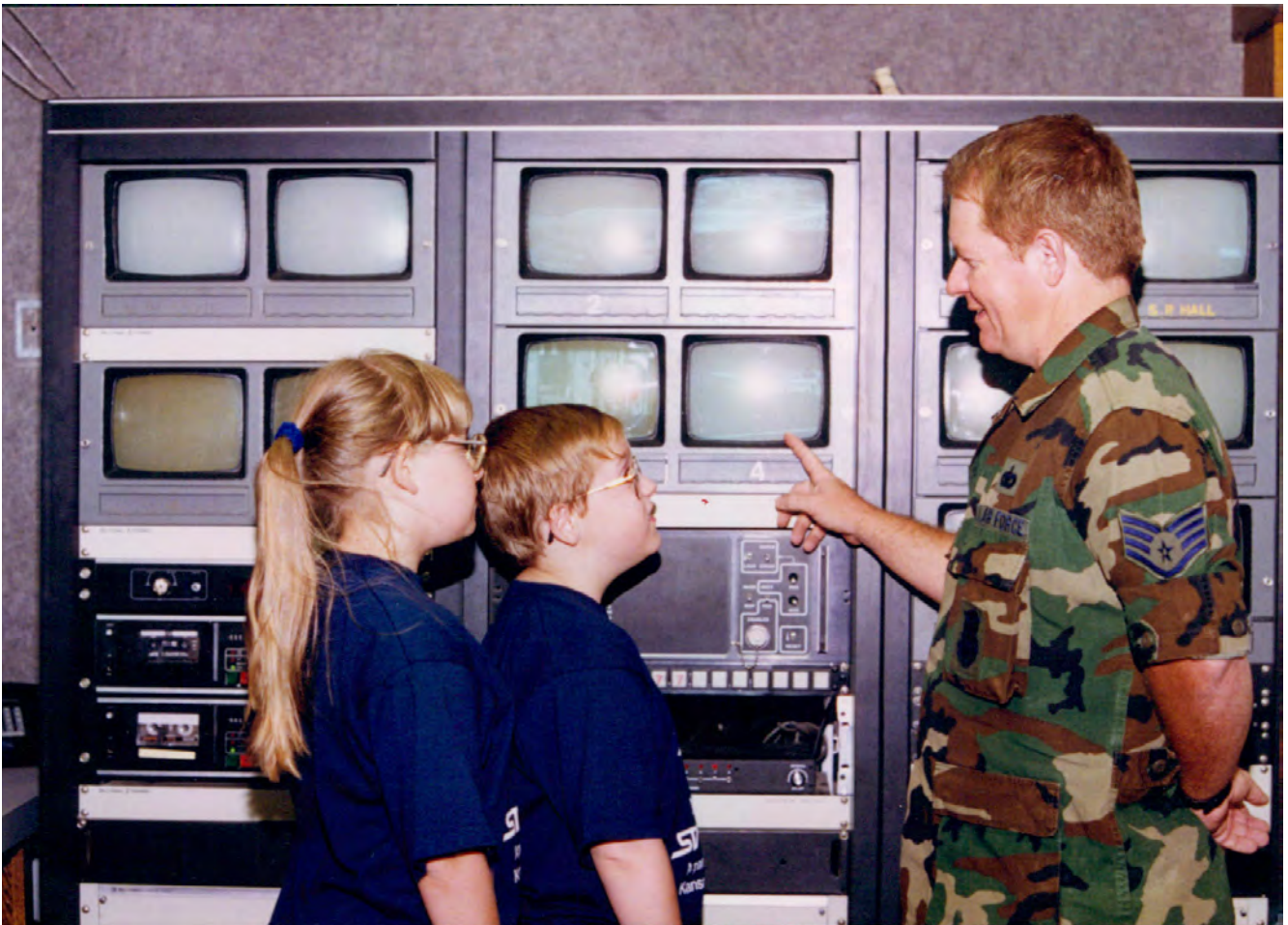


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HISTORY

Those initial efforts to start creating opportunities for students to have STEM education experiences are what helped secure Kansas's spot in the initial 1993 appropriation. With that funding, STARBASE Kansas was started at the 184th Intelligence Wing Air National Guard Base in Wichita under director Pat Risely. Shortly after, in 1994, another site was added in Topeka at the 190th Refueling Wing.


Since then, the Kansas STARBASE program has only grown, and under the leadership of Jeff Gabriel, who took over directing the programs in 2000, Kansas now has sites in Wichita, Topeka, Salina, Kansas City, and the newest program opened in 2012 in Manhattan.



THE ANATOMY OF A LESSON PLAN

What you can expect from the new look for curriculum!*

PAGE 1



E 3.1.1.1. Physics: A. Newton's Three Laws of Motion

Appendix A: Newton Launcher

Abstract

This activity presents students the opportunity to investigate Newton's Second Law by conducting a series of trials using spheres of different masses and a photogate to measure acceleration. Conducting these different trials will allow students to recognize the relationships between force and mass.

Time: 30 Minutes

Objectives: Physics: A. Newton's Three Laws of Motion

1. The learner will recognize examples of Newton's Laws in the physical world.
2. The learner will demonstrate that an object in motion or at rest will stay in motion or at rest unless acted upon by an outside force. (*First Law*)
3. The learner will predict and determine the acceleration of an object when given the variables of mass and force. (*Second Law*)
4. The learner will conclude every action is followed by a reaction equal in magnitude and opposite in direction. (*Third Law*)

Lesson Plan	Appendices	Objectives Met			
		1	2	3	4
Introduction to Newton's Second Law*	Appendix A: Newton Launcher	●		●	
	Appendix B: Trebuchet	●		●	
	Appendix C: Impact Cars	●		●	

* Complete the parent lesson and at least one of the appendices listed.

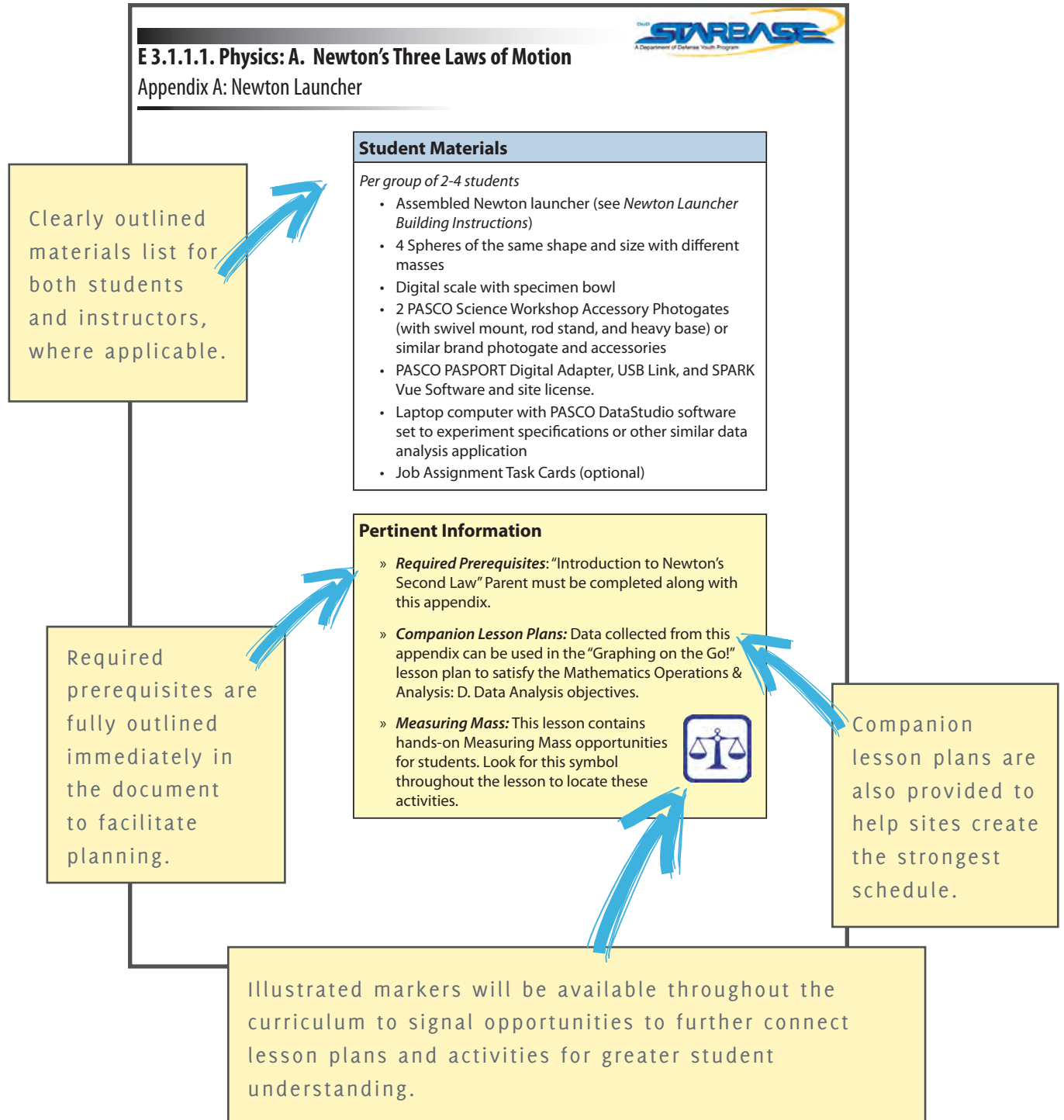
A visual representation of the hierarchy of the lesson plans that demonstrates how they work together and which objectives are met by each component. This should facilitate a better understanding of the appendix choices available for a particular parent lesson.

One specific title for each document.

An abstract that provides a brief overview about the focus of the lesson.

A numbered list of all the core objectives of this curriculum area.

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Please note that curriculum will be presented in this new format as revisions are completed of currently published lesson plans. In addition, as curriculum is updated on www.dodstarbase.org, a "Last Updated" date will be included to help eliminate version control concerns.

GROWING UP WITH STARBASE

Elisha Williams and STARBASE Oklahoma

Elisha Williams is twelve years old and first participated in STARBASE program with his fifth grade class from Tulsa Public School Barnard Elementary. He went on to become a member of the sixth grade STARBASE 2.0 After School STEM Mentoring Program at Hamilton Elementary this past school year. As a capstone STARBASE 2.0 experience, Elisha also participated in the Radio Control Planes Camp at Tulsa Air and Space Museum (TASM) this summer in Tulsa, Oklahoma, with other 2.0 students.

As an outstanding member of the 2.0 After School STEM Mentoring Program, Elisha was chosen to be a member of Leadership Camp at the museum. He also was a junior counselor at two additional camps at the museum because of his patience and easy going manner. The other camps were basic rocketry and robotics. Elisha's favorite camp was the Radio Control Planes Camp.

Elisha said he learned in Leadership Camp to work on his own problems and also to assist others. He put his leadership skills to use in the Radio Control Planes Camp by setting a



STARBASE STUDENT SUCCESS

good example and warned another camper to be careful with the fragile radio control plane as the student was walking too close to a building. Elisha is one of six children, and his interactions with his siblings illustrate that he is a respectful and thoughtful leader.

Elisha's father is concerned about the future education his children are receiving in school. He has high expectations of Elisha and his other children. Mr. Williams said, "STARBASE's 2.0 is a very good program. It should be expanded and offered to more children. It gives them an opportunity for character building and gives them a head start in science and engineering. It really influences their life. It is a well-rounded, positive program."



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This past year, STARBASE 2.0 at Hamilton competed as a team in First LEGO League in the fall semester. In the spring semester, their Science, Technology, Engineering, and Math project was CO₂ Dragsters. When Elisha was asked what he liked best about the STARBASE 2.0 projects, he explained that he liked the engineering part of the First LEGO League when he helped program the robot for competition. Elisha said, "I like engineering most because I like fixing cars, model airplanes, and rebuilding and redesigning new things from a variety of parts."

So, what's next for Elisha? This upcoming school year, he will be attending the Knowledge Is Power Program (KIPP), a STEM-focused charter school in Tulsa. For the future, with the STEM enrichment of DoD STARBASE to encourage him, maybe Elisha will solve mysteries in the ocean, design the next generation of airplanes, or wave to us from Mars one day. With his strong start in the STARBASE programs, his STEM adventures are just beginning!

SEEKING STARBASE ALUMNI

To commemorate the 20th anniversary of the DoD STARBASE Program, we are looking for STARBASE graduates who have gone on to STEM careers, hopefully in part from the influence of their STARBASE experience. We are happy to showcase any STARBASE alumni, but we are especially interested in finding graduates from the original 1993/94 classes. Please send any information about a STARBASE alumnus to Ernie Gonzales, at ernie.gonzales@osd.mil.

SUPPORTING STARBASE

Wyoming Governor proclaims November 1st “Wyoming STARBASE Academy” Day

Wyoming Governor, Matt Mead, signed a proclamation on Oct. 31, 2012, naming Nov. 1 as “Wyoming STARBASE Academy” Day. In attendance, for the signing were Wyoming Military Department Deputy Director Doug Shope, Command Sgt. Maj. Tom Allan, Brig. Gen. Steve Mount, Maj. Gen. Luke Reiner, STARBASE Director Barb (Tree) Marquer, Deputy Director Peggy (Bluebird) Nicholls, STARBASE Instructor Cathy (Cyclone) Mirich, and Chief Master Sgt. Doug Hensala.

Shortly after, STARBASE WY celebrated the opening of their new and improved facility and the rededication of the STARBASE Maxwell program at the Maxwell AFB facility.

Congratulations STARBASE Wyoming on this wonderful recognition of the work you do!

