

PLTW Gateway

PLTW



PLTW Curriculum

PLTW LAUNCH



PreK-5

42 modules
~12-14 hours each

Life Sci / Physical Sci / Earth & Space / BMS / CS / ENG

PLTW GATEWAY



6-8

10 units
~36-45 hours each
BMS / CS / ENG focus

9-12



PLTW BIOMEDICAL SCIENCE

9-12



PLTW COMPUTER SCIENCE

9-12

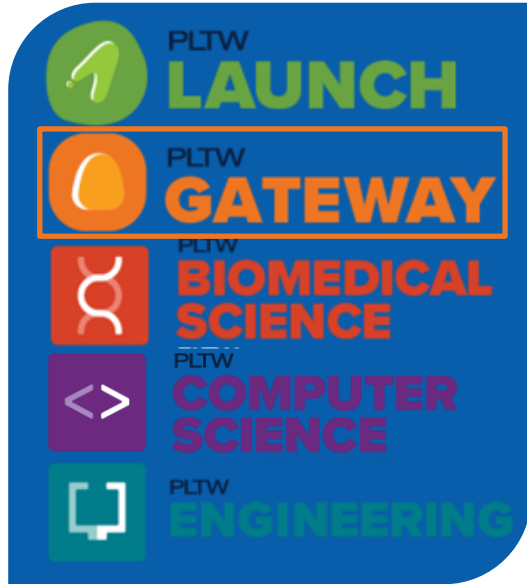


PLTW ENGINEERING

10 high school courses
~160-180 days each

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Middle School STEM Learning



An Evidence-based Solution for Middle School Students. With PLTW Gateway you can:


- Create career confidence by exposing your students to the wealth of in-demand opportunities awaiting them.
- Inspire students to work together, solve problems, and persevere in a vibrant, dynamic environment.
- Foster interaction and social emotional learning for all students, especially underrepresented and female students.

Read PLTW Gateway Evidence Paper



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-  Biomedical Science Pathway
-  Computer Science Pathway
-  Engineering Pathway





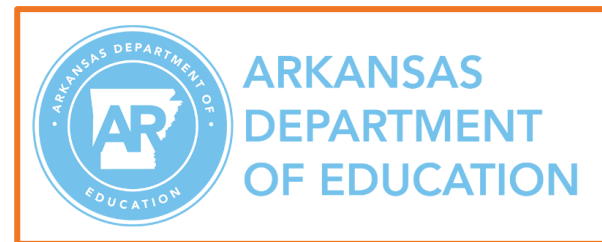
Biomedical Science Pathway



Computer Science Pathway



Engineering Pathway



These four units are eligible for the Arkansas Department of Education grant.

Vertical Pathway Alignment

Flexible Implementation

In-Demand Skills

*Critical and Creative Problem Solving
Ethical Reasoning and Mindset
Communication
Collaboration*

Integration of **Math**



PLTW

GATEWAY

**Career Awareness
and Exploration**

Integration of **ELA**

Spanish & English Versions

Supports

Practices found throughout STEM Fields

Problem-Based Approach

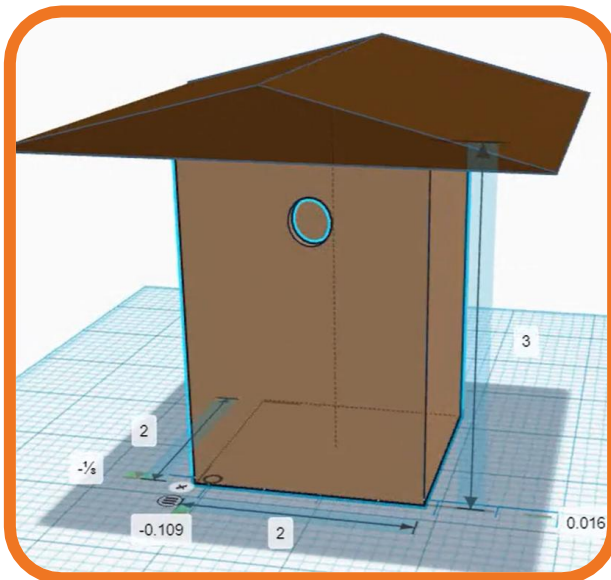
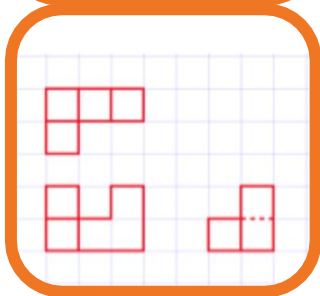
Activity-, Project-, and
Problem-Based Learning



PLTW



Design & Modeling - Examples



Child Profile 5

Zach



Zach is a seven-year-old boy who loves to be active and play outside with friends. He also enjoys building things with his brother and making crafts with his mom. His favorite color is blue, and his favorite food is hamburgers.

Therapeutic Goal: Improve hand-eye coordination

Occupational Therapy

In occupational therapy, Zach is working on activities that focus on his visual motor skills to improve his hand-eye coordination. Hand-eye coordination allows the eyes to track the movement of the hands. Naturally, it plays a role in balance and manipulating handheld objects with precision.



Tools for Toys

Occupational therapists often use common, everyday toys when working with their clients. Review the list of toys below to learn how toys for kids Zach's age can be used to improve hand-eye coordination.

Note: You may use this list as a guide to think of a toy that can help Zach achieve his therapeutic goal.

Toy	Image	How This Toy Improves Hand-Eye Coordination
Signposts		Children can hold the wooden post in the air or on the signposts, identify the matching wooden color. Placing the signposts on the floor to make the movement of the hands and to coordinate the hands and feet.
Ring Toss		Children can throw the wooden ring onto the wooden post. The child can use the wooden ring to throw the ring onto the wooden post. The child can use the wooden ring to throw the ring onto the wooden post.
Building Blocks		Children can stack the wooden blocks on top of each other. Placing the wooden blocks on the floor to make the movement of the hands and to coordinate the hands and feet.
House Toys		Children can place the wooden blocks on top of each other. Placing the wooden blocks on the floor to make the movement of the hands and to coordinate the hands and feet.
Red Toy		Children can place the wooden blocks on top of each other. Placing the wooden blocks on the floor to make the movement of the hands and to coordinate the hands and feet.

Activities



CAREER CONNECTIONS

ACTIVITY 1.2

A PICTURE IS WORTH A THOUSAND WORDS

Project(s)



CAREER CONNECTIONS

PROJECT 2.3

IT'S FOR THE BIRDS

Problem

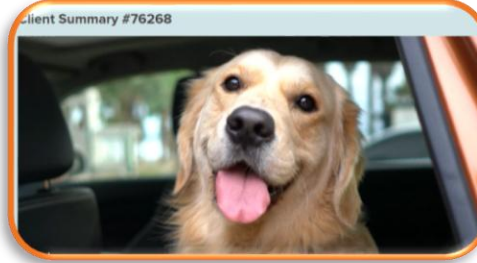
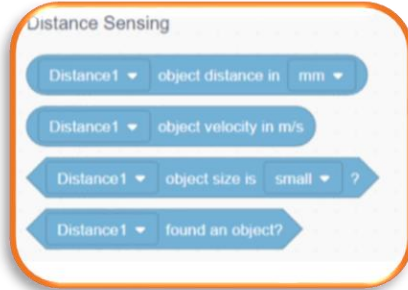
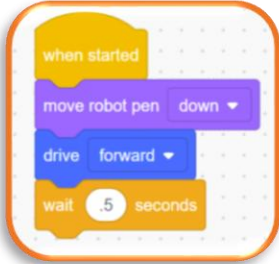


CAREER CONNECTIONS

PROBLEM 3.1

THERAPEUTIC TOY DESIGN

Automation & Robotics - Examples



Activities



**CAREER
CONNECTIONS**

ACTIVITY 2.1 & 2.2
Makes Sense; Distance Sensing

Project(s)



**CAREER
CONNECTIONS**

PROJECT 2.5
Client Summaries

Problem

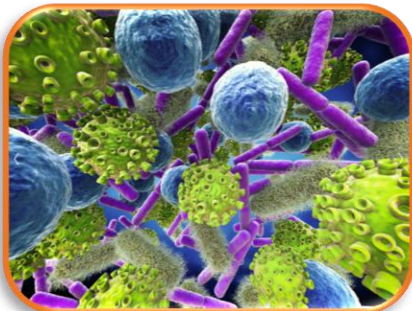


**CAREER
CONNECTIONS**

PROBLEM 3.1
Internship Showcase



Medical Detectives - Examples



Lesson Reflection

1. A man who's been battling lung cancer for the last three months is now experiencing personality changes and memory problems. Describe some of the different professionals who might be needed to diagnose and treat this man.
2. Which sources of evidence provided you with key information that led to a diagnosis and why?
3. What is important to consider and what information is important to include when creating educational material for patients and their families?

Patient Sample Testing Guide

MATERIALS

- Personal protective equipment (lab aprons, safety goggles, and gloves)
- Permanent marker
- Toothpicks
- Well plate
- 10 Patient Samples (Persons 1-10)
- Test Reagent for Toxin 1
- Test Reagent for Toxin 2
- Test Reagent for Toxin 3
- Positive Control Sample for Toxin 1
- Negative Control Sample for Toxin 1
- Positive Control Sample for Toxin 2
- Negative Control Sample for Toxin 2
- Positive Control Sample for Toxin 3
- Negative Control Sample for Toxin 3

Activities



**CAREER
CONNECTIONS**

ACTIVITY 1.1

Vital Signs as Medical Evidence; Disease Agents

Project(s)



**CAREER
CONNECTIONS**

PROJECT 2.5 Mystery Disease

Problem



**CAREER
CONNECTIONS**

PROBLEM 2.2 Disease Detectives



Flight & Space- Examples



Figure 5. Force of Thrust



Figure 6. Force of Drag

Newton's Second Law

Acceleration is produced when a force acts on an object. The greater the **mass** of the object, the greater the amount of force needed to accelerate the object.

The force acting on an object is equal to the mass of the object multiplied by its acceleration.

$$\text{Force (F)} = \text{Mass (m)} \times \text{Acceleration (a)}$$



PLTW Space Explorers

A space company, MarsToo, is making preparations to send the first manned mission to Mars. A few unmanned trips have been successful in delivering **landers** and **rovers**, but it is time to safely land the first humans on the red planet. MarsToo needs to develop a plan that provides a way to travel to, and on, and live on Mars.

Activities



**CAREER
CONNECTIONS**

ACTIVITY 1.2
FORCES OF FLIGHT

Project(s)



**CAREER
CONNECTIONS**

PROJECT 1.7
CLEARED FOR TAKEOFF

Problem



**CAREER
CONNECTIONS**

PROBLEM 3.1 Mission to Mars

Arkansas Department of Education Grant Details

PLTW





ARKANSAS
DEPARTMENT
OF EDUCATION

[Direct link to RFA](#)
[Direct Link to Application](#)

** You must apply directly with ADE for this grant. Do not send your ADE Grant application to PLTW.*

Jason G. Bailey M. Ed, PLTW Grant Coordinator

Jason.Bailey@ade.arkansas.gov

Division of Learning Services

3 Capitol Mall Room 303

Little Rock, Arkansas 72201



ARKANSAS
DEPARTMENT
OF EDUCATION

Apply today for this outstanding ADE grant opportunity for middle schools!

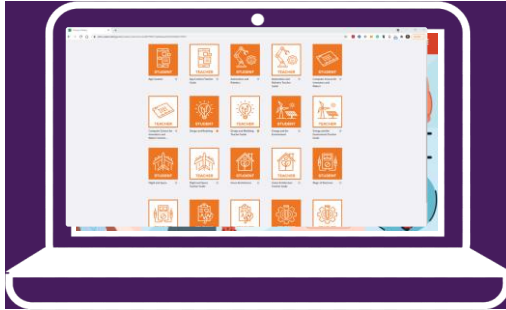
Opportunity Information

The Arkansas Division of Elementary and Secondary Education (DESE) has been awarded a \$2.98 million grant from the Walton Family Foundation to increase student interest and engagement in science, technology, engineering, and mathematics (STEM) by providing middle school students access to high-quality STEM curriculum that supports hands-on, real-world learning from PLTW. **March 14, 2025, is the application deadline** for this grant to *fully implement* a PLTW Gateway program in your school regardless of school size or locale next school year.

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PLTW Investment Categories

PLTW programs vary in cost, but each program includes investments in three categories:



ANNUAL PARTICIPATION FEE

The annual participation fee covers required software rights, program support features to the curriculum for which a school has trained teachers, as well as the associated support systems such as end of course assessments.



PROFESSIONAL DEVELOPMENT

PLTW Core Training incorporates authentic, meaningful, and best-in-class online facilitation practices that ensure the quality delivery of course content.



EQUIPMENT AND SUPPLIES

Equipment and supplies are unique program and curricular requirements necessary for PLTW program implementation and can be purchased through the PLTW store.

Training Options

“

“This **training was awesome** in the sense you literally walk through almost every single activity, project, and problem. It has **100% prepared** me to teach this in a school setting, whether it be virtually or in-person.”

— PLTW Core Training Participant



PLTW Core Training

1 participant seat

Flexible virtual options



App Creators, Automation and Robotics,
CS for Innovators and Makers,
Design and Modeling, Flight and Space,
Medical Detectives

40 hours per course
\$1,200 per seat



Energy and the Environment,
Green Architecture
Magic of Electrons,
Science of Technology

24 hours per course
\$750 per seat

DISTRICT TRANSFORMATION TRAINING

District training is available for up to 30 staff members at a reduced rate.

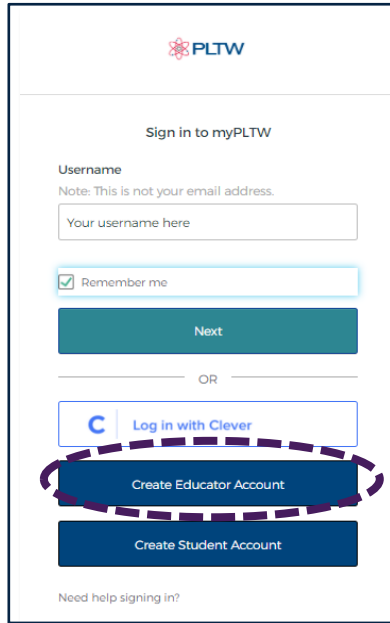
How to Apply for a PLTW Partner Grant (Non-ADE)

**Note that PLTW grants are separate from the ADE grant mentioned on slide 13. We strongly encourage you to apply for BOTH. Please do not send your ADE application to PLTW.*

PLTW



Begin with a myPLTW Account



PLTW

Sign in to myPLTW

Username


Note: This is not your email address.

Your username here

☒ Remember me

Next

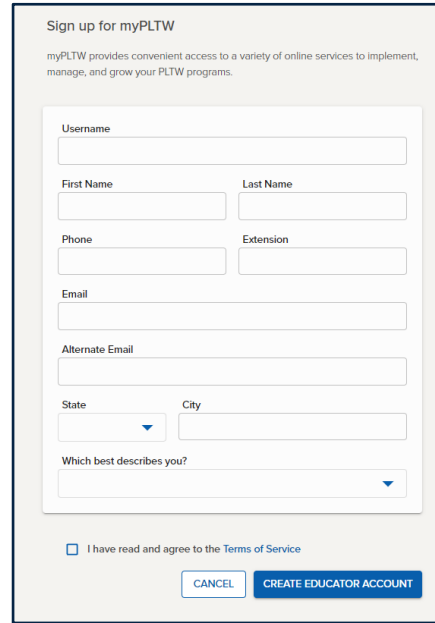
OR

 Log in with Clever

Create Educator Account

Create Student Account

Need help signing in?



Sign up for myPLTW

myPLTW provides convenient access to a variety of online services to implement, manage, and grow your PLTW programs.

Username

First Name Last Name

Phone Extension

Email

Alternate Email

State City

Which best describes you?

☐ I have read and agree to the [Terms of Service](#)

CANCEL CREATE EDUCATOR ACCOUNT

1. Visit mypltw.org.
2. Click **Create Educator Account**.
3. Complete all form fields.
4. Read the terms of service and click the “I have read and agree to the terms of service” check box.
5. Click **Create your Account**.
6. Verify your email and login to myPLTW.

Welcome back, **Sandy!**



Courses



Professional Development



Store



Community



Grants



Program Recognition



Help

PLTW

How to Apply for a Grant

Welcome back, **Sandy!**



Courses



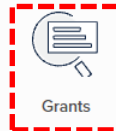
Professional Development



Store



Community



Grants



Program Recognition



Help

My Grants

Awarded Grants 12

Applications 1

Program Filter

All Programs

- PLTW Launch
- PLTW Gateway
- PLTW Computer Science
- PLTW Engineering
- PLTW Biomedical Science

Status Filter

All Statuses

- ☐ Submitted
- ☐ In Progress
- ☐ Expired

Applications

2021-2022

PLTW High School

PLTW Computer Science (9-12)

In Progress

Last Updated: 10/04/2021 by null null

VIEW AND UPDATE

Remove Application

START AN APPLICATION

Search for an application

1. Select the Grants icon
2. Click “Start an Application”

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How to Apply Cont...

The screenshot displays the 'My Grants' application interface. On the left, there is a 'Program Filter' sidebar with 'All Programs' (PLTW Launch, PLTW Gateway, PLTW Computer Science, PLTW Engineering, PLTW Biomedical Science) and 'Status Filter' (Submitted, In Progress, Expired). The main area is titled 'Applications' and features a 'START AN APPLICATION' button. A 'Create New Application' dialog box is open in the center, highlighted with an orange dashed border. The dialog contains the following text and fields:

- Create New Application** (Title)
- What site do you wish to apply for?
PLTW High School (Dropdown menu)
- Don't see your location?
The PLTW grant application is site- and program-specific. Each site can complete an application for any program that it wishes to expand or implement with grant support.
- For which PLTW program are you seeking to receive grant support through this application?
PLTW Engineering (9-12) (Dropdown menu)
- CANCEL (Button)
- START APPLICATION (Button)

3. Select site from drop down (if you don't see your school click **“Don't see your location?”**)
4. Select PLTW Gateway (6-8) program from the drop down
5. Click Start Application

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Tips for Your Grant Application

PLTW



Readiness

Organizationally ready to execute a well-thought out and feasible program.

Share how your school has prepared to implement or expand your PLTW programs next school year.

Describe the current role of the individual(s) who will teach PLTW next year and why they were selected.

What is your plan for scheduling PLTW into the school day?

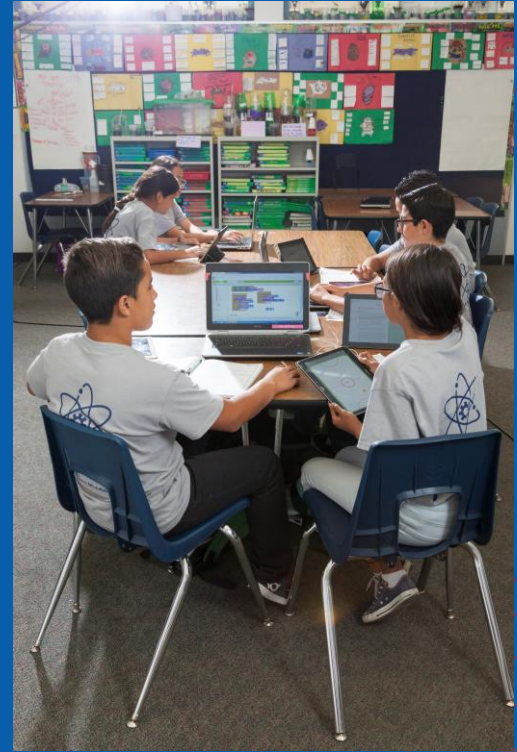


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Support

Supportive leaders who are involved in the plan to implement and sustain your PLTW program.

Provide a narrative of the involvement and support of district/school administrators and teachers during your school's planning activities for PLTW next year.



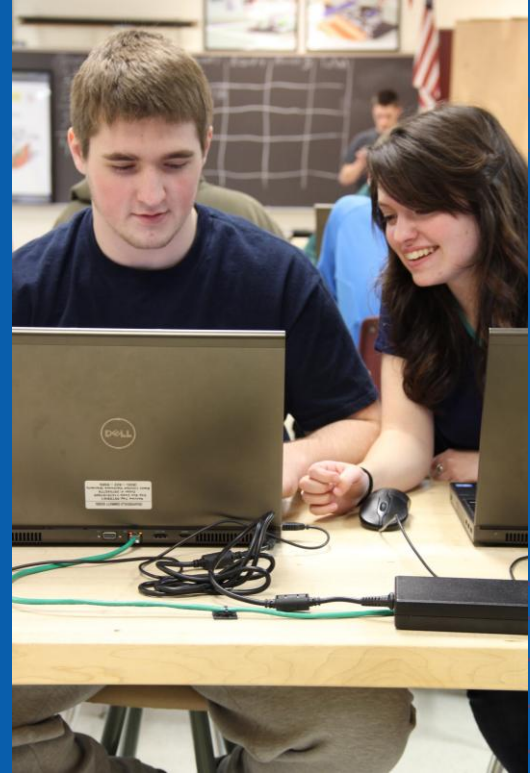
Access

Seeks to impact the population the grant partner cares about.

Describe the student population that this program serves. (Be specific about demographics such as age, gender, ethnicity, and geographic locations.).

Will all students be required to take at least one PLTW course at some point during their years enrolled at your school? If not required, please describe in detail your school's plan to drive student enrollment in PLTW.

Describe how you will engage traditionally underrepresented populations.



PLTW

Impact and Evaluation

Clearly state impact goals that can be evaluated to determine success

Share your vision for PLTW programs in your school, including course offerings, student and teacher engagement, community involvement, and the overall impact you expect the programs to have.

How will success be defined?



Sustainability

Financially and organizationally sustainable after the grant period for the short and long-term

How will your program continue after the grant period?

How do you plan to financially support your PLTW program after the grant period ends?





Q&A

PLTW

Contact us!

Chris Oonk,
Director of New District
Engagement
coonk@pltw.org
864-710-1337



Mary W. Arrasmith,
Director of School Success
marrasmith@pltw.org
225-955-7363

