



# Texas 4-H

# CHAMPION SCHOOL

## Suggested Curriculum

The Texas 4-H Champion School Program is a partnership between local school districts and the Texas A&M AgriLife Extension Service's 4-H Youth Development Program. This partnership is designed to improve the lives of young Texans and their families via experiential learning in a school setting. The goal of the Texas 4-H Champion School Program goes beyond the classroom through development of school-based 4-H clubs where life skills such as responsibility, public speaking, career investigation, and healthy habits are developed. These skills empower youth to become the leaders of tomorrow!

For the Texas 4-H Champion School Program to offer the greatest benefit, the following pre-approved curriculum are suggested for use. Additionally, schools may work with Texas A&M AgriLife staff to customize programs to better meet the needs of students, staff, and communities.

### TEACHER RESPONSIBILITIES

- Contact local county Extension office for materials and/or assistance
- Participate in any necessary training associated with the program.
- Complete and return any required forms or evaluations
- Make learning fun!!

### AGENT RESPONSIBILITIES

- Provide teachers with curriculum access information
- Provide any necessary training for select curriculum
- Provide and/or recruit additional persons to assist with program implementation if needed
- Provide curriculum and/or evaluation forms for the program
- Make learning fun!!

**01**

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 Agriculture  
 & Livestock

**02**

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 Family &  
 Community Health

**03**

.....  
 Natural  
 Resources

**04**

.....  
 Leadership  
 & Citizenship

**05**

.....  
 Science Technology  
 Engineering & Math

# AGRICULTURE & LIVESTOCK

## 01.

### **Texas 4-H Explore Guides | Grades 3-12 | <https://texas4-h.tamu.edu/resources/>**

Texas 4-H Explore Guides offer interactive lessons and activities which allow students to learn more about a specific subject matter. Suggested Texas 4-H Explore Guides for agriculture & livestock include:

- Ag Product Identification | Texas 4-H Agriculture Product Identification

### **JMG Junior Master Gardener: Level 1 | Grades 3-5 | <http://jmgkids.us/curriculum/>**

This curriculum gives teachers the resources to teach students about the wonderful world of gardening. Its eight chapters offer hands-on learning experiences for youths. Also included are activity pages, worksheets, rhythms, and reading passages formatted for standardized tests. After studying life skills and careers, students may culminate their learning experience with service activities. This curriculum is designed for students in grades 3-5 and is complemented by the JMG Level 1 Handbook which contains fun activities and interesting facts to help children experience the joy of making things grow.

### **JMG Golden Ray Series - Literature in the Garden | Grades 3-5 | <http://jmgkids.us/curriculum/>**

This curriculum seeks to engage children through powerful garden- and ecology-themed children's books. It uses six books to inspire learning through outdoor activities, creative expression and open exploration. Dozens of hands-on activities encourage leadership development, individual responsibility, community involvement, and the development of critical thinking skills.

### **JMG Golden Ray Series - Wildlife Gardener | Grades 3-5 | <http://jmgkids.us/curriculum/>**

The National Wildlife Federation and the Junior Master Gardener program have joined forces to create an engaging learning opportunity for children. The Wildlife Gardeners curriculum will help children to gain a greater understanding and strengthen appreciation for the wildlife that is part of their local community. They will enjoy novel, hands-on project-based learning as they have fun gardening for wildlife. Students will learn how to build the components of a wildlife garden habitat. The program culminates in a community service project, as the students develop a site recognized by the NWF as a Certified Schoolyard Habitat.

### **JMG Level 2: Operation Thistle - Seeds of Despair | Grades 6-8 | <http://jmgkids.us/curriculum/>**

This level 2 curriculum for the Junior Master Gardener program combines the teacher/leader guide with reproducible pages for young participants. Through dozens of exciting and fun activities, students can investigate plant growth and development, take part in service learning projects, and earn certification--all while undertaking an urgent mission to defeat Dr. Thistle!

### **JMG Level 2: Operation W.A.T.E.R.: Dr. Thistle Goes Underground | Grades 6-8 | <http://jmgkids.us/curriculum/>**

While following the continuing saga of the evil Dr. Thistle and his plot to rule the earth's ecosystems, students in grades 6-8 can learn important lessons on soils and water. Topics in this book include soil color, texture and structure; soil nutrients; soil improvement; soil conservation; the water cycle; aquifers, watersheds and wetlands; water movement; and water conservation. Each of the eight chapters contains three hands-on activities to reinforce the concepts covered. Also included is a section on service learning and career exploration projects connected to soil and water.

### **Learn, Grow, Eat, & Go! | Grade 3 | <http://jmgkids.us/curriculum/>**

Created by teachers, this multifaceted garden, nutrition, and physical activities curriculum is evidence-based and academically rich. Through a linear set of hands-on, proven lessons, your students will better understand plants and how plants provide for people's needs. The 10-week (2 lessons/week) unit of study will step your class through process of establishing a thriving garden that is easy to create and maintain. The curriculum features opportunities for fresh vegetable tasting/evaluation, simple recipe demos, and physical activities that research shows can improve on-task behavior and academic performance.

### **Path to the Plate Youth Expo | Grades K-12 | <https://pathtotheplate.tamu.edu/>**

Path to the Plate Youth Expos are events planned and coordinated by county Extension personnel and other partners to expose youth to the world of agriculture and how it impacts everyday life, especially health. Educational stations are set up for students to rotate through. These stations provide education on agriculture production systems, processes, by-products, and health benefits of various crops and animal agriculture commodities.

## **Southwest Dairy Farmers | Grades K-12 | [www.southwestdairyfarmers.com/pages/mobile-dairy-classroom](http://www.southwestdairyfarmers.com/pages/mobile-dairy-classroom)**

The Mobile Dairy Classroom is a traveling milking parlor, featuring a live cow and an oral presentation. Trained instructors demonstrate how to milk a cow, describe how milk goes from the farm to the consumer, and then answers questions from the audience. This is an innovative program that brings the dairy experience directly to children. At schools, students and teachers share an experience that includes math, science, health (nutrition), and agriculture, all presented in an outdoor classroom format.

## **Texas Farm Bureau Ag in the Classroom | Grades 1-6 | <https://texas4-h.tamu.edu/resources/>**

Ag in the Classroom is a multifaceted program brings the world of agriculture to young minds. It helps students grades 1-6 to see the world where their food is grown and how farmers and ranchers impact their daily lives. Lesson focus on crops, livestock, and Texas producers.

## **Texas Farm Bureau Mobile Learning Barn | Grades 1-12 | <https://texas4-h.tamu.edu/resources/>**

The Mobile Learning Barn trailer creates a connection between people and agriculture, and the impact it has on our lives. The Mobile Learning Barn is a flexible and versatile learning center that can be used by every county Farm Bureau throughout Texas to educate students on the importance of agriculture and it's impact on Texans.

## **Hatching Eggs in the Classroom | Grades K-5 | <https://texasyouthlivestock.com/wp-content/uploads/2017/12/E-635-Hatching-Eggs-in-the-Classroom-A-Teachers-Guide.pdf>**

Science projects involving eggs and embryos can lay the foundation for studies of the life sciences, introduce scientific methods and promote an appreciation for life. This program takes students through the hatching cycle of chickens while teaching the importance of temperature, humidity, egg handling, and incubation for a successful hatching process.

## **National 4-H Curriculum**

National 4-H Council offers a variety of beneficial curriculum for the Texas 4-H Champion School program. Below are some of those, pre-approved for this program:

<b>Title</b>	<b>Description</b>
Dog	How to raise a furry friend and how to plan and conduct a dog show.
Jumping to New Heights: Horsemanship	From horse breeds, nutrition, purchasing descriptions and more.
After-school Agriculture	30 minute activities to teach youth the various ways agriculture interacts with their daily lives.
The Incredible Pig	Youth learn about pig parts, breeds, cost of raising pigs.
Rams, Lambs, and You	Youth learn how to select a project lamb, properly care for the animal and prepare for the show.
Veterinary Science	Basic animal care, emerging research, and food safety.
Getting Your Goat	Responsible goat management, health practices, goat fitting, show skills, record keeping and leadership.
Purr-fect Pals	Youth learn about selecting and caring for a cat, budgeting for its care, identifying breeds, and best practices for handling and grooming.
Scratching the Surface	Learn about poultry parts, breeds, cost of raising poultry, how to care for poultry.
What's Happening	From rabbit parts and breed identification to recognizing a healthy animal, you will learn many skills related to raising a rabbit.

# FAMILY & COMMUNITY HEALTH

# 02.

## **Texas 4-H Explore Guides | Grades 3-12 | <https://texas4-h.tamu.edu/resources/>**

Texas 4-H Explore Guides offer interactive lessons and activities which allow students to learn more about a specific subject matter. Suggested Texas 4-H Explore Guides for family & community health include:

- **Cooking in the Kitchen** | Food preparation is key to life! Students will learn the basics of kitchen tools, measuring, chopping, and cooking safely
- **Dollars & Sense** | The value of money is taught via food budgeting, cost analysis, and healthy meal planning
- **Keeping Food Safe** | Prevent foodborne illness with lessons on bacteria, cross-contamination prevention, and cooking safely
- **Food Challenge** | Youth will explore beyond the Texas 4-H Food Challenge contest through food substitutions, food safety, garnishing, and cost analysis

## **High School Financial Planning | Grades 8-12 | <https://fch.tamu.edu/programs/financial-management/>**

High School Financial Planning is a six-part series in which students learn personal financial management concepts through practical application exercises that relate these concepts to their everyday lives. Specific topics include earning income, credit and the time value of money, budgets, savings, and projecting finances into the future. This curriculum is approved by the Texas Education Agency for the required course of study that every high school student is required to take.

## **Welcome to the Real-World Financial Simulation | Grades 8-12 | [fch.tamu.edu/programs/financial-management/](https://fch.tamu.edu/programs/financial-management/)**

Welcome to the Real World consists of two parts: financial education and real world expenditure decision - making opportunities. WTRW! is an active, hands on activity that includes career and money management fact sheets, and gives young people the opportunity to explore careers and make lifestyle and spending choices similar to those faced by adults.

## **Balancing Food and Play | Grade 3 | <https://texas4-h.tamu.edu/resources/>**

Balancing Food and Play is a program which focuses on nutrition and physical activity. Lessons focus on MyPlate, serving sizes, healthy menus, dining out, setting physical activity goals, alternative activities to reduce screen time, and more.

## **Winning with Nutrition | Grades 7-9 | <https://texas4-h.tamu.edu/resources/>**

This curriculum engages young athletes in learning the importance of proper nutrition and hydration for maximum athletic performance and for general health and well-being. The lessons cover Eating for Excellence, Hydration, Game Day Dining, Performance Robbers- -smoking, alcohol, and inadequate sleep, and Food Fads and Facts.

## **Putting the Pieces Together | Grades 3-12 | <https://texas4-h.tamu.edu/resources/>**

Putting The Pieces Together is a leadership curriculum for youth and is organized around the 4 H's of the 4-H program: Head, Heart, Hands, and Health. Each chapter has 4 levels of activities. These lessons are designed to take the learner from program participant (level 1 activities) to program leader (level 4 activities) teaching lessons to younger youths.

TEKS: Art, Language Arts, Physical Education

## **Take a Stand | Grades 3-12 | <https://texas4-h.tamu.edu/resources/>**

This 4-H curricula aims to teach strategies to children and teens to reduce bullying. Topics include conflict resolution, bullying, communication, etiquette, teamwork, and cultural awareness. Activities and work sheets are also included.

## **Texans Building Character | Grades 3-12 | <https://texas4-h.tamu.edu/resources/>**

This series of lessons teaches students of all ages the importance of living out the six pillars of character (Trustworthiness, Respect, Responsibility, Fairness, Caring, and Citizenship).

## **Yea 4-H! An Afterschool Learning Adventure | Grades K-2 & 6-8 | [www.agrilifebookstore.org/default.asp](http://www.agrilifebookstore.org/default.asp)**

Yea 4-H! targets grades K-2 and 6-8 and is designed for after-school settings, 4-H Clover Kids groups, curriculum enrichment, and more. The curriculum includes lessons on history, environment, science, character development, leadership, wellness, and much more!

## National 4-H Curriculum

National 4-H Council offers a variety of beneficial curriculum for the Texas 4-H Champion School program. Below are some of those, pre-approved for this program:

Title	Description
Choose Health: Food, Fun & Fitness	Curriculum that teaches 8-12 years old students the importance of healthy living through six hands-on, interactive lessons and games.
What's on Your Plate?	Students in grades 5-12 will learn the building blocks of food science using chemistry, biology, and physics in a "kitchen laboratory" setting.
Hands On Food Safety	Foodborne illness can be prevented if consumers adopt proper practices for safe food handling and preparation. Hands On: Real World Lessons for Middle School Classrooms is a comprehensive curriculum designed to reduce the occurrence of foodborne illness, to increase awareness around personal hygiene, and to encourage safe food preparation practices.
Steps to a Healthy Teen	STEPS to a Healthy Teen consists of 10 activities that target youth ages 14 to 19 to emphasize physical activity and nutrition. Participants experience a variety of learning methods and tools such as games, case scenarios, computer software programs, cooking demonstrations, and fitness challenges.

# NATURAL RESOURCES

# 03.

## **Texas 4-H Explore Guides | Grades 3-12 | <https://texas4-h.tamu.edu/resources/>**

Texas 4-H Explore Guides offer interactive lessons and activities which allow students to learn more about a specific subject matter. Suggested Texas 4-H Explore Guides for natural resources include:

- Exploring Water | Water is important to practically every aspect of our life, and in ways we often do not recognize or appreciate. Water is essential to food production, transportation, sanitation and health, energy production, recreation, and even politics
- Electro-coagulation | Access to clean drinking water is essential for human health, national security, and economic prosperity. In wealthy countries such as the United States, clean water is readily available due to investment in water exploration, treatment, and sanitation

## **City Critters | Grade 5 | <https://texas4-h.tamu.edu/resources/>**

Deer in the garden? Raccoons in the trash can? This exciting enrichment program teaches students about the species of wildlife that share our urban environment.

## **Predators in the Classroom - A Primer on Predator Ecology | Grade 4 | [wildlife.tamu.edu/publications](http://wildlife.tamu.edu/publications)**

This four-part set includes materials to help elementary-age children learn about various predators and their role in the environment.

## **Managing the White-Tailed Deer: A Wildlife and Fish Management Curriculum | Grades 9-12**

### **[wildlife.tamu.edu/publications](http://wildlife.tamu.edu/publications)**

This curriculum teaches high school students key science and math principles as they pertain to natural resources management. Students will learn the three important components of white-tailed deer management: the deer population, the habitat, and the people who interact with and use this species. The comprehensive background reading section describes each component, then details how each is assessed and evaluated by wildlife biologists. Students learn to collect, analyze and interpret data to help them evaluate the three components. Students learn to make management recommendations based on this data.

## **Investigating Water | Grade 4 | <https://texas4-h.tamu.edu/resources/>**

This program contains teaching plans for 12 lessons on topics such as: Water in Our Daily Lives; The Water Cycle; Amazing Aquifers; Water and Soil; Aquatic Ecosystems; and; Water Wise Use; Accompanying each lesson plan are activity and record sheets for hands-on learning experiences. This curriculum is intended for students in about 4th to 8th grades.

## **Wildlife Success Stories and Endangered Species | Grade 3 | [wildlife.tamu.edu/publications](http://wildlife.tamu.edu/publications)**

This exciting enrichment program helps third and fourth graders learn how careful management can help protect endangered species of wildlife. Animals featured include the wild turkey, wood duck, black-footed ferret, shortnose sturgeon, white-tailed deer, alligator, Kemp's Ridley's sea turtle, bald eagle, golden-cheeked warbler, and red-cockaded woodpecker.

## **Managing Largemouth Bass in Texas Ponds: A High School Math and Science Curriculum | Grades 9-12**

### **[wildlife.tamu.edu/publications](http://wildlife.tamu.edu/publications)**

Learn firsthand what biologists, landowners and volunteers practice daily in Texas in order to conserve and manage our natural resources! This curriculum is designed to teach high school students key science and math principles pertaining to natural resources management. It uses a Texas fish species, largemouth bass, and real-world scenarios that occur across the state. The lessons involve all phases of managing natural resources: data collection, analysis and interpretation. In addition to the classroom work, optional field exercises are included to encourage the students to put their classroom experiences into action.

# LEADERSHIP & CITIZENSHIP

# 04.

## Texas 4-H Explore Guides | Grades 3-12 | <https://texas4-h.tamu.edu/resources/>

Texas 4-H Explore Guides offer interactive lessons and activities which allow students to learn more about a specific subject matter. Suggested Texas 4-H Explore Guides for leadership & citizenship include:

- Personal Leadership Development | Define leadership while learning to set goals, accept self, and make positive decisions about life choices
- Global Education | Students will learn how economy and poverty affect lives throughout the world without leaving their classroom
- Leadership within a Group | This book teaches effective communication, accepting differences, and adapting to leadership styles for our future leaders of Texas and beyond
- Outdoor Education | Team building in outdoor education
- Personal Development | Character traits identify who we are. Students will explore what character traits are valuable to success
- Public Speaking | Public speaking is the greatest fear of most Americans. Learn how to effectively communicate and overcome that fear

## Keys to the Courthouse | Grades 7-12 | <https://texas4-h.tamu.edu/resources/>

This curriculum is designed for middle and high school students. The lessons teach participants about the functions of elected county officials in Texas, the primary services offered by county government, the justice process at the county level, elections and voting, and the financing of county government. Each lesson has appropriate activities to reinforce learning.

## Patriotism Through Preparedness | Grade 4 | <https://texas4-h.tamu.edu/resources/>

This curriculum was created to teach and encourage students and their families to prepare for a disaster. The curriculum includes lessons on disaster preparedness before, during, and after a disaster should one occur.

## National 4-H Curriculum

National 4-H Council offers a variety of beneficial curriculum for the Texas 4-H Champion School program. Below are some of those, pre-approved for this program:

Title	Description
Build Your Future	Build Your Future: Choices... Connections... Careers is a career education and workforce development curriculum for youth in grades 9-12 . This is the set of one facilitator guide and five youth guides. From exploring potential jobs to starting their own business, these experiential activities help teens develop skills and knowledge in career exploration.

# SCIENCE, TECHNOLOGY, ENGINEERING & MATH

# 05.

## Texas 4-H Explore Guides | Grades 3-12 | <https://texas4-h.tamu.edu/resources/>

Texas 4-H Explore Guides offer interactive lessons and activities which allow students to learn more about a specific subject matter. Suggested Texas 4-H Explore Guides for science, technology, engineering & math include:

- Robotics: Building Blocks of Bots | Students will learn the building blocks for robotics including engineering, programming, and mapping
- Science | Science project lessons include life cycles, photosynthesis, soil erosions, soil texture, textile science, and wind turbines
- Photography | Students will become skilled photographers via lessons on camera use, lighting, composition, printing, and displaying photos
- Theater & Performance Arts | Students will learn valuable theatrical skills related to body language, voice, character roles, and acting styles

## Lego Education Academy | Grades 4-12 | <https://elearning.legoeducation.com/>

Organized into self-paced courses from complete beginner to classroom ready, LEGO Education Academy Master Trainer Rob Widger will help get you up and running with EV3 in no time - both on desktop and tablet. Get ready for success! StoryStarter was developed with teachers like you, and LEGO Education Master Trainer Sofie Man will show you how to use it in the classroom. These three self-paced and highly practical courses will get you up and running in no time at all. Get ready to facilitate exciting and engaging science projects in your classroom using LEGO® Education WeDo 2.0. Master Trainer Sarah will show you everything, from preparation, to getting started and how to use it in the classroom. Available in English and Spanish for both PC and tablet interaction.

## STEMcentric | Grades 4-12 | <http://www.stemcentric.com/>

STEMcentric is a resource for those involved with STEM education, either as a student or instructor. It is the home for the LEGO Robotics tutorials for the Mindstorms EV3, NXT and even the RCX. STEMcentric is lovingly maintained by FRC Team 1540, the Flaming Chickens.

## NASA Robotics Alliance Project | Grades 9-12 | <https://robotics.nasa.gov/edu/9-12.php>

Robots are a great way to inspire students to learn about math, science, and technology! The Robotics Alliance Project seeks to provide a clearinghouse of robotics-related educational materials. Click on the links above and below to find lessons, materials, and robotics education discussion forums.

## National Geographic Challenge: Robots! | Grades 3-10 | [www.nationalgeographic.org/game/challenge-robots/](http://www.nationalgeographic.org/game/challenge-robots/)

TeachEngineering is a digital library comprised of standards-aligned engineering curricula for K-12 educators to make applied science and math come alive through engineering design. It is free for everyone and uses resources and materials found in most classrooms already.

## Teach Engineering | Grades K-12 | <https://www.teachengineering.org/>

The goal of Challenge: Robots! is to expose students to exciting careers in engineering, focused specifically on the area of robotics. It is a browser-based game that challenges students to take on the role of an engineer at RoboWorks, a robotics factory. Students undergo orientation and training exercises in the form of fun, self-directed challenges. Through these engaging and fast-paced activities, students learn important concepts about the engineering process, as well as the main parts of a robot, how those parts change with the problem the robot is intended to solve, and basic robotics programming.

## National 4-H Curriculum

National 4-H Council offers a variety of beneficial curriculum for the Texas 4-H Champion School program. Below are some of those, pre-approved for this program:

Title	Description
Junk Drawer Robotics	Junk Drawer Robotics emphasizes different aspects of robotics while youth build their own robots and develop robotics knowledge and skills for youth in grades 3 - 12.
4-H National Youth Science Day	National Youth Science Day (NYSD) challenge, Game Changers. Designed by Google and West Virginia Extension service, Game Changers teaches kids ages 8-14 how to use computer science (CS) to create games, solve problems and engage with topics they're passionate about.
Robotics Curriculum Support and Project Resources	<a href="https://docs.google.com/document/d/1z47zL9zvMHTXztZ69hSIEW65WUEau_ft7sKSI-Hc7iWo/edit">https://docs.google.com/document/d/1z47zL9zvMHTXztZ69hSIEW65WUEau_ft7sKSI-Hc7iWo/edit</a>