Growing Entrepreneurs: Agriscience Curriculum

In the Agriscience Curriculum, students explore careers in the agricultural industry. Throughout the curriculum, students work on learning the various sectors of the agricultural industry. The semester culminates with a capstone project that includes creating their own Agribusiness, where students will have to include various aspects of the agricultural industry and present their business using the skills they gathered through the semester. Use this document to access the teacher materials and lesson plans.

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# Units Overviews

**Unit 1 Introduction to Agriscience:** In this unit, students will be introduced to the CTE course by learning and practicing classroom procedures, creating an interactive notebook, exploring Agriscience career information, and being introduced to the Growing Entrepreneur project that will be completed throughout the course.

**Tools/Activities:** [My Future AZ](https://www.arizonafuture.org/programs/workforce-programs/possible-futures-career-exploration-curriculum/); Diving Into an Ag Career With No Ag Background Worksheet

**Standards:** AZ Career Literacy Standards 1.0

**Unit 2 Career Research:** In this unit, students will take a deeper dive into Agriscience careers and pathways in the agricultural industry. Each lesson will allow students to look more in-depth at careers within that field. This unit will end in students presenting their findings to the class.

**Tools/Activities:** [My Future AZ](https://myfutureaz.pipelineaz.com/); Edge Factor; Career Pathways – Which Are You Most Interested In? Worksheet

**Standards:** AZ Career Literacy Standards 1.0

**Unit 3 Professional Skills:** In this unit, students will learn more about professional skills needed to work in the agricultural industry. They will assess their own professionalism and learn opportunities for growth so they can be more successful in their careers. Students will perform leadership roles and demonstrate skills that will promote autonomy and decision-making.

**Tools/Activities:** My Future AZ; Edge Factor

**Standards:** AZ Career Literacy Standards 1.0; CTE Professional Skills 1.0-9.0

**Unit 4 Communication:** In this unit, students will learn vocabulary terms and symbols frequently used in the Agriscience world. Students will learn how to communicate in various forms, using a cell phone, and email.

**Tools/Activities:** Student Activity Sheet – Listen and Learn

**Standards:**: AZ Career Literacy Standards 4.0; Agriscience 2.0

**Unit 5 History of the Agricultural Industry:** In this unit, students will learn the history of agriculture in America and will be introduced to the top agricultural industries in Arizona.

**Tools/Activities:**

**Standards:** Agriscience 1.0; Career Literacy 1.0

**Unit 6 Plant Science:** This unit will expose students to the basics of plant growth needs and the various careers in plant science.

**Tools/Activities:** AgExplorer Implementation Guide;Syngenta – Why is soil so important? Lesson Plan

**Standards:** Agriscience 5.0, 7.0, and 8.0; CTE Professional 1.0

**Unit 7 Animal Science:** In this unit, students will examine the many skills needed in the animal science industry.

**Tools/Activities: AgExplorer Implementation Guide;**

**Standards:** Agriscience 9.0 and 10.0

**Unit 8 Food Safety and Processing:** In this unit, students will review all safety practices needed while preparing, processing and packaging food.

**Tools/Activities:** AgExplorer Implementation Guide;

**Standards:** AZ Career Literacy Standards 6.0 and 7.0; Agriscience 12.0

**Unit 9 Natural Resources:** In this unit, students will explore proper protocol for responding to and processing a crime scene. Students will also explore the various professions within this career field.

**Tools/Activities:** AgExplorer Implementation Guide;

**Standards:** Agriscience 2.0 and 4.0

**Unit 10 Agricultural Mechanics:** In this unit, students will explore proper safety practices in creating projects by using the correct tools appropriately.

**Tools/Activities:** AgExplorer Implementation Guide;

**Standards:** Agriscience 13.0 and 14.0

**Unit 11 Agribusiness:** In this unit, students will explore entrepreneurship skills, marketing and business practices for beginning a business in the agricultural industry.

**Tools/Activities:**AgExplorer Implementation Guide;

**Standards:** Agriscience 15.0

**Growing Entrepreneur:** Students will be assigned roles and responsibilities after completing all units. Students will create an Agribusiness based on the skills and projects they had created previously. Students will present their business to their peers.

# Teacher Notes

* Please read through the linked lesson plans and resources to become familiar with the content prior to presenting it to students and to print any handouts.
* The layout of this course is to present students with more knowledge on Agriscience careers through presentations and activities during the majority of the week. They will then create their own Agriscience business where they will work in groups to demonstrate various skills needed in the Agriscience industry.
* Field Trips: These links contain recorded “field trips” made by the Arizona Farm Bureau of various agricultural industries in Arizona. These links will also be included in the lesson plans based on the career pathway: <https://www.youtube.com/watch?v=Mza6dq9PjlA> (Virtual Tour of the cotton industry in Arizona); <https://www.youtube.com/watch?v=bfdTH-6X06g> (Virtual Tour of Hickman Family Farms); <https://www.youtube.com/watch?v=cmWya1F9mUg> (Virtual Tour of AZGFD Fish Hatchery); <https://www.youtube.com/watch?v=8idEKU7WmQ0> (Virtual Tour of Bayer Marana Greenhouse)
* Edge Factor offers multiple videos exploring the agriscience industry. Many video clips are linked throughout the lesson plans, but here is a list of additional videos/links that can be used as extensions as necessary:
  + Ag Technician (Agricultural Mechanics)
  + Calf Manager (Animal Science)
  + Canning Operator (Food Safety and Processing)
  + Certified Water Quality Analyst (Natural Resources)
  + Farmer (Plant Science)
  + Food Service Worker (Food Safety and Processing)
  + Forester (Natural Resources)
  + Greenhouse Tomatoes (Plant Science)
  + Plasma Cutter Operator (Agricultural Mechanics)
  + Veterinarian (Animal Science)
  + [Career Exploration Guide](https://www.azed.gov/sites/default/files/2022/10/MFAZMSGetStartedGuide.pdf)

# Things to do before teaching this curriculum

* Engaging Industry Partners: Teachers are encouraged to partner with local industry professionals to create additional career exploration experiences for the students.
* Complete any school/district field trip paperwork as necessary, you also want to try to schedule visits at least two weeks in advance.
* Sign up to access Edge Factor course content. Videos will be linked in corresponding lesson plans but it is a good idea to explore the platform prior to accessing it.
* Education and Career Action Plans (ECAPs)--An ECAP is an ongoing process that empowers students to create a meaningful and personalized plan for coursework, career aspirations, and extended learning opportunities to develop the student’s individual academic, career goals and postsecondary plans. Students, who have opportunities to identify interests, skills, and strengths and then apply that knowledge to create their own education and career action plan (ECAP), transition more seamlessly into high school, postsecondary, and workplace requirements. In this curriculum, Unit 2 Career Research directly connects to the process and development of student ECAPs. These are the “must hit” lessons of the curriculum. These lessons should be taught sequentially. However, they do not need to be taught one after the other. It is recommended that Unit 2 lessons be spread out over the course of the semester. Dedicate one day per week to Career Research. For additional Career Research lessons, view this [overview](https://docs.google.com/document/d/1gHSKizB8jZ7-hstsHYd51pFw_0CxcbxQ/edit?usp=sharing&ouid=107888087825574198363&rtpof=true&sd=true) of Possible Futures lessons.
* Set up a case manager account with [My Future Az.](https://myfutureaz.pipelineaz.com/) This platform is the Arizona Department of Education’s replacement tool for AzCIS. Students will store their ECAP assignments on this platform as well as explore career information related to their interests. More information [here](https://www.azed.gov/ecap).
* Need to report an issue with one of the lessons or associated materials? Fill out this survey to report updates or revisions that are needed: <https://forms.gle/EyoszXyyncTTHtXY7>

# Curriculum Lessons

| Lesson Title | AZ Career Literacy Standards | Lesson Overview | Learning Targets | Lesson Time |
| --- | --- | --- | --- | --- |
| Unit 1: Introduction to Agri-science In Unit 1, students will be introduced to the CTE course by learning and practicing classroom procedures, creating an interactive notebook, exploring agriscience career information, and being introduced to the Growing Entrepreneur project that will be completed throughout the course. | | | | |
| Lesson 1.1:  [Classroom Procedures and CTE Delivery Model](https://docs.google.com/document/d/1Wx-M6pOZC8fZBlIcDn4ya42xy4Kw7rFM/edit) | **AZ Career Literacy Standards:**  2.0 Critical Thinking and Problem Solving Skills  2.1  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  7.0 Personal Responsibility  7.2 | In this lesson, students will be introduced to the classroom culture by demonstrating procedures for completing bell work and closures as well as responding to the class signal. They will also begin learning peers' names and more about them. Students will begin to explore the CTE Delivery Model. As the teacher, you will participate as well to model expectations.  Meet students at the classroom door and let them know where they can find the bellwork activity and how they will find their seat- diagram projected, name tags, etc.  **Note:** Prior to teaching this lesson you will need to determine how you will [seat students:](https://docs.google.com/document/u/0/d/1qc9e8Y-MOK8sdQ3f6uNyylYeQEvRt_28YwUrs1Qxenw/edit) Industry normally will seat alphabetically by last names. Then further divide the class as evenly as possible into 4-5 groups. You will want to number the groupings and create a clear diagram to be added to the presentation for the lesson. You will also need to determine what quiet hand signal you want to teach your students from the first day. [Here](https://www.lauracandler.com/quiet-signals/) are resources. | * Demonstrate the procedures for bellwork, responding to the class signal, and closure. * Know and correctly pronounce the first and last names of all members of his/her group and two facts about each of them * Explain the four major components of the CTE Delivery Model * Allow for the structure of your class to be established during the seating process. There should be clear organization. | 1 day  45-60 minutes |
| Lesson 1.2:  [Course Syllabus](https://docs.google.com/document/d/1uG7CylsBxGTUlJfxE6XfnJf_VCQI3ncZ/edit) | **AZ Career Literacy Standards:** | In this lesson, students will work together using the jigsaw method to examine the course syllabus while practicing more classroom procedures.  If time allows practice how you would like students to enter and exit your classroom. | * Demonstrate the procedures to jigsaw an assignment and turn in an assignment * Paraphrase class requirements, policies, and expectations * Know and correctly pronounce the names of at least four additional class members | 1 day  45-60 minutes |
| Lesson 1.3:  Professionalism | **AZ Career Literacy Standards:**  2.0 Critical Thinking and Problem Solving Skills  2.1  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  7.0 Personal Responsibility  7.2 | In this lesson, students will continue to practice procedures including taking quizzes and participating in gallery walks. They will also be introduced to professionalism terminology and ideas reflecting on how they can grow in this area.  **Note:** You will have to develop a Syllabus Quiz | * Demonstrate the procedure for quiz readiness and for a gallery walk * Define professionalism and identify what that means in our society | 1 day  45- 60 minutes |
| Lesson 1.4:  Classroom Norms | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  7.0 Personal Responsibility  7.2 | In this lesson, students will dive deeper in the meaning of work-based learning by learning the opportunities they will have during the course and how they are useful for professional growth. They will also work together to create classroom norms. | * Identify at least two work-based learning opportunities available during the course and explain how they will increase professional skills * Collaborate to co-craft classroom norms * Know and correctly pronounce the names of at least 10 classmates | 1 day  45- 60 minutes |
| Lesson 1.5:  [Leadership](https://docs.google.com/document/d/1pA-BLYC0eH_WyZiEcKAPBfvMvaFFilTA/edit) | **AZ Career Literacy Standards:**  4.0 Interpersonal Communication  4.1  7.0 Personal Responsibility  7.2 | This lesson is used to guide students through the creation and set up of their interactive notebook that will be used throughout the course.  **Note:** It will be helpful for you to create a model notebook prior to class for students to reference as needed. | * Set up their interactive notebook to use during the semester | 1 day  45- 60 minutes |
| Lesson 1.6:  Introduction to Agriscience Careers | **AZ Career Literacy Standards:**  1.0 Career Research  1.3  1.5  1.6  3.0 Collaboration  3.3  4.0 Interpersonal Communication  4.1  4.2  4.4  6.0 Accountability & Ethics  6.2  7.0 Personal Responsibility  7.2  7.4 | In this lesson, students will begin to explore different careers in the agriculture field. They will work together to complete a jumble sort putting career specialties under the corresponding career pathways. They will then categorize agriculture careers by education level needed. | * Identify careers within the agricultural industry. * Describe basic duties of each career path. * Complete a graphic organizer differentiating different positions by education level. | 1 day  45-60 minutes |
| Unit 2: Career Research In Unit 2, students will take a deeper dive into agriscience careers and pathways in the agricultural industry. Each lesson will allow students to look more in depth at careers within that field. This is meant to be a week-long project. | | | | |
| Lesson 2.1:  [Career Research](https://docs.google.com/document/d/17N5bDc_kTd7YDuCdUdlO6vjerXwVBd-C/edit) | **AZ Career Literacy Standards:**  1.0 Career Research  1.3  1.5  1.6  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.4  5.0 Technology  5.3  5.4  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.1  7.2  7.4 | In this lesson, students will learn more about agriscience careers and qualifications needed to perform this career by watching an Edge Factor career video and creating a job description. | * Investigate work tasks, settings, salary, job outlook and resources corresponding to agricultural careers. * Demonstrate a clearer understanding of the career exploration process and how their own skills and interests match up to a chosen major/career path. * Explain the components of a job description. | 1 day  45- 60 minutes |
| Lesson 2.2:  [Applying for a Job](https://docs.google.com/document/d/1iiVUguVmGAFEYM_5QMQHX-2O8MorB2Mh/edit) | **AZ Career Literacy Standards:**  1.0 Career Research  1.3  1.5  1.6  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.4  5.0 Technology  5.3  5.4  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.1  7.2  7.4 | In this lesson, students will learn more about their values. The goal is to discover what the students hold important in their lives. This should help narrow what career may fit them the best. | * Investigate personal values, goals, and interests * Demonstrate a clearer understanding of the career exploration process and how their own skills and interests match up to a chosen major/career path. | 1 day  45- 60 minutes |
| Lesson 2.3:  Day 3/4 of Agriscience Career Research Lifestyle | **AZ Career Literacy Standards:**  1.0 Career Research  1.3  1.5  1.6  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.4  5.0 Technology  5.3  5.4  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.1  7.2  7.4 | In this lesson, students will learn more about the lifestyle that they foresee for themselves. They will then research three possible career fields that may support that lifestyle.  This should take approximately two days to research.  Use edge factor to help with the research\* | * Investigate work tasks, settings, salary, job outlook and resources corresponding to agriscience careers. * Demonstrate a clearer understanding of the career exploration process and how their own skills and interests match up to a chosen major/career path. | 2 days  90-120 minutes |
| Lesson 2.4:  Day 5 of Agriscience Career Cover Letter and Resume | **AZ Career Literacy Standards:**  1.0 Career Research  1.3  1.5  1.6  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.4  5.0 Technology  5.3  5.4  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.1  7.2  7.4 | In this lesson, students will develop a presentation that incorporates all the information of their desired profession. | * Investigate work tasks, settings, salary, job outlook and resources corresponding to agriscience careers. * Demonstrate a clearer understanding of the career exploration process and how their own skills and interests match up to a chosen major/career path. * Develop a 3-5 minute presentation. | 1 day  45- 60 minutes |
| Lesson 2.5:  [Career Research Presentation](https://docs.google.com/document/d/1XZZJNdHGaSY3EKRmV1yVp36lQJD7DFWu/edit) | **AZ Career Literacy Standards:**  1.0 Career Research  1.2  1.3  1.5  1.6  3.0 Collaboration  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.4  5.0 Technology  5.2  5.4  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2  7.4 | In this lesson, students will register and begin their online ECAP and complete an interest inventory. They will then use that information to do further research relating careers to lifestyles. | * Create a My Future Az account and profile * Begin an Education Career Action Plan * Complete a career interest inventory * Research and present career and lifestyle research | 2 days  90- 120 minutes |
| Lesson 2.6  [High School CTE Program Research](https://docs.google.com/document/d/1vmFjYVkngrkVPNefwyaMH1szlLOBsB_K/edit)  &  Lesson 2.7  Presentations | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  2.2  2.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | Students will present their research in a powerpoint/google slides/canva format. The rubric is attached in the link. Each student should get a copy and complete a three to five minute presentation and be able to answer any questions based on the profession.  For a class of 30 students, this should take approximately 120 minutes. This should take two days, possibly three. | * Students will present their findings for one agriscience job that interests them. * Include at least one slide for trajectory, roles & responsibilities, benefits, and lifestyle * Reflect on jobs that have been presented and add ones that you may be interested in after learning a little more about them to your interactive notebook. | 2 days  45- 60 minutes |
| Lesson 2.8:  High School/ CTE Courses | **AZ Career Literacy Standards:**  1.0 Career Research  1.5  1.7  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  5.0 Technology  5.4  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will explore local CTE programs related to the agriscience industry available at the high school level. | * Explore career preparation opportunities at the high school level * Research CTE programs available to them | 1 day  45-60 minutes |
| Lesson 2.9:  Postsecondary Training | **AZ Career Literacy Standards:**  1.0 Career Research  1.5  1.7  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  5.0 Technology  5.4  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson, students will explore the agriscience careers available with different levels of education as well as post secondary training available. | * List available agriscience careers at each level of education * Research training centers and programs available | 1 day  45- 60 minutes |
| Lesson 2.10:  Training- Guest Speakers | **AZ Career Literacy Standards:**  1.0 Career Research  1.5  1.7  3.0 Collaboration  3.1  3.3  4.0 Interpersonal Communication  4.1  4.2  4.4  5.0 Technology  5.4  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2  7.4 | In this lesson, students will hear from a CTE Agriscience Program guest speaker as well as a post secondary Agriscience program guest speaker to learn more about the programs and opportunities available.  **Go to** [**https://www.communityshare.us/**](https://www.communityshare.us/) **to request guest speakers and/or field trip (virtual or in person) opportunities from local industry partners.** | * Learn more about high school CTE agriscience programs * Explore post secondary options | 1 day  45- 60 minutes |
| Unit 3: Professional Skills In Unit 3, students will learn more about professional skills needed to work in the agriscience industry. They will assess their own professionalism and learn opportunities for growth so they can be more successful in their careers. | | | | |
| Lesson 3.1:  Communication | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  2.2  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.3  4.4  5.0 Technology  5.1  5.2  5.3  5.4  6.0 Accountability & ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson, students will watch a TED talk to learn more about and explore different modes of communication necessary for the workplace. They will practice these skills by completing communication scenarios. | * Explain how communication can impact the success or failure of a job * Practice using effective communication skills, both verbally and written * Choose the appropriate mode of communication | 1 day  45-60 min |
| Lesson 3.2:  Work Orders | **AZ Career Literacy Standards:**  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.3  4.4  6.0 Accountability & ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn more about written communication in the field by examining work orders. | * Describe the purpose for a service work order. * Identify the location of a vehicle’s identification number. * Complete a work order and identify the three C’s. | 1 day  45-60 minutes |
| Lesson 3.3:  Customer Service | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  2.2  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.3  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.1  7.2 | In this lesson, students will learn about conflict resolution by practicing customer service scenarios. | * Explain conflict resolution strategies * Resolve customer conflicts using positive customer service skills | 1 day  45- 60 minutes |
| Lesson 3.4:  Professionalism in Agriscience | **AZ Career Literacy Standards:**  1.0 Career Research  1.3  1.5  1.6  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.4  5.0 Technology  5.3  5.4  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.1  7.2  7.4 | In this lesson, students will learn about professionalism and how it relates to being an employee. They will update their previously created cover letter and resume. | * Recognize and describe professional skills * Explain how they can be a professional | 1 day  45- 60 minutes |
| RC Car Project Week #3 | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  2.2  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will use the information learned in the previous two race car lessons on aerodynamics, downforce, and drag and apply it to their car to enhance performance. | * explain aerodynamics and its impact on their car * plan for future adjustments to enhance car performance | 1 day  45- 60 minutes |
| Unit 4: Communication In Unit 4, students will learn more about communication skills needed to work in the agriscience industry. They will assess their own communication and learn opportunities for improvement so they can be more successful in their careers. | | | | |
| Lesson 4.1:  Automotive Industry Vocabulary | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  3.0 Collaboration  3.1  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn common terminology used in the automotive field by creating a crossword puzzle. | * define terminology | 1 day  45- 60 minutes |
| Lesson 4.2:  Dashboard Icons | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  3.0 Collaboration  3.1  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn to recognize and decipher dashboard warning lights. | * define terminology * recognize dashboard components and icons | 1 day  45- 60 minutes |
| Lesson 4.3:  Vehicle Identification | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  3.0 Collaboration  3.1  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn the different components that help identify a vehicle. | * recognize different vehicle types * accurately identify a vehicle for parts selection | 1 day  45- 60 minutes |
| Unit 5: History of Agriculture In unit 5, students will learn about the history of agriculture in American and in Arizona. Each lesson will allow students to look more in depth at the development of careers within that field. | | | | |
| Lesson 5.1:  Automotive Technician Careers | **AZ Career Literacy Standards:**  1.0 Career Research  1.3  1.5  1.6  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.4  5.0 Technology  5.3  5.4  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.1  7.2  7.4 | In this lesson students will learn more about the Automotive Technician/Mechanic career and qualifications needed to perform this career by watching an Edge Factor career video and creating a job description. | * Investigate work tasks, settings, salary, job outlook and resources corresponding to automotive technology careers. * Demonstrate a clearer understanding of the career exploration process and how their own skills and interests match up to a chosen major/career path. * Explain the components of a job description. |  |
| Lesson 5.2:  Truck/Diesel Careers | **AZ Career Literacy Standards:**  1.0 Career Research  1.3  1.5  1.6  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.4  5.0 Technology  5.3  5.4  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.1  7.2  7.4 | In this lesson students will learn more about the diesel mechanic career and qualifications needed to perform this career by watching an Edge Factor career video and creating a cover letter. | * Investigate work tasks, settings, salary, job outlook and resources corresponding to diesel technology careers. * Demonstrate a clearer understanding of the career exploration process and how their own skills and interests match up to a chosen major/career path. * Explain the components of a cover letter. |  |
| [RC Car Project Week #4](https://drive.google.com/file/d/1m8xp2I9VBQkC-341MFvB5sTs04aDG7hF/view?usp=sharing) | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  2.2  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn how drag and downforce work together to affect performance. |  | 1 day  45- 60 minutes |
| Lesson 5.3:  Auto Expenses | **AZ Career Literacy Standards:**  2.0 Critical Thinking and Problem Solving Skills  2.1  2.2  3.0 Collaboration  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  5.0 Technology  5.3  5.4  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2  7.3  7.5 | In this 2 day lesson students will learn about the expenses of owning a vehicle. They will be able to ask an Auto Insurance Agent Guest Speaker questions to learn more about insurance.  **Go to** [**https://www.communityshare.us/**](https://www.communityshare.us/) **to request guest speakers and/or field trip (virtual or in person) opportunities from local industry partners.** |  | 2 days  90-120 minutes |
| Lesson 5.4:  Automotive Care & Maintenance | **AZ Career Literacy Standards:**  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  5.0 Technology  5.3  5.4  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn basic care for keeping an automobile in working condition. |  | 1 day  45- 60 minutes |
| Lesson 5.5:  [Automotive Accessories](https://drive.google.com/file/d/1l8U5lghAIbyfit7mOml-KoRHyxlpiHwH/view?usp=sharing) | **AZ Career Literacy Standards:**  2.0 Critical Thinking and Problem Solving Skills  2.1  2.2  3.0 Collaboration  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  5.0 Technology  5.3  5.4  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2  7.3  7.5 | In this lesson students will learn about how auto accessories can enhance functionality. They will be given a budget to shop for must-have accessories. |  | 1 day  45- 60 minutes |
| RC Car Project Week #5 | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  2.2  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will use the information from the previous race lesson about aero balance and grip to experiment and improve on their car’s performance. |  | 1 day  45- 60 minutes |
| Unit 6: Plant Science In unit 6, students will learn more about the many aspects of the plant science industry. Students will be able to identify needs of plants for growth and the various careers found in plant science. | | | | |
| Lesson 6.1:  Dealership Departments | **AZ Career Literacy Standards:**  1.0 Career Research  1.5  1.6  2.0 Critical Thinking  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.4  5.0 Technology  5.1  5.4  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn about the different departments in an automotive dealership and create a roadmap for a customer’s dealership experience. |  | 1 day  45- 60 minutes |
| Lesson 6.2:  Dealership Field Trip  \*there is no lesson plan for the field trip | **AZ Career Literacy Standards:**  1.0 Career Research  1.5  1.6  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  5.0 Technology  5.1  5.2  5.3  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.1 | To enhance the learning of careers in the industry, take the students on a field trip to a car dealership. This will allow students to see first hand what each department does and learn more about the careers available.  **Go to** [**https://www.communityshare.us/**](https://www.communityshare.us/) **to request guest speakers and/or field trip (virtual or in person) opportunities from local industry partners.** |  | 1 day |
| Lesson 6.3:  Dealership Careers | **AZ Career Literacy Standards:**  1.0 Career Research  1.3  1.5  1.6  1.7  2.0 Critical Thinking and Problem Solving Skills  2.1  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  5.0 Technology  5.3  5.4  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will research and present on different career opportunities available at an auto dealership. |  | 1 day  45- 60 minutes |
| Lesson 6.4:  Dealership Guide | **AZ Career Literacy Standards:**  2.0 Critical Thinking and Problem Solving  2.1  2.2  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.3  4.4  5.0 Technology  5.1  5.4  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will create a guide for navigating automotive dealership’s departments. |  | 1 day  45- 60 minutes |
| RC Car Project Week #6 | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  2.2  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will share what they’ve tried while getting ideas with others in their class. They will then try some ideas out to see if they can improve performance. |  | 1 day  45- 60 minutes |
| Unit 7: Animal Science In unit 7, students will be introduced to skills needed in the animal science industry, as well as the many careers available in the career pathway. | | | | |
| Lesson 7.1:  Measurement Tools | **AZ Career Literacy Standards:**  2.0 Critical Thinking  2.2  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this 2 day lesson students will be introduced to tools used for measuring in the automotive industry and practice figuring measurements and decimals.  ***\*If you have access to any tools in this lesson, bring them into the classroom for students to explore*** |  | 2 days  90 - 120 minutes |
| Lesson 7.2:  Hand Tools | **AZ Career Literacy Standards:**  2.0 Critical Thinking  2.2  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this 2 day lesson students will be introduced to common tools used in the automotive industry.  ***\*If you have access to any tools in this lesson, bring them into the classroom for students to explore*** |  | 2 days  90 - 120 minutes |
| Lesson 7.3:  Equipment | **AZ Career Literacy Standards:**  2.0 Critical Thinking  2.2  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this unit students will learn about specialty tools and power equipment. |  | 1 day  45- 60 minutes |
|  | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  2.2  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will experiment with the tire tread direction on the car documenting performance. |  | 1 day  45- 60 minutes |
| Lesson 7.4: | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  3.0 Collaboration  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & ethics  6.1  7.0 Personal Responsibility  7.1  7.2  7.3 | In this lesson students will learn about safety procedures for using the tools covered in this lesson. |  | 1 day  45-60 minutes |
| Lesson 7.5: | **AZ Career Literacy Standards:**  2.0 Critical Thinking and Problem Solving Skills  2.1  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  5.0 Technology  5.4  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2  7.3  7.5 | In this lesson students will go through tools they’ve learned to compile a shopping list for basic car maintenance tools. |  | 1 day  45- 60 minutes |
| Unit 8: Food Science and Processing In unit 8, students will learn about the importance of keeping our food safe through all of the manufacturing processes. Several careers will be explored. | | | | |
| Lesson 8.1: | **AZ Career Literacy Standards:**  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn about the different fluids and their uses in car care.  **\*Requires additional materials and preparation prior to lesson** |  | 1 day  45- 60 minutes |
| Lesson 8.2: | **AZ Career Literacy Standards:**  2.0 Critical Thinking and Problem Solving Skills  2.1  2.2  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn how cars are powered through electricity.  **Preview to choose electricity science experiment/s to do.** |  | 1 day  45-50 minutes |
|  | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  2.2  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will explore the suspension system and gain an understanding of how it impacts performance. | * identify components of the suspension system * describe suspension types * explain how suspension systems work | 1 day  45- 60 minutes |
| Lesson 8.3: | **AZ Career Literacy Standards:**  2.0 Critical Thinking and Problem Solving Skills  2.1  2.2  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn about the automotive brake systems and practice the concept with common supplies. |  | 1 day  45- 60 minutes |
| Lesson 8.4: | **AZ Career Literacy Standards:**  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  5.0 Technology  5.1  5.4  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn how to find tire information as well as basic tire care. |  | 1 day  45- 60 minutes |
| Lesson 8.5: | **AZ Career Literacy Standards:**  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  5.0 Technology  5.4  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lessons students will learn about basic maintenance performed on vehicles including oil changes, fluid checks, tire refill, filter changes, jump start a battery, and inspections. |  | 1 day  45- 60 minutes |
| Lesson 8.6: | **AZ Career Literacy Standards:**  1.0 Career Research  1.5  1.6  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  5.0 Technology  5.1  5.2  5.3  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.1 | **Go to** [**https://www.communityshare.us/**](https://www.communityshare.us/) **to request guest speakers and/or field trip (virtual or in person) opportunities from local industry partners.** |  | 1 day |
|  | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  2.2  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will work together to change their suspension with spacers and document the impact on performance | * explain the impact of shock spacers on performance | 1 day  45- 60 minutes |
| Unit 9: Natural Resources In unit 9, students will learn about the different types of careers found in the natural resources area of the agriscience industry. | | | | |
| Lesson 9.1: | **AZ Career Literacy Standards:**  1.0 Career Research  1.3  1.6  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.4  5.0 Technology  5.4  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will gain an understanding of how gasoline works and explore careers working in the gasoline industry. | * define terminology * describe careers working with gasoline * explain how a vehicle uses gasoline | 1 day  45- 60 minutes |
| Lesson 9.2: | **AZ Career Literacy Standards:**  1.0 Career Research  1.3  1.6  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.4  5.0 Technology  5.4  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn the difference between diesel fuel and gasoline. They will learn more about the fuel industry with a guest speaker.  **Go to** [**https://www.communityshare.us/**](https://www.communityshare.us/) **to request guest speakers and/or field trip (virtual or in person) opportunities from local industry partners.** | * define terminology * explain how diesel fuel works * communicate effectively with an industry professional | 1 day  45-60 minutes |
| Lesson 9.3: | **AZ Career Literacy Standards:**  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.4  5.0 Technology  5.4  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn how electric cars differ from traditional gasoline powered cars. | * define terminology * explain how an electric vehicle works * compare gasoline vs electric vehicles | 1 day  45-60 minutes |
| Lesson 9.4: | **AZ Career Literacy Standards:**  1.0 Career Research  1.3  1.6  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.4  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lessons students will learn about hybrid vehicles and hear from a guest speaker that works with hybrids.  **Go to** [**https://www.communityshare.us/**](https://www.communityshare.us/) **to request guest speakers and/or field trip (virtual or in person) opportunities from local industry partners.** | * define terminology * explain how a hybrid vehicle works * explore career opportunities working with hybrid vehicles * communicate effectively with an industry professional | 1 day  45- 60 minutes |
|  | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  2.2  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will work together to change their suspension positioning and document the impact on performance | * explain the impact of shock positioning on performance | 1 day  45- 60 minutes |
| Unit 10: Agricultural Mechanics In unit 10, students will be introduced to careers in the various trades in agricultural mechanics. Hands on activities will be included for each trade. | | | | |
| Lesson 10.1: | **AZ Career Literacy Standards:**  1.0 Career Research  1.3  1.6  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.4  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will further explore careers in the auto collision field. This will include a guest speaker.  **Go to** [**https://www.communityshare.us/**](https://www.communityshare.us/) **to request guest speakers and/or field trip (virtual or in person) opportunities from local industry partners.** | * discover career opportunities in auto collision * communicate effectively with an industry professional | 1 day  45-60 minutes |
| Lesson 10.2: | **AZ Career Literacy Standards:**  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  5.0 Technology  5.4  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this unit students will learn the components of evaluating and preparing a vehicle for collision repair. | * explain the beginning steps of auto collision repair * describe the information found on an auto collision repair form | 1 day  45- 60 minutes |
| Lesson 10.3: | **AZ Career Literacy Standards:**  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  5.0 Technology  5.4  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn more about collision repair and what shops can offer by researching multiple shops and creating a flyer. | * define terminology * conduct consumer research of collision repair shops * create an informational flyer utilizing information found online | 1 day  45-50 minutes |
| Lesson 10.4: | **AZ Career Literacy Standards:**  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  5.0 Technology  5.4  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn more about the final steps in auto collision repair including painting and refinishing work. | * define terminology * list the steps in the auto collision process * explain how to find auto paint colors | 1 day  45- 60 minutes |
|  | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  2.2  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will work together to change their suspension with spacers and positioning and document the impact on performance | * explain the impact of shock spacers on performance * explain the impact of shock positioning on performance | 1 day  45- 60 minutes |
| Lesson 10.5:  Autobody Shop Field Trip  \*There is no lesson plan for the field trip | **AZ Career Literacy Standards:**  1.0 Career Research  1.5  1.6  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  5.0 Technology  5.1  5.2  5.3  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.1 | To enhance the learning of careers in the industry, take the students to an auto collision shop. This will allow them to see what it is like to work in the auto collision industry.  **Go to** [**https://www.communityshare.us/**](https://www.communityshare.us/) **to request guest speakers and/or field trip (virtual or in person) opportunities from local industry partners.** | * explain the general functions of an auto collision shop * explain career opportunities in an auto collision shop * practice professionalism skills in an automotive workplace | 1 day |
|  | **AZ Career Literacy Standards:**  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will collaborate to design and decorate the body of their car | * work together to design an aesthetically pleasing car design | 1 day  45- 60 minutes |
| Unit 11 Agribusiness In unit 11, students will be able to identify the many careers in the finance, marketing and business side of agriscience. | | | | |
| Lesson 11.1: | **AZ Career Literacy Standards:**  1.0 Career Research  1.2  1.3  1.5  1.6  1.7  2.0 Critical Thinking & Problem Solving Skills  2.1  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  4.4  5.0 Technology  5.1  5.2  5.4  6.0 Accountability and Ethics  6.1  6.2  7.0 Personal Responsibility  7.2  7.4 | In this lesson students will combine all the information learned this semester and create a basic automotive manual. | * compile information learned into a basic manual for automotive care | 5 days  45-60 minutes each day |
| Unit 12 – Growing Entrepreneur In unit 12, students will develop a business as a group that involves utilizing skills from the previous 11 units. | | | | |
| Lesson 12.1 | **AZ Career Literacy Standards:**  2.0 Critical Thinking and Problem Solving Skills  2.1  2.2  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn through experimentation the energy created through speed and how to stop it. | * Gain an understanding of how energy impacts stopping race cars * Use evidence to construct an explanation | 1 day  45-60 minutes |
| Lesson 12.2 | **AZ Career Literacy Standards:**  2.0 Critical Thinking and Problem Solving Skills  2.1  2.2  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will watch a teacher demonstration and videos to learn how air can make a race car go faster. | * construct an explanation using models or representations * integrate qualitative and/or quantitative scientific and/or technical information | 1 day  45-60 minutes |
| 12.3 | **AZ Career Literacy Standards:**  2.0 Critical Thinking and Problem Solving Skills  2.1  2.2  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn how race car drivers are able to stay safe after crashes from the energy stored in the car bumpers | * develop a model to describe phenomena * collect data to serve as the basis for evidence to answer scientific questions * analyze and interpret data to provide evidence * construct an explanation using models or representations | 1 day  45-60 minutes |
| 12.4 | **AZ Career Literacy Standards:**  2.0 Critical Thinking and Problem Solving Skills  2.1  2.2  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn how the outside air temperature can impact a race car tire’s functionality | * construct an explanation using models or representations * integrate qualitative and/or quantitative scientific and/or technical information | 1 day  45-60 minutes |
| 12.5 | **AZ Career Literacy Standards:**  2.0 Critical Thinking and Problem Solving Skills  2.1  2.2  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this lesson students will learn through experimentation about the heat output from race car tires | * make observations and/or measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon or test a design solution * develop a model to describe unobservable mechanisms | 1 day  45-60 minutes |
|  | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  2.2  2.3  3.0 Collaboration  3.1  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & Ethics  6.1  6.2  7.0 Personal Responsibility  7.2 | In this final week students will prepare for their final race by setting daily goals and reflecting on them. | * work with their team to prepare for the final race * adjust their car to improve performance | 5 days  45-60 minutes each day |
| Lesson 1.7: | **AZ Career Literacy Standards:**  2.0 Critical Thinking & Problem Solving Skills  2.1  3.0 Collaboration  3.2  3.3  4.0 Interpersonal Communication  4.1  4.2  6.0 Accountability & ethics  6.1  7.0 Personal Responsibility  7.1  7.2  7.3 | In this lesson students will explore the different safety precautions when working with heavy machinery and tools as well as be able to identify necessary PPE for the industry. | * Identify the types of personal protective equipment utilized in the automotive industry * Distinguish between safe and unsafe practices in the shop | 1 day  45-60 minutes |

**Resources:**

Arizona Farm Bureau

www.agcareers.com

[www.ffa.org](http://www.ffa.org)

AZ CTE Curriculum Consortium

https://edgefactor.com/

https://www.azed.gov/