



DRIVE: Automotive Curriculum

In the DRIVE Automotive Curriculum, students explore careers in the automotive industry from dealerships to manufacturers and maintenance. Throughout the curriculum, students work on an RC Car Project that includes customizing and racing their RC Car. Use this document to access the teacher materials and lesson plans.

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Units Overviews

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

Unit 2- Career Research: In this unit students will take a deeper dive into automotive careers and pathways in the transportation industry. Each lesson will allow students to look more in depth at careers within **that** field.

Unit 3- Professional Skills: In this unit students will learn more about professional skills needed to work in the industry. They will assess their own professionalism and learn opportunities for growth so they can be more successful in their careers.

Unit 4- Terminology: In this unit students will learn vocabulary terms and symbols frequently used in the automotive world, both in industry and for consumer use.

Unit 5- Consumer Education: In this unit students will begin exploring the process of purchasing and maintaining a vehicle of their own. This includes comparing and contrasting different purchasing options as well as all the components of car ownership.

Unit 6- Dealerships: In this unit students will learn more about what happens at an automotive dealership including the different departments and services offered. This unit will be concluded with a field trip to an automotive dealership.

Unit 7- Automotive Tools: In this unit students will be introduced to tools used in the industry and for home repair along with the safety procedures for using them.

Unit 8- Car Care: In this unit students will learn about basic car care and maintenance services. It includes hands-on activities to simulate experiences and concludes with a field trip to an automotive repair shop.

Unit 9- Fuel Sources: In this unit students will learn about the different types of fuel used in vehicles as well as other alternative options to power vehicles.

Unit 10- Collision: In this unit students will be introduced to a career in auto collision and learn more about the specialty. This unit will end with a field trip to an automotive collision shop.

Unit 11- Wrap Up: In this unit students will be able to wrap up everything they've learned about caring for a vehicle by creating an Automotive Manual.

RC Care Project: One day each week (Fun Friday) students will be given time to work in groups on their RC Car. They will have guidelines each week for designing specific race tracks and will explore ways to enhance performance. At the end of the course they will have an additional week to plan and compete in a final race.

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 automotive careers theory through presentations and activities during the majority of the week. They will then participate in 'Fun Fridays' where they will work in groups with the RC Car Project. The RC Car Project days are not aligned with the other course lessons so they can be moved around if necessary.
- There are also 3 field trips (dealership, auto repair shop, collision shop) built into the curriculum along with recommended guest speakers. These can be done in person or virtually.
- ABEC and Edge Factor partnered together to digitize this curriculum with story-driven videos and interactive student activities! [Click here](#) to view the Automotive Course lessons inside of Edge Factor. Make sure to [login](#) or create your [free account](#) to get started.

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. To locate industry partners for guest speakers and field trip (virtual or in person) opportunities, enter requests at <https://www.communityshare.us/> if available in your area.
- Complete any school/district field trip paperwork as necessary.
- 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](#) of Possible Futures lessons.
- Set up a case manager account with [My Future Az](#). 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](#).
- 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 In unit 1 students will be introduced to the CTE course by learning and practicing classroom procedures, creating an interactive notebook, exploring automotive career information, and being introduced to the RC project that will be completed throughout the course.				
Lesson 1.1: CTE Delivery Model	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	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.	• Demonstrate the procedures for bellwork, responding to the class signal, and closure. • Know and correctly pronounce the first and last names of all member of his/her group and two facts about each of them	1 day 45-60 minutes

	7.2	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 as groups of 4 which is best for the car project. 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 are resources.	● Explain the four major components of the CTE Delivery Model	
Lesson 1.2: Course Syllabus	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.	● Demonstrate the procedures to jigsaw an assignment and turn in an assignment ● Paraphrase class requirements, policies, and expectations	1 day 45-60 minutes

			Know and correctly pronounce the names of at least 4 additional class members	
Lesson 1.3: Professionalism View this lesson's videos & digital activities.	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.	- 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 View this lesson's videos & digital activities.	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: Automotive Interactive Notebook	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 Automotive Careers View this lesson's videos & digital activities.	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 automotive field. They will work together to complete a jumble sort putting career specialties under the corresponding career pathways. They will then categorize automotive careers by education level needed.	- Identify careers within the automotive industry. - Describe basic duties of each career path. - Complete a graphic organizer differentiating different positions by education level.	1 day 45-60 minutes
Lesson 1.7:	AZ Career Literacy Standards:	In this lesson students will explore the different safety precautions when working with heavy	Identify the types of personal protective equipment utilized in	1 day

Safety in Automotive Careers View this lesson's videos & digital activities.	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	machinery and tools as well as be able to identify necessary PPE for the industry.	the automotive industry Distinguish between safe and unsafe practices in the shop	45-60 minutes
Lesson 1.8: Introduction to RC Car Project	AZ Career Literacy Standards: 2.0 Critical Thinking & Problem Solving 2.2 3.0 Collaboration 3.1 3.2 3.3 4.0 Interpersonal Communication 4.1 4.2 4.4 6.0 Accountability & Ethics 6.2 7.0 Personal Responsibility 7.2	In this lesson students will be introduced to the RC Car project. They will add pages to their interactive notebook, begin building the car, and learn safety of using the car. Note: the RC Car project will be worked on weekly on Fridays ('Fun Friday')	- Identify parts of the RC Car - Explain how to maintain safety measures when using the RC Car	2 days 90-120 minutes

Unit 2: Career Research

In unit 2 students will take a deeper dive into automotive careers and pathways in the transportation industry. Each lesson will allow students to look more in depth at careers within that field.

Lesson 2.1: Automotive Technician Careers View this lesson's videos & digital activities.	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.	1 day 45- 60 minutes
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Lesson 2.2: Truck/Diesel Careers View this lesson's videos & digital activities.	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.	1 day 45- 60 minutes
Lesson 2.3: Automotive Support Careers	AZ Career Literacy Standards: 1.0 Career Research 1.3 1.5 1.6 3.0 Collaboration 3.1 3.2 3.3	In this lesson students will learn more about the automotive support careers by watching 3 Edge Factor career videos and creating a resume.	- investigate work tasks, settings, salary, job outlook and resources corresponding to automotive support careers. - demonstrate a clearer understanding of the career exploration	2 days 90-120 minutes

View this lesson's videos & digital activities.	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		process and how their own skills and interests match up to a chosen major/career path. understand the components of a resume.	
RC Car Project Week #1	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	In this lesson students will learn how aerodynamics and drag impact race cars through experimentation.	- define the science of aerodynamics - explain how drag influences moving objects - identify the elements of a race car that create drag	1 day 45- 60 minutes

	6.2 7.0 Personal Responsibility 7.2			
Lesson 2.4: Powersports Careers View this lesson's videos & digital activities.	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 explore more about careers in Powersports by researching career information and watching two short videos.	- investigate work tasks, settings, salary, job outlook and resources corresponding to powersports 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.	1 day 45- 60 minutes
Lesson 2.5: Racing Careers	AZ Career Literacy Standards: 1.0 Career Research 1.3 1.5 1.6	In this lesson students will explore the different careers involved in the race car industry by watching a series in Edge Factor. They will	investigate work tasks, settings, salary, job outlook and resources corresponding to auto racing careers.	2 days

View this lesson's videos & digital activities.	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	create a flyer with career information and present it to the class.	● demonstrate a clearer understanding of the career exploration process and how their own skills and interests match up to a chosen major/career path. ● effectively present new information to a group	90-120 minutes
Lesson 2.6: Other Transportation Careers View this lesson's videos	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	In this lesson students will explore more careers in the transportation industry including aircraft and logistics careers via research and a class presentation.	● investigate work tasks, settings, salary, job outlook and resources corresponding to auto racing 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.	1 day 45- 60 minutes

<u>& digital activities.</u>	5.0 Technology 5.3 5.4 6.0 Accountability & Ethics 6.1 6.2 7.0 Personal Responsibility 7.2 7.4			
Lesson 2.7: <u>My Future AZ</u>	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	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

	7.2 7.4			
Lesson 2.8: High School/ CTE Courses View this lesson's videos & digital activities.	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 transportation 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	In this lesson students will explore the automotive careers available with different levels of education as well as post secondary training available.	• List available auto careers at each level of of education • Research training centers and programs available	1 day 45- 60 minutes

View this lesson's videos & digital activities.	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			
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	In this lesson students will hear from a CTE Automotive Program guest speaker as well as a post secondary auto program guest speaker to learn more about the programs and opportunities available. Go to https://www.communityshare.us/ to request guest speakers and/or field trip (virtual or in person) opportunities from local industry partners if available in your area.	• learn more about high school CTE auto programs • explore post secondary options	1 day 45- 60 minutes

	6.2 7.0 Personal Responsibility 7.2 7.4			
RC Car Project <u>Week #2</u>	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 about downforce and how it impacts racing through experimentation.	• explain downforce as it relates to racing • demonstrate how air pressure works	1 day 45- 60 minutes

Unit 3: Professional Skills

In unit 3 students will learn more about professional skills needed to work in the 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 View this lesson's videos & digital activities.	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	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	1 day 45-60 minutes

View this lesson's videos & digital activities.	4.1 4.2 4.3 4.4 6.0 Accountability & ethics 6.1 6.2 7.0 Personal Responsibility 7.2		order and identify the three C's.	
Lesson 3.3: Customer Service View this lesson's videos & digital activities.	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 Automotive View this lesson's videos & digital activities.	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	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

	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			
Lesson 4.1: Automotive Industry Vocabulary View this lesson's videos & digital activities.	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:	AZ Career Literacy Standards:	In this lesson students will learn to recognize and decipher dashboard warning lights.	- define terminology - recognize dashboard components and icons	1 day

Dashboard Icons View this lesson's videos & digital activities.	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			45- 60 minutes
Lesson 4.3: Vehicle Identification View this lesson's videos & digital activities.	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: Consumer Education

In unit 5 students will begin exploring the process of purchasing and maintaining a vehicle of their own. This includes comparing and contrasting different purchasing options as well as all the components of car ownership.

Lesson 5.1: Purchasing a Car View this lesson's videos & digital activities.	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 be introduced to the basic information needed to make an automotive purchase	• define terminology • describe the types of automobile purchases • explain basic information for purchasing an automobile	1 day 45- 60 minutes
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<u>RC Car Project</u> <u>Week #4</u>	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.	• define aerodynamic balance • explain why aerodynamic balance is important to race car engineers	1 day 45- 60 minutes
Lesson 5.2: <u>Auto Expenses</u> <u>View this lesson's videos</u>	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	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/ to request guest speakers and/or field trip (virtual	• explain basic automobile expenses • gain a better understanding of car insurance and careers in insurance • communicate effectively with an industry professional	2 days 90-120 minutes

& digital activities.	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	or in person) opportunities from local industry partners if available in your area.		
Lesson 5.3: Automotive Care & Maintenance View this lesson's videos & digital activities.	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.	- explain regular maintenance that should occur on an automobile - describe how to determine where to take a vehicle for maintenance	1 day 45- 60 minutes
Lesson 5.4:	AZ Career Literacy Standards: 2.0 Critical Thinking and Problem Solving Skills 2.1	In this lesson students will learn about how auto accessories can enhance functionality.	explain how auto accessories can enhance or take away from performance	1 day

Automotive Accessories View this lesson's videos & digital activities.	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	They will be given a budget to shop for must-have accessories.	work within a budget to enhance a vehicle	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	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.	- apply knowledge of aero balance to their RC car - plan for future adjustments to enhance performance	1 day 45- 60 minutes

4.2
6.0 Accountability & Ethics
6.1
6.2
7.0 Personal Responsibility
7.2

Unit 6: Dealerships

In unit 6 students will learn more about what happens at an automotive dealership including the different departments and services offered.

This unit will be concluded with a field trip to an automotive dealership.

Lesson 6.1: Dealership Departments View this lesson's videos	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	In this lesson students will learn about the different departments in an automotive dealership and create a roadmap for a customer's dealership experience.	- understand the process a car goes through in the service department at Larry H Miller Ford Mesa - explain what each department in a dealership does	1 day 45- 60 minutes
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	5.4 6.0 Accountability and Ethics 6.1 6.2 7.0 Personal Responsibility 7.2			
Lesson 6.2: Dealership Field Trip *there is no lesson plan for the field trip View this lesson's videos & digital activities.	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/ to request guest speakers and/or field trip (virtual or in person) opportunities from local industry partners if available in your area.	- explain the general functions of each department in an auto dealership - explain career opportunities in an auto dealership - practice professionalism skills in an automotive workplace	1 day

Lesson 6.3: Dealership Careers View this lesson's videos & digital activities.	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.	• define terminology • describe the different careers available at an automotive dealership • effectively collaborate with peers to complete a task	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	In this lesson students will create a guide for navigating automotive dealership's departments.	• explain what each department at a dealership can do for customers • effectively collaborate with peers to complete a task	1 day 45- 60 minutes

View this lesson's videos & digital activities.	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			
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.	- collaborate and communicate effectively with other groups to learn new techniques - apply adjustments to enhance the performance of their RC car	1 day 45- 60 minutes

Unit 7: Automotive Tools

In unit 7 students will be introduced to tools used in the industry and for home repair along with the safety procedures for using them.

Lesson 7.1: Measurement Tools View this lesson's videos & digital activities.	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. <i>*If you have access to any tools in this lesson, bring them into the classroom for students to explore</i>	● define terminology ● identify common measurement tools used in the automotive industry ● Demonstrate measurements on a standard scale to 1/16th of an inch ● demonstrate the ability to read a micrometer and dial caliper to produce accurate and precise measurements	2 days 90 - 120 minutes
Lesson 7.2: Hand Tools View this lesson's videos	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	In this 2 day lesson students will be introduced to common tools used in the automotive industry. <i>*If you have access to any tools in this lesson, bring them into the classroom for students to explore</i>	● define terminology ● recognize commonly used tools in the automotive industry ● identify functions of tools in the automotive industry	2 days 90 - 120 minutes

& digital activities.	4.2 6.0 Accountability and Ethics 6.1 6.2 7.0 Personal Responsibility 7.2			
Lesson 7.3: Equipment View this lesson's videos & digital activities.	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.	- define terminology - explain the use of specific equipment in the automotive industry	1 day 45- 60 minutes
RC Car Project Week #7	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	In this lesson students will experiment with the tire tread direction on the car documenting performance.	Explain how the tire treads impact car performance	1 day 45- 60 minutes

	4.0 Interpersonal Communication 4.1 4.2 6.0 Accountability & Ethics 6.1 6.2 7.0 Personal Responsibility 7.2			
Lesson 7.4: Tool Safety View this lesson's videos & digital activities.	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.	- explain basic safety in using automotive tools - distinguish between safe and unsafe practices in the shop	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	In this lesson students will go through tools they've learned to compile a shopping list for basic car maintenance tools.	- list basic auto repairs that can be done at home - determine tools needed to maintain a vehicle	1 day 45- 60 minutes

Home Repair/ Maintenance Tools View this lesson's videos & digital activities.	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			

Unit 8: Car Care

In unit 8 students will learn about basic car care and maintenance services. It includes hands-on activities to simulate experiences and concludes with a field trip to an automotive repair shop.

Lesson 8.1: Fluids View this lesson's videos & digital activities.	AZ Career Literacy Standards:	In this lesson students will learn about the	● define terminology ● describe the different fluids used in a car ● explain the uses for the different fluids used in a car	1 day	
	3.0 Collaboration	different fluids and their uses in car care.			
	3.1				
	3.2				
	3.3				
	4.0 Interpersonal Communication			*Requires additional materials and preparation prior to lesson	
	4.1				
	4.2				
	6.0 Accountability and Ethics				
	6.1				
6.2					

***Requires additional materials and preparation prior to lesson**

45- 60
minutes

	7.0 Personal Responsibility 7.2			
Lesson 8.2: Electricity View this lesson's videos & digital activities.	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.	● Define terminology ● Explain how a car is powered ● Describe the connection between an alternator and battery	1 day 45-50 minutes
RC Car Project Week #8	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	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

	4.1 4.2 6.0 Accountability & Ethics 6.1 6.2 7.0 Personal Responsibility 7.2			
Lesson 8.3: Brakes View this lesson's videos & digital activities.	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.	- Define terminology - Recognize the components of a brake system - Describe how a brake system works	1 day 45- 60 minutes
Lesson 8.4: Tire Care View this lesson's videos	AZ Career Literacy Standards: 3.0 Collaboration 3.1 3.2 3.3 4.0 Interpersonal Communication 4.1	In this lesson students will learn how to find tire information as well as basic tire care.	- define terminology - identify tire information - describe basic tire care	1 day 45- 60 minutes

& digital activities.	4.2 5.0 Technology 5.1 5.4 6.0 Accountability and Ethics 6.1 6.2 7.0 Personal Responsibility 7.2			
Lesson 8.5: Basic Maintenance View this lesson's videos & digital activities.	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.	● Define terminology ● Explain the importance of basic automotive maintenance ● Describe basic auto maintenance that can be done at home	1 day 45- 60 minutes
Lesson 8.6: Repair Shop Field Trip	AZ Career Literacy Standards: 1.0 Career Research 1.5 1.6 3.0 Collaboration 3.1	To enhance the learning of careers in the industry, take the students on a field trip to a car repair shop. This will allow students to see first hand the services offered.	● explain the general functions of an auto repair shop ● explain career opportunities in an auto repair shop	1 day

*there is no lesson plan for the field trip View this lesson's videos & digital activities.	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/ to request guest speakers and/or field trip (virtual or in person) opportunities from local industry partners if available in your area.	practice professionalism skills in an automotive workplace	
RC Car Project Week #9	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	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

6.2
7.0 Personal Responsibility
7.2

Unit 9: Fuel Sources

In unit 9 students will learn about the different types of fuel used in vehicles as well as other alternative options to power vehicles.

Lesson 9.1: Gasoline View this lesson's videos & digital activities.	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
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Lesson 9.2: <u>Diesel Fuel</u> <u>View this lesson's videos & digital activities.</u>	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/ to request guest speakers and/or field trip (virtual or in person) opportunities from local industry partners if available in your area.	● define terminology ● explain how diesel fuel works ● communicate effectively with an industry professional	1 day 45-60 minutes
Lesson 9.3: <u>Electric Cars</u> <u>View this lesson's videos & digital activities.</u>	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	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

	6.1 6.2 7.0 Personal Responsibility 7.2			
Lesson 9.4: Other Fuel Sources/ Hybrid View this lesson's videos & digital activities.	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/ to request guest speakers and/or field trip (virtual or in person) opportunities from local industry partners if available in your area.	• 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
RC Car Project Week #10	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	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

4.0 Interpersonal
Communication
4.1
4.2
6.0 Accountability & Ethics
6.1
6.2
7.0 Personal Responsibility
7.2

Unit 10: Collision

In unit 10 students will be introduced to a career in auto collision and learn more about the specialty. This unit will end with a field trip to an automotive collision shop.

Lesson 10.1: Careers in Auto Collision View this lesson's videos & digital activities.	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	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/ to request guest speakers and/or field trip (virtual or in person) opportunities from local industry partners if available in your area.	- discover career opportunities in auto collision - communicate effectively with an industry professional	1 day 45-60 minutes
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	7.0 Personal Responsibility 7.2			
Lesson 10.2: Car Evaluation & Prep View this lesson's videos & digital activities.	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: Repair View this lesson's videos & digital activities.	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	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

	7.2			
Lesson 10.4: Refinishing View this lesson's videos & digital activities.	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
RC Car Project Week #11	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	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

	6.2 7.0 Personal Responsibility 7.2			
Lesson 10.5: Autobody Shop Field Trip *There is no lesson plan for the field trip View this lesson's videos & digital activities.	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/ to request guest speakers and/or field trip (virtual or in person) opportunities from local industry partners if available in your area.	● 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
RC Car Project Week #12	AZ Career Literacy Standards: 3.0 Collaboration 3.1 3.2 3.3	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

4.0 Interpersonal Communication
 4.1
 4.2
 6.0 Accountability & Ethics
 6.1
 6.2
 7.0 Personal Responsibility
 7.2

45- 60
 minutes

Unit 11: Wrap Up

In unit 11 students will be able to wrap up everything they've learned about caring for a vehicle by creating a Car Care Manual.

Lesson 11.1:

[Automotive Manual](#)

[View this lesson's videos & digital activities.](#)

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

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

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

Unit 12: Race Day Prep

In unit 12 students will explore more race car specific lessons to help them apply science and engineering to their final RC race.

Lesson 12.1 NASCAR: How Race Cars Stop View this lesson's videos & digital activities.	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	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
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	6.0 Accountability & Ethics 6.1 6.2 7.0 Personal Responsibility 7.2			
Lesson 12.2 NASCAR: How Air Makes A Race Car Faster View this lesson's videos & digital activities.	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 NASCAR: How Race Car Bumpers Store Energy	AZ Career Literacy Standards: 2.0 Critical Thinking and Problem Solving Skills 2.1 2.2 2.3 3.0 Collaboration	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	1 day 45-60 minutes

View this lesson's videos & digital activities.	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		construct an explanation using models or representations	
12.4 NASCAR: How Does Temperature Affect Tire View this lesson's videos & digital activities.	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 <u>NASCAR: How Do Race Car Tires Take the Heat</u> <u>View this lesson's videos & digital activities.</u>	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
Final RC Car Project: <u>RC Prep & Race</u>	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	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

4.2	6.0 Accountability & Ethics			
6.1				
6.2				
7.0 Personal Responsibility				
7.2				

Resources:

<https://ellythorsenteaching.blogspot.com>

AZ CTE Curriculum Consortium

<https://edgefactor.com/>

<https://www.onetonline.org/>

<https://www.bls.gov>

<https://careerwise.minnstate.edu/careers/facility-mobile-equipment-maintenance-pathwayL.html>

<https://www.azed.gov/>

<https://www.nsta.org/nascar-kids#tab>

Scholastic.com

West-MEC

YouTube

Traxxas