

CAREERS IN THE CLASSROOM

A guide for Wisconsin educators to help connect classroom content to careers for students!



Career-connected, content-specific examples of lesson plans for K-12th grade teachers in Mathematics, Science, Social Studies, English, and World Languages



See how WI Regional Career Pathways can be incorporated into lessons in many different subject areas



Introduce students to a world of career possibilities and help them build confidence that they can become skilled in your content area as they see themselves in future related careers!

It works for students!

Students see examples of how their power skills such as communication, collaboration, and critical thinking can contribute to a number of career possibilities.

It works for teachers!

You can integrate career learning into your classroom by providing career related context for the content you teach.

Table of Contents








- [Math](#)
- [Science](#)
- [Social Studies](#)
- [English](#)
- [World Languages](#)
- [Career Based Learning Experiences for all Classrooms](#)
- [8th grade RCP lesson for ACP](#)

*All lessons linked in this document are part of WISELearnResources. To explore WISELearn Resources and find additional lessons, [click here](#).

Introduction

Working with consultants at the Wisconsin Department of Public Instruction, example lesson plans have been curated by CESA ACP consultants and grouped by grade level bands for several in-demand career areas. These lessons are meant to show how easy it can be to integrate career readiness into your classroom! You may find that you can use some of these examples directly. But, even if you can't, we hope that these examples give you ideas on ways you can modify or add on to your existing curriculum. This is not ONE MORE THING you need to do. It is simply serving up your content in the context of different careers so you can answer the famous student question "Why do I need to know this?"

Regional Career Pathway Symbols					
	Manufacturing		Architecture & Construction		Digital Technology
	Healthcare		Business Administration	These symbols are used throughout this guide to identify the career pathways highlighted in each lesson. Click here to learn more about WI's Regional Career Pathways.	









Mathematics Introduction:

The *Wisconsin Standards for Mathematics* (2021) were designed to be robust and relevant to the real world, reflecting the knowledge and skills that students need for success in college and careers. Standards include specific content knowledge alongside math practice standards that will enable students to reason abstractly and quantitatively; to construct viable arguments and appreciate and critique the reasoning of others; to use appropriate tools strategically; and to apply mathematics to solve everyday problems as they experience mathematics at home, school, and work. The standards call for empowering students to be thinkers and doers of mathematics and allow for students to be mathematically curious and gain a lifelong appreciation of mathematics and how mathematics is used to understand, critique, and create solutions for the world (NCTM 2020, 15).

The elementary years in mathematics are especially important in supporting students as they develop their identities as doers of mathematics. Building upon a children's natural curiosity and finding joy in mathematics is part of that process. Career study in the elementary grades therefore should be connected to exploration and interest. While it is important to continue to nurture each child's mathematical identity in the middle and high school years, it is also helpful to begin to think about what types of problems students like to work on and how those can support career pathways. In high school, typically the third or fourth year, there may be options for mathematics coursework that can more closely align to their career goals.

Finally, while considering the following chart of example lessons, keep in mind that mathematics can be found in all aspects of life and can be connected to problem solving and data analysis in many content areas. Be sure to consider the lessons found in the other content area charts of this document as well. Careers well suited for those with a passion and interest in mathematics might also be considered science or social studies careers.

- Mary Mooney & Julie Bormett, *Mathematics Consultants, WI Dept. of Public Instruction*




Mathematics			
Elementary Career Awareness (KNOW)	<u>Lesson</u> Students learn to identify parallel and intersecting lines and relate this to careers of architectural and civil drafters. 	<u>Lesson</u> Students learn how to count collections of objects and identify places in their community where they observe counting practices.	<u>Lesson</u> Students learn about the structure of picture graphs and bar graphs as they relate to a career in the health science industry. 
Middle School Career Exploration (EXPLORE)	<u>Lesson</u> Students will learn what a scaled drawing is and explore careers in architecture which require the skill of reading scaled drawings. 	<u>Lesson</u> Students will learn about money (coins) and percentages and consider careers in business where these are used. 	<u>Lesson</u> Students consider how scaled drawings apply to the careers of a registered nurse and a dental assistant. 
High School Career Planning (PLAN & GO)	<u>Lesson</u> Students will use the Pythagorean Theorem to calculate the length needed for a conveyor belt. 	<u>Lesson</u> Students use equations and constraints to solve problems related to the work of financial managers 	<u>Lesson</u> Students will use mathematical reasoning to solve problems for a dental office. 







Science Introduction:

The core statement of every Wisconsin science standard is that, “Students use disciplinary core ideas, science and engineering practices, and crosscutting concepts to make sense of phenomena and solve problems.” As students make sense of locally relevant phenomena and solve problems in their communities, they will be connecting to the real work of scientists and engineers. Therefore, when science learning is connected to the standards, students learn about science and engineering related jobs. Furthermore, when students personally conduct real-world science and engineering (the type without one right answer), they grow in their STEM identities. They can see themselves as a science and/or engineering person and build the self-efficacy to enter those careers and apply these ideas to their lives.

The resources below highlight the work of scientists and engineers. They are generally not a one-to-one match with science standards, but they provide excellent opportunities for connecting the science/engineering learning to the people doing it, which will further support the development of students’ STEM identities.

- Kevin Anderson, Science Consultant, WI Dept. of Public Instruction

Science			
Elementary Career Awareness (KNOW)	Lesson Students compare things found in nature vs manufactured. 	Lesson Students learn about wildlife habitats, environmental engineering, and the complexities of nest construction by attempting to design and build a nest themselves. Students consider the skills necessary to design a working product that meets a need. 	Lesson People use energy in all aspects of their lives, and much of this energy use takes place in buildings such as our homes. To save money and reduce the impact on our environment, many people are reducing their energy use. One way is to hire engineers to perform home energy audits to understand the ways we use energy and identify ways we can conserve energy. In this activity, students act as energy conservation engineers and identify the ways energy is conserved or wasted. They also learn many ways to personally conserve energy everyday. 

Middle School Career Exploration (EXPLORE)	<p><u>Lesson</u></p> <p>Students learn about components of steel and related careers.</p> 	<p><u>Lesson</u></p> <p>Students brainstorm ways that they use and waste natural resources. Also, they respond to some facts about population growth and how people use petroleum. Lastly, students consider the different ways that engineers interact with and use our natural resources. Also meet Dustin Madden, an Iñupiaq and assistant science teacher in the Anchorage, Alaska, school district, in this video profile produced by WGBH.</p> 	<p><u>Lesson</u></p> <p>Air pollution is commonly a result of human activities, but in turn can be harmful to human health and also the environment. Air pollution can make it more difficult to breathe, particularly for people who have asthma and for the elderly, but anyone who spends time outside can be affected by poor air quality. Exposure to air pollution can cause respiratory infections, heart disease, and lung cancer.</p> 
High School Career Planning (PLAN & GO)	<p><u>Lesson</u></p> <p>Students learn how biomedical engineers work with engineers and other professionals to develop dependable medical devices. Student teams ask, research, imagine, plan, create, test, and improve prototypes, then conduct repeated trials to test their devices for reliability, making improvements as necessary.</p> 	<p><u>Lesson</u></p> <p>Students explore becoming entrepreneurs within their own interest area, as it relates to science.</p> 	<p><u>Lesson</u></p> <p>Students use an engineering design process to prepare a sample of gluep that can best meet their criteria. This lesson encourages students to learn engineering design skills in a chemistry context focused on physical properties.</p> 

Social Studies Introduction:

Coming soon!



Social Studies			
Elementary Career Awareness (KNOW)			
Middle School Career Exploration (EXPLORE)			
High School Career Planning (PLAN & GO)			

English Introduction:

The Wisconsin state standards for English Language Arts (ELA) are uniquely designed to elevate the skills necessary to ensure that all students graduate from Wisconsin K-12 education institutions *College and Career ready*. The ELA Standards emphasize that literate individuals are flexible; they respond to the varying demands of audience, task, purpose, and discipline. Wisconsin Standards for English Language Arts include four distinct areas: reading, writing, speaking and listening, and language.

The ACP lessons included in this document reflect the collaboration of ELA content, standards, and career exploration. The expectation is that the ACP lessons are used collaboratively with curriculum and materials to broaden opportunities for students to see themselves as flexible users of ELA skills and content in and out of the classroom. The ACP lessons used as an instructional resource to scaffold, develop, and build connections for students in ELA provides an additional entry point for a diverse group of students to engage in ELA content successfully.

- Bianca Williams-Griffin, ELA Consultant, WI Dept. of Public Instruction










English			
Elementary Career Awareness (KNOW)	Lesson (K-2) Students will recognize that basic educational skills are necessary in community occupations. Lesson 3-5 Students use results of interest inventory to help explore career strengths and interests.	Lesson K-2 Students will brainstorm a list of school and community workers. Lesson 3-5 Student workbook guides students through career development concepts like self-knowledge, likes/dislikes, and how to interact with others.	Lesson K-2 Students explore different jobs throughout the community. Lesson 3-5 This is a career activity book that provides 22 activities on career exploration, student development, and critical thinking.
Middle School Career Exploration (EXPLORE)	Lesson Students will identify jobs known as “blue collar” and identify opportunities, advantages of these jobs, and explore labor market data. 	Lesson Students increase awareness of essential soft skills for success in the workplace.	Lesson Students will learn about a variety of health science careers and create a research project on one. 
High School Career Planning (PLAN & GO)	Lesson Students learn what cultural diversity means and why it is important in the workplace.	Lesson Students observe communication in the workplace and explain how communication skills are used in the workplace.	Lesson Students learn to understand generational differences in the workplace and work together.

World Language Introduction:

World language educators prepare students for success in our linguistically and culturally diverse workplaces and world. Global competence, including the ability to communicate and collaborate across languages and cultures benefits all students. Introducing language learners to the world of work and the role of languages within career contexts adds relevance to the curriculum. Learning experiences that include workplace language use help world language learners imagine their future selves as multilingual professionals and community members.

The demand for bilingual employees is well-documented and clearly communicated in the [Making Languages our Business Report](#) (2019). Exploring careers in the classroom encourages students to sustain language learning to reach [levels of proficiency needed for on-the-job use](#). When planning units and lessons, it is helpful to consider what occupations and employability skills connect with this learning. World language learning environments can support career awareness, exploration, and preparation in ways that inspire engaged and authentic language, intercultural and global learning. Teaching and learning resources are to be adapted for learning through the target language. Content in English might be assigned as homework for follow-up activities in the target language.

- Pam Delfosse, World Language Education Consultant, WI Dept. of Public Instruction

World Languages		
NOVICE	INTERMEDIATE	ADVANCED
World Languages As Career Skills Lessons 	Career Investigations Unit Job Shadow Reflection Form 	Global Competence Training Modules with Teacher Guides and Student Assignments 
Homes and Realtors Unit 	Sales Pitch Unit 	Marketing, Sales, and Services Language for Career and Community Purposes 
Career & Job Choices Flashcards 	Entrepreneurship and the Entrepreneurial Mind 	Patient Care Health Careers for Native Speakers, and Preparing to Serve - Patient Care Pathway 

Career Based Learning Experiences for all Classrooms

Academic and Career Planning is the process Wisconsin school districts use to make sure students are graduating career ready. Here is a quick review of what Academic and Career Planning (ACP) means and an overview of Career-Based Learning Experiences(CBLEs) that could be incorporated into any classroom.

ACP PROCESS	ACP COMPONENTS
KNOW Who am I? Get to know your interests, skills, and strengths.	ACP ACTIVITIES Lessons, activities, and software tools that guide K-12 students through the ACP process. They can take place in the classroom, out of school, or virtually, but do not involve employer engagement.
EXPLORE Where do I want to go? Explore careers and educational opportunities.	CAREER-BASED LEARNING EXPERIENCES An ACP activity that involves a business or employer partner.
PLAN How do I get there? Set your career, education, and financial goals. Choose courses and activities to further develop the academic and technical skills you will need.	
GO What support do I need to succeed? Identify resources and supports that will help you achieve your plan. Develop success skills.	

Career Based Learning Experiences (CBLE)

KNOW	EXPLORE	PLAN & GO
<ul style="list-style-type: none"> Classroom Speaker Company Tour Career Fair Career-related Project Part-time or Summer Job 	<ul style="list-style-type: none"> Job Shadow Career-related Volunteering or Service-learning CTSO or Career-related Out of School Activity 	<ul style="list-style-type: none"> Informational Interview Career Mentoring Simulated Worksite School-based Enterprise School Entrepreneurial Experience Supervised Agricultural Experience Internship or Local Co-op State Certified Co-op Youth Apprenticeship Program

*This is just a start! More ideas can be found in the Wisconsin's Guide to Implementing Career-based Learning Experiences, [linked here](#).

Finally, here are some general career exploration activities listed by grade level (taken from [Xello, 2021](#)) that can be adapted and incorporated into any content-area lesson or unit!

Career Exploration Activities for Elementary Grades

- Draw a map of businesses in your town and have students brainstorm jobs in each business
- Bag of Careers: fill a bag with tools or clothing worn or used “on the job” and have students guess the career area.
- Bring parents and community members to share what it’s like to do their jobs. Take special care to ensure diversity and an equitable gender spread
- Ask students to reflect on what they enjoy and then connect that to a career. Many educators assign a ‘poster project’ in which students create colorful posters to depict the career.
- Have students take note of the careers while on field trips to places like the museum, zoo, art gallery, or theater presentation. Ask hosts to share a little about their job as part of their presentations.

Career Exploration Activities for Middle Grades

As part of Career Development Month or even as a homework task in a careers course, students can interview a family member or someone from their community to learn about their job. Students should ask detailed questions such as:

- What a typical day is like
- Salary range
- Education requirements
- How/why they chose that career
- Which learning pathway may lead me to my future success?

Prompting Discussion Questions for Your Students

- What are some ways that people can learn the career and life skills they need after high school?
- What do you think is the most difficult part about deciding what kind of training to get after high school?
- Can you choose more than one learning pathway?
- Why might you want to take one learning pathway right after high school and one later in life?
- What are some reasons people go to college or university?
- What are some reasons people don’t go to college or university?
- Does learning stop right after you’re done with school or training?
- Why might someone want to keep learning as an adult who is working in a job?

Career Exploration Activities for High School

Prompting Discussion Questions for Your Students

- What is a career path?
- Do you picture a “path” as more of a ladder with one way to the top, or as a trellis with lots of ways to progress?
- What are some reasons a person might change careers?
- What career field(s) do your interests relate or connect to?
- What kinds of problems do you enjoy solving?

8th Grade Regional Career Pathway Lessons

<u>Milwaukee 7</u>	<u>Madison Region Economic Partnership (MadREP)</u>	<u>Prosperity Southwest</u>	<u>The New North</u>
<u>North Central</u>	<u>7 Rivers Alliance</u>	<u>The Great Northwest</u>	

To learn more about Wisconsin's Regional Career Pathways, visit <https://dpi.wi.gov/pathways-wisconsin>

