

STEM-Inspired Career Exploration Curriculum



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Table of Contents

Table of Contents	3
Curriculum Structure.....	4
Lesson Structure.....	4
Lesson One – Career Opportunities in Renewable Energy	5
FOCUS: Defining the Available Career Paths	6
LEARN: Research Project	9
REVIEW: Career Panel Discussion	11
Lesson Two – Careers in Additive Manufacturing	12
FOCUS: What is it?	13
LEARN: Design for Additive Manufacturing Challenge.....	15
REVIEW: Reflection	18
Lesson Three – Careers in Data Modeling.....	20
FOCUS: What Is Data Modeling?	21
LEARN: Data Modeling Deep Dive	23
REVIEW: Reflection	25
Lesson Four – Careers in Engineering	27
FOCUS: Automotive vs. Mechanical Engineering	28
LEARN: Engineer for a Day	30
REVIEW: Reflection	32

Curriculum Structure

The *STEM-Inspired Career Exploration Curriculum* consists of the following lessons, with approximate lesson times included.

Lesson	Title	Approximate Time
One	Career Opportunities in Renewable Energy	60-75 minutes
Two	Career in Additive Manufacturing	80-130 minutes
Three	Careers in Data Modeling	55-75 minutes
Four	Careers in Engineering	70-85 minutes
	Total	4-7 hours

Lesson Structure

Each lesson begins with a Lesson Overview, Lesson Objectives, and a Lesson at a Glance table, which lists the lesson activities, materials required, suggested preparation steps, and approximate class time.

Lesson Sections

The actual lesson follows the overview, which will contain some of the sections described below.

FOCUS

Every lesson begins with a FOCUS activity intended to capture participants' attention. This may be in the form of a small or large class discussion, game, review of previous lesson information, or demonstration. During this activity, participants are introduced to the topic of the lesson.

LEARN

The LEARN activity in each lesson varies in its presentation mode. It may be a slide presentation, group activity, or demonstration.

REVIEW

The majority of lessons end with a REVIEW activity intended to briefly review the lesson's key messages or main points.

Lesson One – Career Opportunities in Renewable Energy

Lesson Overview

In this lesson, participants will be introduced to careers relating to renewable energy. Participants will research and explore a variety of related careers in the pathway.

Lesson Objectives

After completing this lesson, participants will be able to:

- Identify several professions in renewable energy
- Consider if any of the occupations covered in class are appropriate for them to pursue

Lesson at a Glance

Activity	Materials	Preparation	Approximate Class Time
FOCUS	• <i>Renewable Energy Careers Notes</i> worksheet	1. Print/photocopy the <i>Renewable Energy Careers Notes</i> worksheet (one per participant).	10-15 minutes
LEARN	• Library and internet resources • <i>Career Exploration Research Summary</i> worksheet	2. Print/photocopy the <i>Career Exploration Research Summary</i> worksheet (one per participant).	30-90 minutes
REVIEW	• Questions for panel (optional)	1. Contact three to five local renewable energy professionals and invite them to participate in a panel discussion. 2. Set up the room with panel seating in the front and audience facing the panel.	45-60 minutes

Lesson One – Career Opportunities in Renewable Energy

FOCUS: Defining the Available Career Paths

10-15 minutes

Purpose:

Participants will learn the variety of occupational areas that fall within the renewable energy classification and how this translates into career opportunities.

Materials:

- *Renewable Energy Careers Note Sheet*

Facilitation Steps:

1. Give each student the *Renewable Energy Careers Note Sheet*. Have them take notes while you share the following definitions of the opportunities within renewable energy.

As the world seeks to limit carbon emissions and transition to a more sustainable energy system, renewable energy plays a crucial role. Many countries are investing in renewable technologies to meet energy demands while addressing environmental concerns. The shift towards renewable energy is essential for achieving global climate goals and ensuring a sustainable future for generations to come. This also leads to a wide variety of job opportunities.

2. Explore six exciting careers in the renewable energy sector. Each role contributes to a sustainable future and offers unique responsibilities and opportunities.

Wind Turbine Technician

- Install, inspect, maintain, and repair wind turbines
- Climb turbine towers to inspect blades and mechanical systems
- Troubleshoot electrical and hydraulic systems
- Perform routine maintenance to ensure optimal performance

Solar Photovoltaic (PV) Installer

- Install solar panels on rooftops or solar farms
- Connect panels to electrical systems and storage batteries
- Inspect and maintain solar systems for efficiency
- Interpret blueprints and technical diagrams

Renewable Energy Systems Engineer

- Design and optimize systems like solar arrays, wind farms, and hybrid energy setups
- Conduct feasibility studies and performance analysis
- Collaborate with architects and utility companies to integrate systems
- Ensure compliance with environmental and safety regulations

Energy Storage Specialist

- Develop and maintain battery storage systems (e.g., lithium-ion, hydrogen)
- Integrate storage with renewable energy sources
- Analyze data to optimize energy usage and reliability
- Work on grid integration and backup power solutions

Clean Energy Project Manager

- Oversee renewable energy projects from planning to execution
- Manage budgets, timelines, and teams
- Ensure projects meet technical and regulatory standards
- Coordinate with stakeholders and contractors

Energy Policy Analyst

- Research and analyze policies affecting renewable energy adoption
- Advise governments or organizations on sustainability strategies
- Monitor regulatory changes and assess their impact
- Advocate for clean energy initiatives

3. To learn more about renewable energy related career opportunities, share a video such as:

[Renewable Energy Careers: Sustainably Build Your Future | Top Green Jobs | Best Paid Clean Jobs](#) (4:10)

[Career Opportunities in the Renewable Energy Sector | Training, Trends, and Tips for Success](#) (17:40)

[A Day in the Life of a Solar Power Technician | Indeed](#) (5:44)

Renewable Energy Careers Notes

Occupations relating to renewable energy – What Is...?	Types of Duties
Wind Turbine Technician	
Solar Photovoltaic (PV) Installer	
Renewable Energy Systems Engineer	
Energy Storage Specialist	
Clean Energy Project Manager	
Energy Policy Analyst	

Lesson One – Career Opportunities in Renewable Energy

LEARN: Research Project

30-90 minutes

Purpose:

The purpose of this activity is to have participants take a closer look at related renewable energy career options. Participants will research an occupation of their choice. Information learned from the research will be shared with the group via a brief presentation.

Materials:

- Library and internet resources
- *Career Exploration Research Summary* worksheet

Facilitation Steps:

1. Have students choose one of the careers to explore further. Give students the *Career Exploration Research Summary* worksheet. Tell them that they can use the internet or other sources in the library for their research. Here are a few helpful websites:

- www.bls.gov
- <http://www.bls.gov/ooh/>
- www.careerinfonet.org

2. Give students one or two class periods to complete their research. You can also assign this as homework. Students should prepare a five-minute presentation about this career including the information on the summary sheet.

3. Have each student present their chosen renewable energy-related career to the group.

Here is a suggested grading rubric for the class presentation:

30 points – Completed all information on the *Career Exploration Research Summary* worksheet

20 points – Prepared for the presentation

20 points – Presentation content was clear and concise and provided a good understanding of the chosen career

20 points – Demonstrated the ability to think critically, taking information from other sources to create something new

10 points – Demonstrated time management skills by delivering a well-planned five-minute presentation

Name: _____ Date: _____

Career Exploration Research Summary

Instructions: Identify and research one career relating to renewable energy. Complete this worksheet for your career choice. Possible sources for information include your school library, public library, Bureau of Labor Statistics website, Occupational Outlook Handbook website, and other career-related websites on the internet.

Career name: _____

Degree or licenses required: _____

Length of time to complete training or earn degrees: _____

Average starting salary: _____

Job outlook: _____

Short job description:

Skills a person should have to be successful in this career:

Sources used for this project:

Lesson One – Career Opportunities in Renewable Energy

REVIEW: Career Panel Discussion

45-60 minutes

Purpose:

Students hear from renewable energy professionals who work in a variety of careers.

Materials:

- N/A

Facilitation Steps:

1. Contact local renewable energy businesses and invite them to attend a panel discussion in your class. Local professionals from a variety of related businesses provide additional and interesting perspectives.
2. The day of the panel discussion, set up your space so that there is a table with seating for all panel members at the front of the room. If sound is an issue, have a microphone available.
3. Invite participants in the audience to ask questions to panel members. Remind participants ahead of time to keep questions relevant to work. You may ask participants to submit questions in advance if desired.

Lesson Two – Careers in Additive Manufacturing

Lesson Overview

In this lesson, participants will explore an occupation in additive manufacturing. Participants will learn about typical job duties, pay, job outlook, and potential for several positions relating to being in additive manufacturing.

Lesson Objectives

After completing this lesson, participants will be able to:

- Identify what an additive manufacturer is and does
- Compare the roles and requirements of a variety of additive manufacturing-related careers
- Discuss the impact and job outlook of additive manufacturing jobs

Lesson at a Glance

Activity	Materials	Preparation	Approximate Class Time
FOCUS	• Additive Manufacturing videos (choose one) • <i>What is an Additive Manufacturer Notes</i>	1. Print/photocopy the <i>What is an Additive Manufacturer Notes</i> (one per participant). 2. Prepare to share videos	10-15 minutes
LEARN	• <i>Design for Additive Manufacturing Challenge</i> worksheet	1. Print/photocopy the <i>Design for Additive Manufacturing Challenge</i> worksheet (one per participant).	45-90 minutes
REVIEW	• <i>Career Collage</i> • Career Collage Graffiti Space (made with a large piece of bulletin board paper (six pieces total, 1 for each career) • Index cards • Glue • Markers	1. Before this activity, create a large poster space for each of the careers on the <i>Career Collage</i> page. Label each space with one of the career titles on the worksheet list.	25 minutes

Lesson Two – Careers in Additive Manufacturing

FOCUS: What is it?

10-15 minutes

Purpose:

Participants gain an overview of additive manufacturing is.

Materials:

- Additive manufacturing videos (choose one)
- *What is an Additive Manufacturer Notes*

Facilitation Steps:

1. Share these statistics for additive manufacturing with the participants:

- Total Industry Employment: Over 1.3 million professionals worldwide
- New Job Additions: More than 80,000 new jobs added in the past year
- Patents and Grants: Over 178,000 patents and nearly 5,700 grants awarded
- Investment Landscape: 8,440+ funding rounds from 7,100 investors across 2,660+ companies
- Total Investment Value: Over 7.3 billion from top investors
- These statistics highlight the significant growth and investment in the additive manufacturing industry, indicating a robust job market and a promising future for professionals in this field.

2. Define additive manufacturing for students.
Definition: Additive manufacturing is a process of creating three-dimensional (3D) objects by building them layer by layer from a digital model. It is commonly known as 3D printing.

Key Features

- Digital Design: The process starts with a computer-aided design (CAD) file
- Layer-by-Layer Construction: Material is deposited precisely where needed, layer upon layer
- Materials Used: Plastics, metals, ceramics, and even bio-materials

Common Applications

- Prototyping: Quickly creating models for testing and design validation
- Medical Devices: Custom prosthetics, implants, and dental devices
- Aerospace & Automotive: Lightweight parts with complex geometries
- Consumer Products: Custom jewelry, footwear, and electronics

Benefits

- Reduces material waste
- Enables complex and customized designs
- Speeds up product development cycles

Explain that they are going to watch a short video that introduces them to this as a career option.

3. Give students the *What is an Additive Manufacturer Note*. Play a few mental health counselor videos of your choice. Here are a few suggestions but there are many more available on YouTube.

[Additive Manufacturing and its role in the Job Opportunities](#) (4:20)

[JobsNOW: Additive manufacturing is a career with many](#) (2:22)

[Future Jobs: Additive Manufacturing | Learn about 3D printing careers](#) (1:00)

[What is additive manufacturing? | GE Additive](#) (1:19)

If you choose not to watch the video, you can have participants complete the note page using their own research or opinions on the answers.

4. After the video is done, go through the *What is an Additive Manufacturer Notes* and ask participants to share answers.

What is an Additive Manufacturer Notes

1. What qualities would a good additive manufacturing professional have?
2. How can you become an additive manufacturing professional?
3. What types of job tasks would you have as an additive manufacturer?
4. What kind of job market is there currently for additive manufacturing?
5. What would be the most difficult part of working in additive manufacturing?

Lesson Two – Careers in Additive Manufacturing

LEARN: Design for Additive Manufacturing Challenge

45-90 minutes

Purpose:

Students will explore the principles of additive manufacturing by designing a simple product prototype, considering constraints like material use, print time, and functionality.

Materials:

- *Design for Additive Manufacturing Challenge* worksheet

Facilitation Steps:

1. Give students the *Design for Additive Manufacturing Challenge* worksheet and have them complete it.

Design for Additive Manufacturing Challenge

Welcome to Your First Job in Additive Manufacturing!

You've just been hired as a Junior Product Designer at a company that specializes in 3D-printed consumer products. Your first assignment is to design a custom keychain that reflects a brand's identity and can be printed efficiently.

Your Mission:

Design a keychain that meets the following qualifications:

- Is no larger than 60mm x 30mm x 5mm
- Uses minimal material
- Can be printed in under 30 minutes
- Includes a logo or initials
- Has a hole for a keyring

1. Research Phase (15 mins) Use your textbook, the internet, or class notes to answer these questions.

What is additive manufacturing?

What are the benefits and limitations of 3D printing?

What materials are commonly used?

2. Design Phase (30 mins)

Sketch your keychain design on paper or using a digital tool (e.g., Tinkercad, Fusion 360).

- Label the dimensions
- Indicate where the keyring hole will go
- Show any text or logo

3. Production Planning (15 mins)

What material would you use and why?

How long do you estimate it will take to print?

What challenges might arise during printing?

4. Presentation

Present your design to the class or submit a short video explaining your choices.

Reflection Questions:

What did you learn about the design constraints in additive manufacturing?

How does AM differ from traditional manufacturing?

What skills do you think are important for someone working in this field?

Lesson Two – Careers in Additive Manufacturing

REVIEW: Reflection

25 minutes

Purpose:

Participants will reflect on the different paths you can take for a career in additive manufacturing. They will research to assess their desire for a career in one of these areas.

Materials:

- *Career Collage*
- *Career Collage Graffiti Space* (made with a large piece of bulletin board paper (six pieces total, one for each career))
- Index cards
- Glue
- Markers

Facilitation Steps:

1. Before this activity, create an ample poster space for each career on the *Career Collage* worksheet. Label each area with one additive manufacturing career title. Here are a few examples but there are many more:

Additive Manufacturing Engineer – Designs and optimizes parts for 3D printing processes

Design for Additive Manufacturing (DfAM) Specialist – Focuses on creating designs specifically suited for AM technologies

Process Engineer (AM) – Develops and improves AM production processes

Materials Scientist – Researches and develops new materials for AM, such as polymers, metals, and composites

Quality Assurance Engineer – Ensures printed parts meet specifications and standards

Machine Operator/Technician – Operates and maintains 3D printers and post-processing equipment

CAD Designer/3D Modeler – Creates digital models for printing using software like SolidWorks, Fusion 360, or Rhino.

2. Give participants the *Career Collage* worksheet. Ask participants what they think a career collage might look like.
3. Explain that each participant will choose one of the additive manufacturing-related careers on the list provided or one of their own.
4. Explain to participants that they will have about 15 minutes to research one of these careers and take some notes.
5. Students will use the markers, index cards, and *Career Collage* worksheet to add to their *Career Collage Graffiti Space*. Encourage participants to write keywords and draw related images to create a graffiti wall all about the career they selected.

All participants will be working on the graffiti wall that goes with their chosen career, so that multiple participants will work individually but on the same graffiti wall space.
6. Allow participants time to research their selected careers and then use the index cards and other resources to complete the *Career Collage Graffiti Space*.

Career Collage

Instructions: Choose one of the careers listed below or one of your own. Use the space provided to research key facts about the career. Collect as much information as possible to assist you in creating the Career Collage Graffiti Wall. After completing the research, use the index cards, markers, etc. to add to the graffiti wall that corresponds to the career you selected from the list below. Take information from the research notes below.

Additive Manufacturing-Related Career Options: (choose one and circle it)

Additive Manufacturing Engineer
Design for Additive Manufacturing (DfAM)
Specialist
Process Engineer (AM)
Materials Scientist

Quality Assurance Engineer
Machine Operator/Technician
CAD Designer/3D Modeler

Other: _____

Main Duties:	Required Training:
Job Outlook:	Other:

Lesson Three – Careers in Data Modeling

Lesson Overview

In this lesson, participants will explore a career in data modeling. Participants will learn about typical job duties, pay, job outlook, and potential for several positions relating to being a data modeling professional.

Lesson Objectives

After completing this lesson, participants will be able to:

- Identify what a data modeling professional is and does
- Describe what a typical day is like for a data modeling analyst
- Determine if this is a career path that could be a good choice for them

Lesson at a Glance

Activity	Materials	Preparation	Approximate Class Time
FOCUS	• A Day in the Life of a Data Modeling Professional video • <i>A Day in the Life of a Data Modeling Professional Notes</i>	1. Print/photocopy the <i>A Day in the Life of a Data Modeling Professional Notes</i> (one per participant).	10-15 minutes
LEARN	• <i>Creating an Infographic: What's the Data Modeling Buzz?</i> worksheet • <i>Careers Relating to Data Modeling</i> worksheet • Internet access	1. Print/photocopy the <i>Creating an Infographic: What's the Data Modeling Buzz?</i> worksheet (one per participant). 2. Model infographic sample websites.	45 minutes
REVIEW	• <i>Data Modeling Is/Is Not the Career Field for Me</i> worksheet	1. Print/photocopy the <i>Data Modeling Is/Is Not the Career Field for Me</i> worksheet.	20 minutes

Lesson Three – Careers in Data Modeling

FOCUS: What Is Data Modeling?

10-15 minutes

Purpose:

Students are introduced to careers in data modeling.

Materials:

- A Day in the Life of a Data Modeling Professional video
- *A Day in the Life of a Data Modeling Professional Notes*

Facilitation Steps:

1. Share these statistics with the participants:
Median Annual Wage: Data scientists earned a median annual wage of \$112,590 in May 2024.

Job Growth: Employment of data scientists is projected to grow 34 percent from 2024 to 2034, much faster than the average for all occupations.

Openings: About 23,400 openings for data scientists are projected each year, on average, over the decade.

Salary Predictions: The median salary for data engineers in the United States could reach about USD 170,000 by 2026.

2. Ask participants what they think a typical day is like in the life of a data modeling professional and distribute the *A Day in the Life of a Data Modeling Professional Notes* worksheet.
3. Have participants complete the column about what they already know and what they would like to know about a career in data modeling.
4. Play the *A Day in the Life of a Data Modeling Professional video*.

[Shortened: S4 Area specific Jean Minneapolis STY1 16x9 TA COU Video Oct24 D2 KRM](#)
(18:58)

[What is Data Modeling? | IDERA Data University](#) (1:21)

[What do Data Engineers actually do?](#) (5:58)

[Data Modeler Job Insights: Roles and Responsibilities of a typical Data Modeler](#)
(3:35)

[What is the role of a Data Modeler ? | Career Guide - Job Description - Responsibilities](#)
(5:22)

It may be useful to preview the *Day in the Life of a Data Modeling Professional Notes* before watching the video. Have participants complete the third column identifying what they have learned in the video clip.

5. After the video is done, go through the *A Day in the Life of a Data Modeling Professional Notes* and ask participants to share answers.

A Day in the Life of a Data Modeling Professional Notes

Instructions: Identify what you already know about being a data modeler what you want to know and what you have learned during the lesson.

Know	Want to Know	Learned

Lesson Three – Careers in Data Modeling

LEARN: Data Modeling Deep Dive

30-45 minutes

Purpose:

The purpose of this activity is to help participants better understand what data modeling professionals do.

Materials:

- *Creating an Infographic: What's the Data Modeling Buzz?*
- Internet access

Facilitation Steps:

1. Distribute the *Creating an Infographic: What's the Data Modeling Buzz?* worksheet and explain to participants that they will make a digital infographic about this career field.
2. Share a sample infographic so they understand the look and feel of a typical infographic.

[improve-your-data-modeling-skills-scaled.jpg](#)
(320×2560)

[Vector-Infographic-Templates-1.jpg](#)
(2000×2000)

3. Encourage participants to make sure their infographics include the required information. Using color, images, and a unique layout will make the infographic visually appealing for others.
4. Have participants print and post their infographics in a conspicuous location for use during the REVIEW part of the lesson. Allow time for participants to view infographics created by their peers.

Creating an Infographic: What's the Data Modeling Buzz?

What is an infographic?

An infographic is a collection of pictures, charts, and text that gives an easy-to-understand overview of this occupation.

As you prepare to make your digital infographic, use the Internet to research the following information:

- ☐ Career as a data modeling professional
- ☐ Education requirements
- ☐ Primary job tasks/responsibilities
- ☐ Professional organizations
- ☐ Work environment

Other requirements:

- ☐ At least one image or chart
- ☐ Neatness
- ☐ Use of some color
- ☐ Creative layout
- ☐ Large enough fonts for ease of reading information

Lesson Three – Careers in Data Modeling

REVIEW: Reflection

20 minutes

Purpose:

Participants will reflect on what they have learned about being a data modeling professional and decide if this career is one they would be interested in pursuing.

Materials:

- *Data Modeling Is/Is Not the Career Field for Me*
- Infographics created and posted by participants in the LEARN portion of the lesson

Facilitation Steps:

1. Distribute the *Data Modeling Is/Is Not the Career Field for Me* worksheet.
2. Instruct participants to review *Data Modeling Is/Is Not the Career Field for Me*. As participants walk through the gallery and look at different participants' infographics, they will respond to facts they observe on the infographic.

Based on the number of participants/infographics to review, provide about 15 minutes for this activity.

3. Once participants have completed *Data Modeling Is/Is Not the Career Field for Me*, provide an opportunity for them to discuss what they recorded in each section of the worksheet.
4. Allow participants to share their thoughts about a career in data modeling before wrapping up this lesson. Specific questions might include: What would you enjoy? What would you find the most challenging?

Data Modeling Is/Is Not the Career Field for Me

Instructions: Record information from the infographics in the spaces provided. Circle in the title if this career is or is not for you.

This is interesting!	Shocking Info?!?!?	Is this for real?
I want to know more about this:	This sounds like something I would like:	I am not too sure about this:
I have a question:	I want to remember this:	Other (you choose):

Lesson Four – Careers in Engineering

Lesson Overview

In this lesson, students will explore careers in engineering by comparing the roles and requirements of automotive and mechanical engineers. Through three interactive activities, learners will identify typical job duties performed by engineers, analyze similarities and differences between these fields, and gain insight into the skills needed for success.

Lesson Objectives

After completing this lesson, participants will be able to:

- Compare the roles and requirements of careers in automotive and mechanical engineering
- Identify typical job duties performed by engineers on the job

Lesson at a Glance

Activity	Materials	Preparation	Approximate Class Time
FOCUS	• Automotive and mechanical engineering videos • <i>Pros and Cons</i> worksheet	1. Print/photocopy the <i>Pros and Cons</i> worksheet (one per participant). 2. Prepare to share videos.	15-25 minutes
LEARN	• <i>Engineer for a Day</i> worksheet • Internet access	1. Print/photocopy the <i>Engineer for a Day</i> worksheet (one per participant).	20-30 minutes
REVIEW	• <i>Automotive or Mechanical Engineering Career Investigation Station</i> worksheet	1. Print/photocopy the <i>Automotive or Mechanical Engineering Career Investigation Station</i> worksheet (one per participant).	20 minutes

Lesson Four – Careers in Engineering

FOCUS: Automotive vs. Mechanical Engineering

15-25 minutes

Purpose:

This lesson will take a look at what it is like to work in two related but different areas: automotive and mechanical engineering.

Materials:

- Automotive and mechanical engineering videos
- *Pros and Cons*

Facilitation Steps:

1. Share these statistics with the participants:

The automotive engineering job market is expected to grow by 10 percent between 2022 and 2032, which is considered faster than average. The Bright Outlook designation from O*NET confirms that automotive engineering is projected to grow 5 percent or more from 2024 to 2034, indicating strong demand.

Projected Growth Rate: 9%, which is much faster than average for all occupations.

Employment Change: Expected to add 26,500 new jobs over the decade.

Annual Openings: Approximately 18,100 openings per year, mostly due to retirements and career changes.

2. Ask participants how they think working in engineering in these two different fields compares. Share the information in these videos about the differences.

[Automotive Engineering | Careers and Where to Begin](#)

[What is Automotive Engineering? Automobile vs. Automotive Engineering: What's the Difference?](#)

[What is Mechanical Engineering?](#)

[So You Want to Be a MECHANICAL ENGINEER | Inside Mechanical Engineering \[Ep. 11\]](#)

[Essential Skills Every Mechanical Engineering Fresher Must Learn](#)

<https://www.youtube.com/watch?v=W74y1RxN6BA>

Distribute the *Pros and Cons* worksheet. Have students use the internet or use their own background knowledge to complete this worksheet.

3. After the video is done, go through the *Pros & Cons* worksheet and ask participants to share answers.

Pros and Cons:

Automotive or Mechanical

Instructions: Record pros and cons for each career in the respective spaces.

Automotive Engineering Careers	
Pros:	Cons:
Mechanical Engineering Careers	
Pros:	Cons:

Lesson Four – Careers in Engineering

LEARN: Engineer for a Day

20-30 minutes

Purpose:

The purpose of this activity is to have participants better understand what it is like to be an engineer on a typical workday.

Materials:

- *Engineer for a Day*
- Internet access

Facilitation Steps:

1. Have participants access the *Engineer for a Day* worksheet.
2. Explain to participants that using the internet and their knowledge, they will create a detailed journal for what their day might be like.
3. Encourage participants to make sure their detailed journal entries contain accurate information for working as either an automotive or a mechanical engineer.
4. If time allows share the video A Day in the Life
 - [What Does a Mechanical Engineer Do? | Day in the Life of a Mechanical Engineer](#)
 - [Day at Work: Mechanical Engineer](#)
 - [What Automotive/Mechanical Engineers Do | Short and To The Point](#)
 - [A day in a life of a Design Engineer](#)
5. Divide participants into groups of four and have them discuss what they wrote on their worksheet.

Engineer for a Day

Instructions: Use the space provided to record the details of your day as an automotive or mechanical engineer. Use personal knowledge and the Internet information to make your journal sound as interesting and accurate as possible.

Time	Activity	My Reaction

Lesson Four – Careers in Engineering

REVIEW: Reflection

20 minutes

Purpose:

Participants will reflect on the different careers in engineering. They will complete a short research project to learn more about career opportunities.

Materials:

- *Automotive or Mechanical Engineering Career Investigation Station*

Facilitation Steps:

1. Distribute the *Automotive or Mechanical Engineering Career Investigation Station* worksheet.
2. Instruct participants to complete a short research project to learn more about this career path.
3. Once participants have completed the *Automotive or Mechanical Engineering Career Investigation Station* worksheet, have them discuss what they recorded in each worksheet section.
4. Allow participants to share their thoughts about these two careers before wrapping up this lesson. Specific questions can be: What would you find most interesting? What would be the most challenging for you?

Automotive or Mechanical Engineer Career Investigation Station

Instructions: Use the Internet to research more about a career in automotive, mechanical, or other STEM-related engineering.

Choose the type of occupation you wish to investigate: Automotive Engineer Mechanical Engineer Civil Engineer Biomedical Engineer Petroleum Engineer Environmental Engineer Other:	Job Description (list at least 3 requirements): 1. 2. 3. 4. 5.
Required Training:	