

UNIT 3 – CHOOSING A MAJOR

OVERVIEW

Middle school and high school students will view video clips from In Their Own Words: Deaf College Students in STEM Programs: Introduction to STEM that focus on learning more about the differences between high school and college and what is involved when a student goes to college and what to expect when majoring in a STEM related field.

OBJECTIVES:

- Help high school student see what it is like being in college and majoring in a STEM-related field.

KEY VOCABULARY

- [Visit Link for List.](#)

ADDITIONAL RESOURCES

- [Visit Link for List.](#)

LESSON PLANS

Lesson 15: Introduction to STEM
Lesson 16: Meeting Deaf and Hard of Hearing College Students who are STEM Majors
Lesson 17: Exploring STEM College Majors
Lesson 18: Transition from High School to College
Lesson 19: Communication Access in College Classrooms
Lesson 20: Communication with Peers and Co-Workers
Lesson 21: A Typical Day in College
Lesson 22: The Importance of English Skills
Lesson 23: Interviewing Skills
Lesson 24: Family Backgrounds
Lesson 25: Life Goals
Lesson 26: Learning American Sign Language
Lesson 27: Words of Advice
Lesson 28: STEM College Planning Resources

LESSON PLAN 15: INTRODUCTION TO STEM

LESSON OBJECTIVES

- Help students see what it is like being in college and majoring in a STEM-related field.

ACTIVITY TIME

- Two to Five 50 minute class periods.

TARGET GRADE

- Adaptable for 6th through 12th grade.

MATERIAL LIST

- At least one computer with a projector for class to view.

KEY VOCABULARY

- [Visit Link for List.](#)

ONLINE RESOURCES

- [Visit Link for List.](#)

CORE STANDARDS

- [Visit Link for List.](#)

ACTIVITY

Watch DeafTEC video: [In Their Own Words: Deaf College Students in STEM Programs: Introduction to STEM](#)

Break out into groups and discuss the following questions.

1. What does STEM stand for?
2. Why do you think there aren't enough students in STEM majors?
3. Why do we need more students to major in STEM areas?
4. What are some examples of STEM majors?
5. Do STEM majors earn more than non-STEM majors?
6. What is the highest paying degree of all STEM options?

LESSON PLAN 16: MEETING DEAF AND HARD OF HEARING COLLEGE STUDENTS WHO ARE STEM MAJORS

LESSON OBJECTIVES

- Meet Deaf and Hard of Hearing college students who are in STEM majors.

ACTIVITY TIME

- Up to Five 50 minute class periods.

TARGET GRADE

- Adaptable for 6th through 12th grade.

MATERIAL LIST

- Computers with Internet access.
- Paper and Pencils.

KEY VOCABULARY

- [Visit Link for List.](#)

ONLINE RESOURCES

- [Visit Link for List.](#)

CORE STANDARDS

- [Visit Link for List.](#)

ACTIVITY

Watch DeafTEC video: [In Their Own Words: Deaf College Students in STEM Programs: Meeting Deaf and Hard of Hearing College Students who are STEM majors.](#)

- a. Click on the picture of the individual students from the video and learn more about their background and current major as well as where they go to school.
- b. Students will research selected careers on the Internet that they may be interested in pursuing. Students will then use multiple on-line resources to explore different career resources before doing a vlog or writing an essay about their future career as a STEM professional.
- c. Students will create a PowerPoint presentation to present their findings to the class.

LESSON PLAN 17: EXPLORING STEM COLLEGE MAJORS

LESSON OBJECTIVES

- Give students a broad overview of the four wide-ranging concepts that make up STEM as they translate into college majors.
- Explore college majors: Science, Technology, Engineering and Mathematics.

ACTIVITY TIME

- Three to Five 50 minute class periods.

TARGET GRADE

- Adaptable for 6th through 12th grade.

MATERIAL LIST

- Computers with Internet access.
- Paper and Pencils.

KEY VOCABULARY

- [Visit Link for List.](#)

ONLINE RESOURCES

- [Visit Link for List.](#)

CORE STANDARDS

- [Visit Link for List.](#)

ACTIVITY

Watch DeafTEC Video Series: [In Their Own Words: Deaf College Students in STEM Programs: Exploring STEM College Majors.](#)

1. Using the word STEM, select either Science, Technology, Engineering or Math to investigate potential careers and how much people can earn when working in one of those areas.
2. You can select your own internet resource to use or use any of the following internet resources for this activity:
 - [EGFI: Mechanical](#)
 - [EGFI: Teacher Resources](#)
 - [EGFI: Grade 6-8 Lesson Plans](#)
 - [EGFI: Grade 9-12 Lesson Plans](#)
 - [Staying organized](#): Basic schedule to plan ahead.
 - [Getting In](#): engineering major in college.
 - [Overview of Employment and Wages in STEM](#)
 - [STEM Career: Students](#)
 - [Career Cornerstone Center: Engineering](#)
 - [Career Cornerstone Center: Mathematics](#)
 - [Truity: Mathematician](#)
3. Break up into groups and discuss the following questions:
 - A. What are some of the skills necessary to have when majoring in STEM areas?
 - B. Is it ok to choose one major now and change your mind later?
 - C. Why it is important to have patience when majoring in a STEM area?
 - D. How do personal experiences contribute to why you may decide to pursue a career in a certain area?
 - E. How did taking advantage of summer programs or internships help some of the students?

LESSON PLAN 18: TRANSITION FROM HIGH SCHOOL TO COLLEGE

LESSON OBJECTIVES

- To become familiar with some of the differences between high school and college.
- To be aware of the advice the students gave when preparing for college.
- To learn the importance of developing a good study habits when in high school.

ACTIVITY TIME

- Three to Five 50 minute class periods.

TARGET GRADE

- Adaptable for 6th through 12th grade.

MATERIAL LIST

- At least one computer with a projector for class to view.
- Paper and Pencils.

KEY VOCABULARY

- [Visit Link for List.](#)

ONLINE RESOURCES

- [Visit Link for List.](#)

CORE STANDARDS

- [Visit Link for List.](#)

ACTIVITY

Watch DeafTEC Video Series: [In Their Own Words: Deaf College Students in STEM Programs: Transition from High School to College.](#)

Discuss the following questions as a group or in small groups.

1. What are some differences between high school and college?
2. What were some things that the students would have done differently when they were in high school to help prepare for college?
3. What was some advice that the students gave that you should remember when preparing for college?
4. Why is it important to develop good study habits when in high school?
5. Who can you ask for help when you are trying to figure out what you need to do to prepare for college?
6. Do all students live away from home when they go to college?

LESSON PLAN 19: COMMUNICATION ACCESS IN COLLEGE CLASSROOMS

LESSON OBJECTIVES

- Develop strategies to use when an interpreter uses a new sign or math concept you don't understand.
- Understand the importance of using an interpreter who has background or familiarity with the subject you are learning.

ACTIVITY TIME

- Three to Five 50 minute class periods.

TARGET GRADE

- Adaptable for 6th through 12th grade.

MATERIAL LIST

- Computers with Internet access.
- Paper and Pencils.

KEY VOCABULARY

- [Visit Link for List.](#)

ONLINE RESOURCES

- [Visit Link for List.](#)

CORE STANDARDS

- [Visit Link for List.](#)

ACTIVITY

Watch DeafTEC Video Series: [In Their Own Words: Deaf College Students in STEM Programs: Communication Access in College Classrooms.](#)

Discuss the following questions as a group or in small groups.

1. What are some strategies the students recommended you use if the interpreter uses a new signs or math concepts that you do not understand?
2. Why is it better to have an interpreter who has some background or familiarity with the subject you are learning?

LESSON PLAN 20: COMMUNICATION WITH PEERS AND CO-WORKERS

LESSON OBJECTIVES

- Become familiar with ways you can communicate with people who are not familiar with ASL.
- Learn some strategies you can use when you have no interpreter available and you need to interact with a co-worker or attend a meeting.

ACTIVITY TIME

- Three 50 minute class periods.

TARGET GRADE

- Adaptable for 6th through 12th grade.

MATERIAL LIST

- Computers with Internet access.
- Paper and pencils.

KEY VOCABULARY

- [Visit Link for List.](#)

ONLINE RESOURCES

- [Visit Link for List.](#)

CORE STANDARDS

- [Visit Link for List.](#)

ACTIVITY

Watch DeafTEC Video Series: [In Their Own Words: Deaf College Students in STEM Programs: Communication with Peers and Co-Workers.](#)

Break up into groups and discuss the following questions:

1. What are some different ways that you can communicate with hearing people that do not know ASL?
2. What do you do if an interpreter is not available for a conversation with a co-worker or during a meeting at work?
3. How did Asher suggest you could work with an employer who is resistant to hiring an interpreter?
4. What are some strategies you can use to help hearing people feel more comfortable interacting with you with or without an interpreter?

LESSON PLAN 21: A TYPICAL DAY IN COLLEGE

LESSON OBJECTIVES

- Learn strategies that can help you structure your daily schedule and planning for assignment completion.
- Learn strategies to help you better balance fun activities along with work and school responsibilities.

ACTIVITY TIME

- Three 50 minute class periods.

TARGET GRADE

- Adaptable for 6th through 12th grade.

MATERIAL LIST

- Computers with Internet access.
- Paper and Pencils.

KEY VOCABULARY

- [Visit Link for List.](#)

ONLINE RESOURCES

- [Visit Link for List.](#)

CORE STANDARDS

- [Visit Link for List.](#)

ACTIVITY

Watch DeafTEC Video Series: [In Their Own Words: Deaf College Students in STEM Programs: Typical Day in College.](#)

Break up into groups and discuss the following questions:

1. What strategies will you use to structure your schedule everyday and make sure you finish all your assignments?
2. What do you think would be your ideal schedule? Do you plan to work while in school?
3. How do you think you can balance fun activities along with work and school responsibilities?
4. What are some healthy habits you can develop now that will help you in college?

LESSON PLAN 22: THE IMPORTANCE OF ENGLISH SKILLS

LESSON OBJECTIVES

- Learn the reasons why English skills might be important for success in college and future career.
- Discuss strategies that you can use to improve your English skills.

ACTIVITY TIME

- Two 50 minute class periods.

TARGET GRADE

- Adaptable for 6th through 12th grade.

MATERIAL LIST

- Computers with Internet access.
- Paper and Pencils.

KEY VOCABULARY

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ONLINE RESOURCES

- [Visit Link for List.](#)

CORE STANDARDS

- [Visit Link for List.](#)

ACTIVITY

Watch DeafTEC Video Series: [In Their Own Words: Deaf College Students in STEM Programs: The Importance of English Skills.](#)

Discuss the following questions:

1. Are English skills important for success in college? In your job? Why?
2. What are ways that you can improve your English skills that would be enjoyable for you?

LESSON PLAN 23: INTERVIEWING SKILLS

LESSON OBJECTIVES

- Learn the important skills necessary when interviewing for a potential job.
- Understand the steps required when preparing for a job interview.

ACTIVITY TIME

- Two 50 minute class periods.

TARGET GRADE

- Adaptable for 6th through 12th grade.

MATERIAL LIST

- Computers with Internet access.
- Paper and Pencils.

KEY VOCABULARY

- [Visit Link for List.](#)

ONLINE RESOURCES

- [Visit Link for List.](#)

CORE STANDARDS

- [Visit Link for List.](#)

ACTIVITY

Watch DeafTEC Video Series: [In Their Own Words: Deaf College Students in STEM Programs: Interviewing Skills.](#)

1. Take turns role playing the job interviewing process.
2. Break up into groups and discuss:
 - A. What are the most important points you have gathered from the video?
 - B. What advice would you give a friend who is interviewing for their first job?

LESSON PLAN 24: FAMILY BACKGROUNDS

LESSON OBJECTIVES

- Become aware of the various ways your family has assisted you to reach your goals.
- Better understand how your life experience have shaped your long term education and career goals.

ACTIVITY TIME

- One 50 minute class periods.

TARGET GRADE

- Adaptable for 6th through 12th grade.

MATERIAL LIST

- Computers with Internet access.
- Paper and Pencils.

KEY VOCABULARY

- [Visit Link for List.](#)

ONLINE RESOURCES

- [Visit Link for List.](#)

CORE STANDARDS

- [Visit Link for List.](#)

ACTIVITY

Watch DeafTEC Video Series: [In Their Own Words: Deaf College Students in STEM Programs: Family Backgrounds.](#)

Discuss the following questions:

1. How has your family helped / supported you in your goals?
2. How do you think your life experience has shaped your long term education and career goals?

LESSON PLAN 25: LIFE GOALS

LESSON OBJECTIVES

- To be able to discuss future career and life goals you may have over the next 5 years.
- Become aware of work environment options that may be a good match for you.

ACTIVITY TIME

- Three 50 minute class periods.

TARGET GRADE

- Adaptable for 6th through 12th grade.

MATERIAL LIST

- Computers with Internet access.
- Paper and Pencils.

KEY VOCABULARY

- [Visit Link for List.](#)

ONLINE RESOURCES

- [Visit Link for List.](#)

CORE STANDARDS

- [Visit Link for List.](#)

ACTIVITY

Watch DeafTEC Video Series: [In Their Own Words: Deaf College Students in STEM Programs: Life Goals.](#)

Discuss the following questions:

1. What kind of goals do I see for myself over the next 5 years?
2. Do you see yourself primarily working within the Deaf community? Hearing community? Or both?
3. How do you see yourself contributing to the world? The Deaf community? To your family?

LESSON PLAN 26: LEARNING AMERICAN SIGN LANGUAGE

LESSON OBJECTIVES

- Help students see that not every Deaf or Hard of Hearing student is fluent in ASL before starting college.
- See the benefits of learning ASL, even later in life.
- See that learning ASL later in life is still possible.

ACTIVITY TIME

- One 50 minute class periods.

TARGET GRADE

- Adaptable for 6th through 12th grade.

MATERIAL LIST

- Computers with Internet access.
- Paper and Pencils.

KEY VOCABULARY

- [Visit Link for List.](#)

ONLINE RESOURCES

- [Visit Link for List.](#)

CORE STANDARDS

- [Visit Link for List.](#)

ACTIVITY

Watch DeafTEC Video Series: [In Their Own Words: Deaf College Students in STEM Programs: Learning American Sign Language.](#)

Discuss the following questions:

1. What would it be like to go to college as a Deaf or Hard of Hearing student who have not yet learned sign language?
2. What are some benefits of using interpreters in college?
3. Why did Amanda advise students to take ASL if offered in their college?

LESSON PLAN 27: WORDS OF ADVICE

LESSON OBJECTIVES

- Learn about possible barriers that could prevent you from going to college.
- Be aware of how influences in your life can impact the decisions you make related to your major in college and career selections.

ACTIVITY TIME

- Two 50 minute class periods.

TARGET GRADE

- Adaptable for 6th through 12th grade.

MATERIAL LIST

- Computers with Internet access.
- Paper and Pencils.

KEY VOCABULARY

- [Visit Link for List.](#)

ONLINE RESOURCES

- [Visit Link for List.](#)

CORE STANDARDS

- [Visit Link for List.](#)

ACTIVITY

Watch DeafTEC Video Series: [In Their Own Words: Deaf College Students in STEM Programs: Words of Advice.](#)

Discuss the following questions:

1. What barriers do you see that might prevent you from going to college?
2. What influences from your life impact your interest in choosing your major?

LESSON PLAN 28: STEM COLLEGE PLANNING RESOURCES

LESSON OBJECTIVES

- Help high school students start thinking about career goals after high school and / or college.

ACTIVITY TIME

- Three 50 minute class periods.

TARGET GRADE

- Adaptable for 6th through 12th grade.

MATERIAL LIST

- Computers with Internet access.
- Paper and Pencils.

KEY VOCABULARY

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ONLINE RESOURCES

- [Visit Link for List.](#)

CORE STANDARDS

- [Visit Link for List.](#)

ACTIVITY

Review the following videos and complete the interactive questions on the websites.

To access the [Map It: What comes next?](#) You'll need to sign up for an account with DCMP. You will be asked if you qualify for a full account. On your application it will ask you how you plan to use these videos. You can indicate that you work within an educational setting with Deaf and Hard of Hearing students.

[Map It: What Come Next](#) is a free online interactive training designed for transition aged students who are deaf or hard of hearing. Video vignettes signed in ASL with spoken English and written transcription, self-assessments, and a series of interactive questions guide students as they identify their goals and develop strategies to achieve them.

Other Links to Visit:

[National Technical Institute for the Deaf at RIT](#)

[Gallaudet University](#)

[Career Cornerstone Center: Universities](#)