

LEARNING OBJECTIVES

In this lesson, students will:

- Apply active listening skills to learn about a variety of occupations that rely on strong mathematical skills for successful job performance.
- Participate in a whole-class discussion to brainstorm other occupations that depend on strong mathematical knowledge and analytical thinking skills, and examples of workplace scenarios in which these skills might come in handy.
- Navigate the MajorClarity platform to research three math-related occupations and determine the following information: *average annual wage*, *state-level job presence*, *common tasks*, *career work styles*, and *related careers*.
- Complete a “test drive” activity for each of the following pathways to determine and rate compatibility: **Mathematics**, **Insurance**, and **Mechanical Engineering**.

MATERIALS

This lesson requires:

- Student computer access (class set of headphones/earbuds recommended)
- Teacher computer access w/ A/V presentation capabilities
- Web browser (*Chrome, Firefox, Edge* recommended)
- **Careers in Math (HS) Teaching Guide**
- **Careers in Math (HS) Slide Deck** (Google Slides, PPT, or PDF)
- **Careers in Math (HS) Student Worksheet** (class set; digital or hard-copies)
- Approximately 30 - 40 minutes of instructional time

TASKS

Instructor-guided

- Pass out the **Student Worksheet**.
 - Review learning objectives and assignment expectations.
 - Present the **Careers in Math Slide Deck**.
 - Lead a group discussion about observed similarities and differences among the math-related occupations featured in the presentation.

Student-driven

- Complete section 1 of your **Student Worksheet** as you view the slideshow presentation.
- Login to MajorClarity and complete steps 1 - 3 for each math-related pathway and occupation you learned about in the presentation: **Mathematics** (*Statisticians*), **Insurance** (*Actuaries*), and **Mechanical Engineering** (*Industrial Engineers*).
- 1. Navigate to the pathway. Click and read each section of the career page for the selected occupation and record the following information in section one of your worksheet: *average annual wage*, *job presence in your state*, *1 common task*, *1 career work style*, and *two of the listed related careers*.
- 2. Return to the pathway page and click the “Start Activity” button to test drive the pathway..
- 3. Once you have completed the activity, rate your compatibility using the “Score Your Fit” button, and record the rating in section 2 of your worksheet.

* Remind students to “star” occupations of interest to save them to the **Favorites** list.

Careers in Math

Name: _____

A basic understanding of math is beneficial no matter which industry you are working in. There are some occupations however that rely on a deep understanding of mathematical principles and processes for the job to be performed successfully. In this lesson you will learn about math-related occupations in three different career paths: **Mathematics**, **Insurance**, and **Mechanical Engineering**. Remember to apply your active listening skills as you view the presentation, and then complete each section below of the **Student Worksheet**.

SECTION 1 | Directions: Login to your MajorClarity account. Navigate to the **Mathematics** pathway from the *Career Exploration* tab. Locate the math-related occupation, *Statisticians*. Read the career page to determine the following:

Annual Wage		Job Presence	
Common Task			
Career Work Style			
Related Careers	1.		2.

Navigate to the **Insurance** pathway from the *Career Exploration* tab. Locate the math-related occupation, *Actuaries*. Read the career page to determine the following:

Annual Wage		Job Presence	
Common Task			
Career Work Style			
Related Careers	1.		2.

Navigate to the **Mechanical Engineering** pathway from the *Career Exploration* tab. Locate the math-related occupation, *Industrial Engineer*. Read the career page to determine the following:

Annual Wage		Job Presence	
Common Task			
Career Work Style			
Related Careers	1.		2.

Careers in Math

Name: _____

SECTION 2 | Directions: Complete the following steps to test drive and rate your compatibility.

- Return to the **Mathematics** pathway.
- Click “Start Activity” to test drive the pathway.
- Once completed, click the “Score Your Fit” button to rate your compatibility based on what you have learned.
- Record your rating below:

MATHEMATICS COMPATIBILITY	
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- Navigate to the **Insurance** pathway.
- Click “Start Activity” to test drive the pathway.
- Once completed, click the “Score Your Fit” button to rate your compatibility based on what you have learned.
- Record your rating below:

INSURANCE COMPATIBILITY	
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- Navigate to the **Mechanical Engineering** pathway.
- Click “Start Activity” to test drive the pathway.
- Once completed, click the “Score Your Fit” button to rate your compatibility based on what you have learned.
- Record your rating below:

MECHANICAL ENGINEERING COMPATIBILITY	
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