## **Elementary Version**

### STEM Careers

**BINGO** 

Game to learn 24 STEM careers

32
Unique
BINGO Cards

VIVIFYSTEM.COM



STEM EDUCATION

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#### **THANK YOU!**

Thank you for downloading a Vivify product! If you have any questions, please email us at info@vivifystem.com.

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#### **ABOUT VIVIFY**

Vivify is a team comprised of two Aerospace Engineer friends, Natasha and Claire, who live in Texas. We met as college classmates and roommates at Texas A&M University and later left engineering careers in the Department of Defense and Air Tractor to pursue our passion for STEM education. Learn more of our story <a href="https://example.com/here">here</a>.

Our goal is to bring engineering to life—to vivify learning—for kids of all ages. Please connect with us so we can learn how to better serve your students!

- Natasha & Claire, The Vivify Team



#### Connect with us for free STEM resources!

Subscribe to our newsletter and receive access to a library of <u>free</u> STEM resources through <u>www.vivifystem.com</u>. Follow us on social media or listen to "The STEM Space" podcast for more resources and ideas. We also welcome you to join <u>"The STEM Space"</u> Facebook group to connect with other educators across the world.









bit.ly/Vivifytwitter

#### **WANT MORE STEM?**

For a complete list of all of Vivify STEM resources broken down by standards, topics, and grade levels, go here: <a href="http://bit.ly/VivifyResourceGuide">http://bit.ly/VivifyResourceGuide</a>



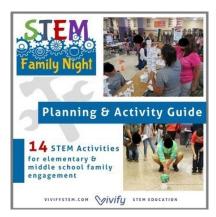




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bit.ly/STEMfamilynight

bit.ly/Vivifybotany

#### Vivify's Overview of STEM Education

Successful STEM education is an empowering interdisciplinary approach that brings math and science concepts to life through problems that mimic the complexities and excitement of the real world. STEM revolves around the Engineering Design Process that embraces failure, relies on teamwork, and requires critical thinking and creativity. While exciting, educators often become intimidated as a search for curriculum leads to an overwhelming range of activities from index towers to robotics competitions. At Vivify, we believe that not all STEM is created equal. Educators should adopt a 3 Stages of STEM approach by progressively building towards more complex projects.

#### **ABOUT THIS ACTIVITY**

Do you know what a sound engineer does? What about a biomedical engineer? Students will have a great time playing this game and learning all about the possibilities of STEM! This twist on the classic BINGO will expose students to exciting science and engineering careers.

#### STEM Careers BINGO Game

Students will learn about various science and engineering careers through a fun game of BINGO! 32 unique board games are included that cover 24 different STEM careers. Career descriptions also included. Includes a companion Google Slides presentation with photos of each career!

#### **ACTIVITY INSTRUCTIONS**

 REVIEW the following pages that include science & engineering career descriptions and BINGO game sheets. Read about student sparks here for ideas to connect student interests to STEM careers: https://www.vivifystem.com/blog/2019/8/1/connectstemcareers

#### 2. PREPARE GAME.

- Print BINGO boards as needed for students.
- Cut out STEM career description sheets into strips. Place into a container and mix up.
- Make a copy of the companion Google slides (optional): <a href="https://docs.google.com/presentation/d/1UxrJviV-EcnnjbqzepK5UbYwHI">https://docs.google.com/presentation/d/1UxrJviV-EcnnjbqzepK5UbYwHI</a> <u>Te06SB6lH5Hq6q5r0/edit?usp=sharing</u>

#### 3. PLAY GAME.

- Pass out BINGO boards to each student along with 24 markers such as beans, coins, paperclips, etc.
- Pick out a STEM career strip from container. Read description outloud.
   Ask students to guess the career. Once the correct career is identified, mark career on board.
- The first student to get 5 across, down, or diagonally wins! The FREE space can be used.

#### MATERIALS REQUIRED

- STEM career descriptions
- · Container such as bowl or bag
- · BINGO boards
- BINGO game markers

#### Digital Option: Google Slides

Play during a virtual class! Send students a copy of the Google Slides version of the game. Each student selects a slide. Call out a career, and students can use the drawing tools to mark out the career. When a student wins, they can send a message or even share their screen for proof.

https://docs.google.com/presentation/d/1jTi0o\_zeMb4ivRhtivik-UsFe-C1Q7QYquql7sHDqs/copy

#### **Science & Engineering Careers**

		`	
1	Aerospace Engineer		They design objects that fly in the air or in space. They can design an airplane, quadcopter, or a rocket to Mars.
2	Animator		From Pixar to Disney, they use computers to create animated images or special effects seen in movies, TV, and video games.
3	Anthropologist		This scientist studies humans in the past and present. They may study an ancient pot to learn about a past human civilization.
4	Astronomer		This scientist studies the stars in the night sky.
5	Biochemist		This scientist studies living organisms and their chemical processes like breathing and digesting food.
6	Biomedical Engineer		This engineer solves problems in medicine to help sick people. They may design a prosthetic leg or a new medicine.
7	Chemical Engineer		This engineer uses chemistry to solve problems to make our lives better. They can design a machine to turn recycled bottles into fabric or a better type of bubble gum.
8	Civil Engineer		This engineer designs structures to provide us shelter or transportation. They can design a bridge or the world's tallest building.
9	Computer Programmer		They write the instructions to tell computers what to do. They can design a new iPhone app or create a video game.

#### **Science & Engineering Careers**

10	Electrical Engineer		This engineer solves problems using electrical equipment. They design cell phones, microwaves, medical instruments, and video game consoles.	
11	Engineer		They use technology and science to solve problems to make our lives better.	
12	·		This scientist studies what causes pollution to prevent damage to our environment and health.	
13	Marine Biologist		This scientist studies animals that live in the ocean. They may tag and track whales to learn about their migration patterns.	
14	Materials Engineer		This engineer makes new materials to solve problems. They can make better tires for race cars or a safer football helmet.	
15	Mechanical Engineer		This engineer solves problems using mechanical devices. They can design a faster roller coaster or robots that perform surgery.	
16	Meteorologist		This scientist studies the Earth's atmosphere to predict the weather.	
17	Neurologist		This type of doctor treat problems with the nervous system. This includes the brain and the huge network of nerves that control your body.	

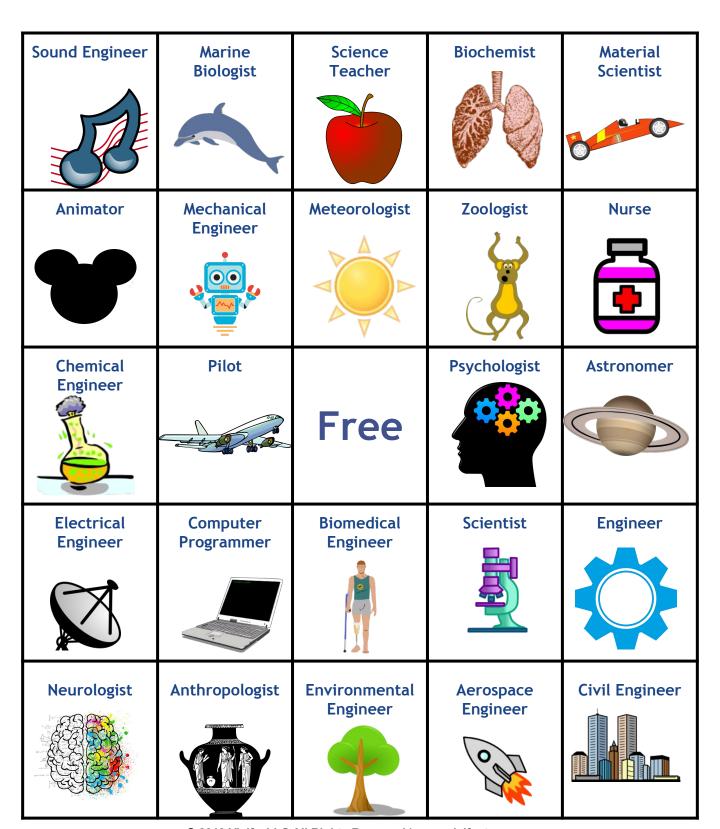
#### **Science & Engineering Careers**

18	Nurse	They work with doctors to heal sick people. They can work in the emergency room, in a doctor's office, or travel to different hospitals.
19	Pilot	They fly airplanes, helicopters, or spaceships. They can transport sick people or fly a crew to the Moon.
20	Psychologist	This scientist studies the human mind. They can treat someone who is sad or study how to a person happier.
21	Science Teacher	They help others understand science topics such as physics, biology, chemistry, or life sciences.
22	Scientist	They study the world around us to learn how things work.
23	Sound Engineer	This engineer operates equipment to record, mix, or create sound. They work in recording studios, sporting arenas, or movie productions
24	Zoologist	This scientist studies the behaviors of wild animals. They can work to protect the home of rare elephants or design a zoo.



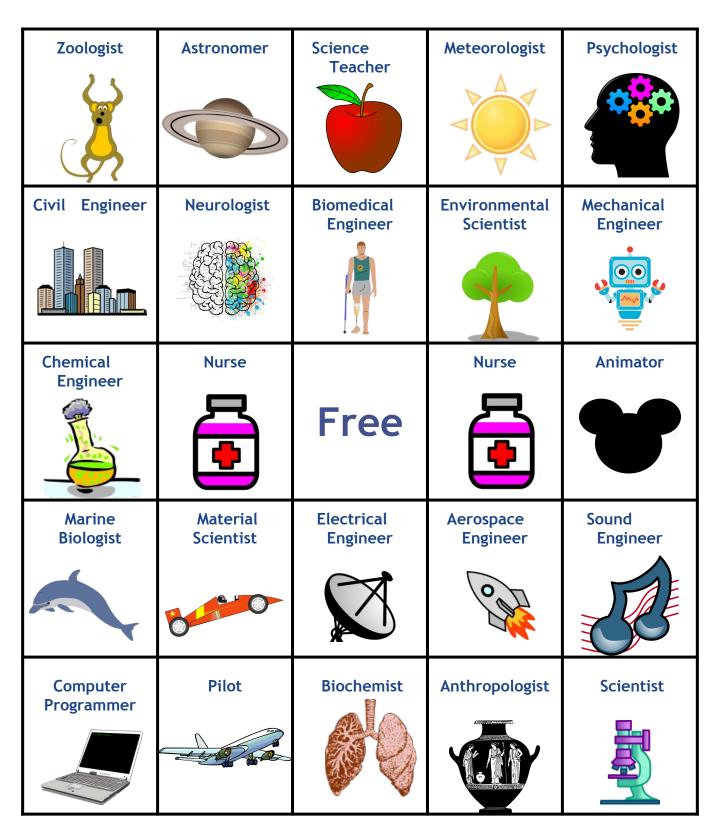




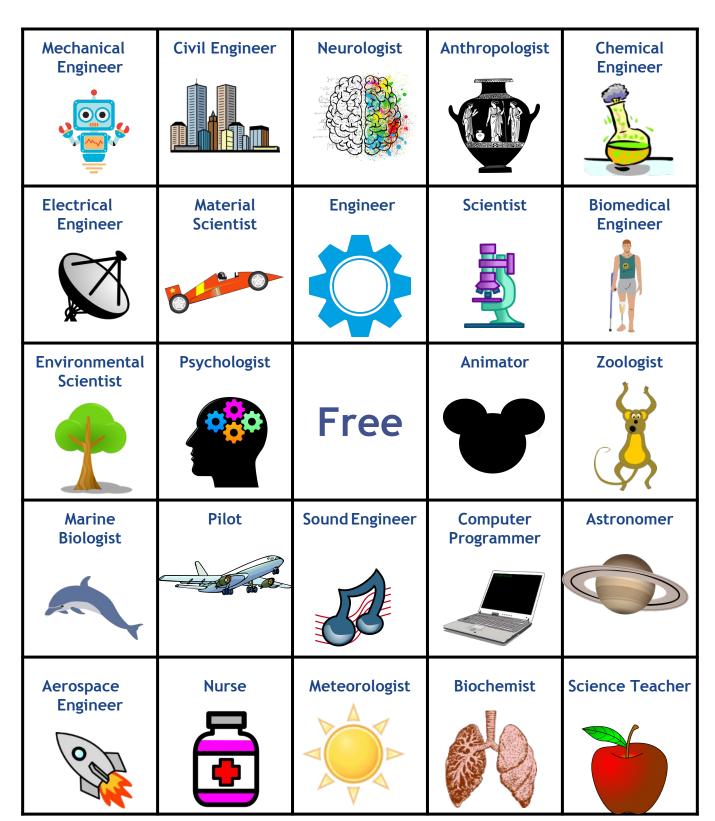


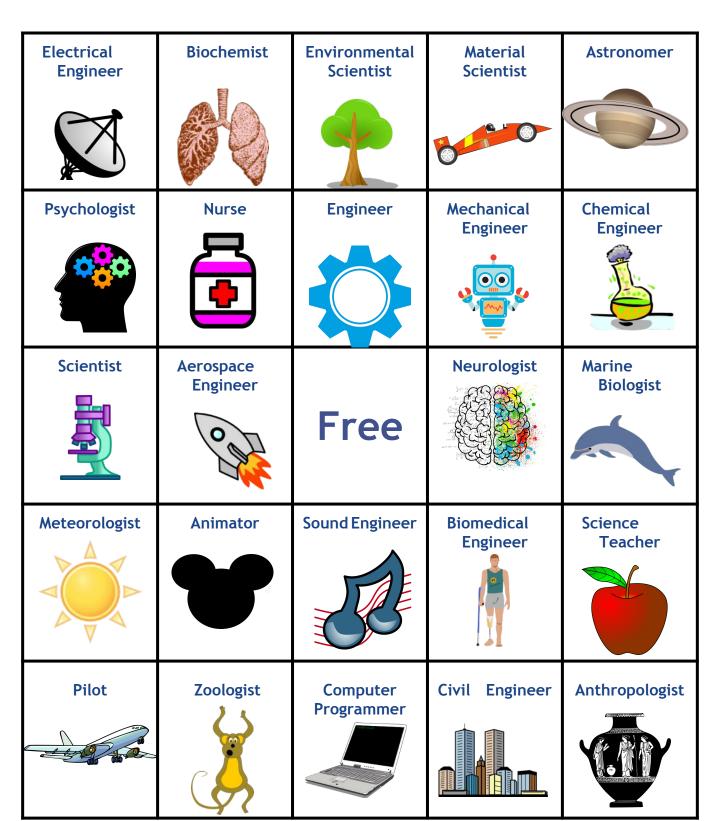




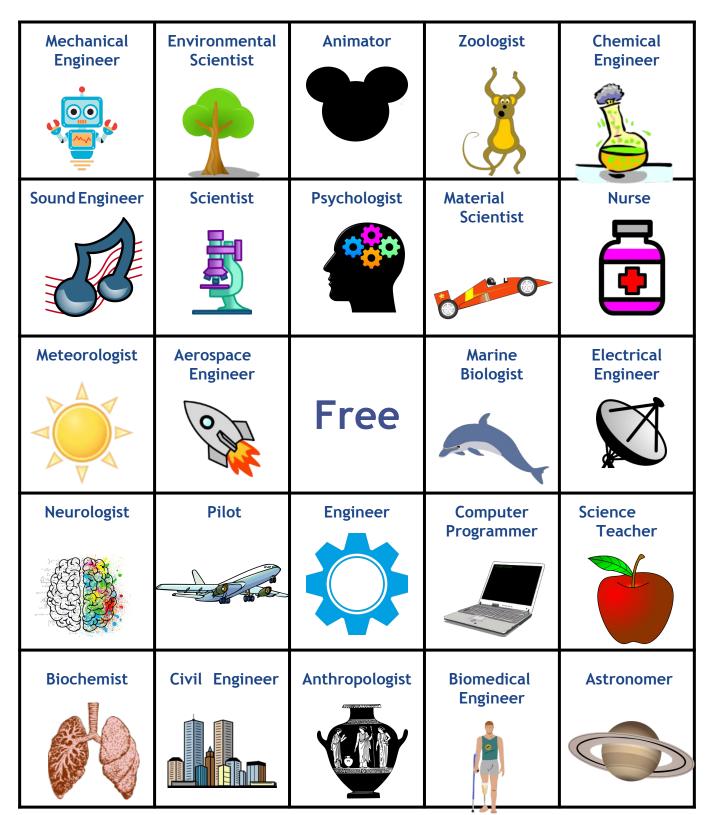




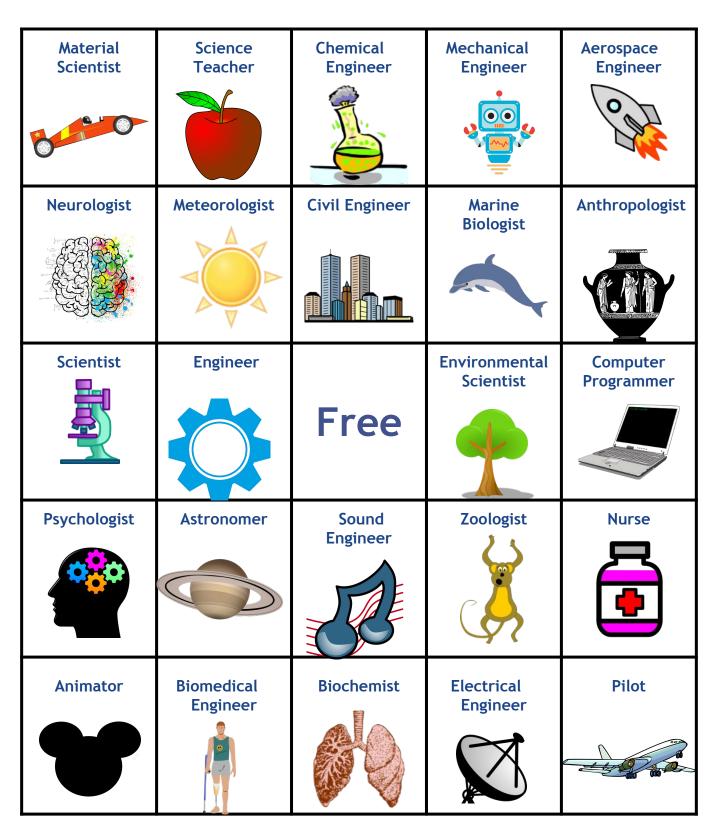


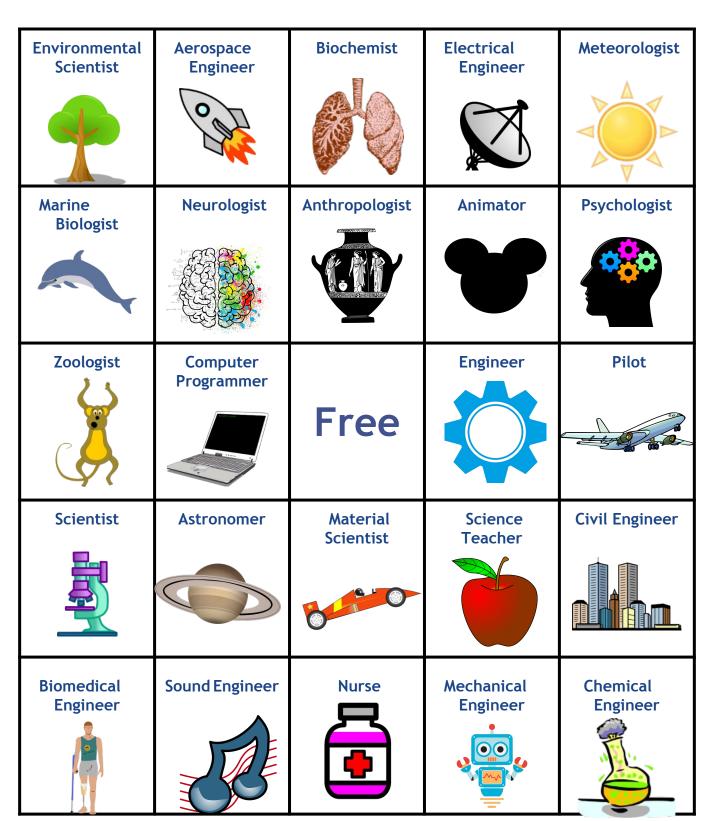


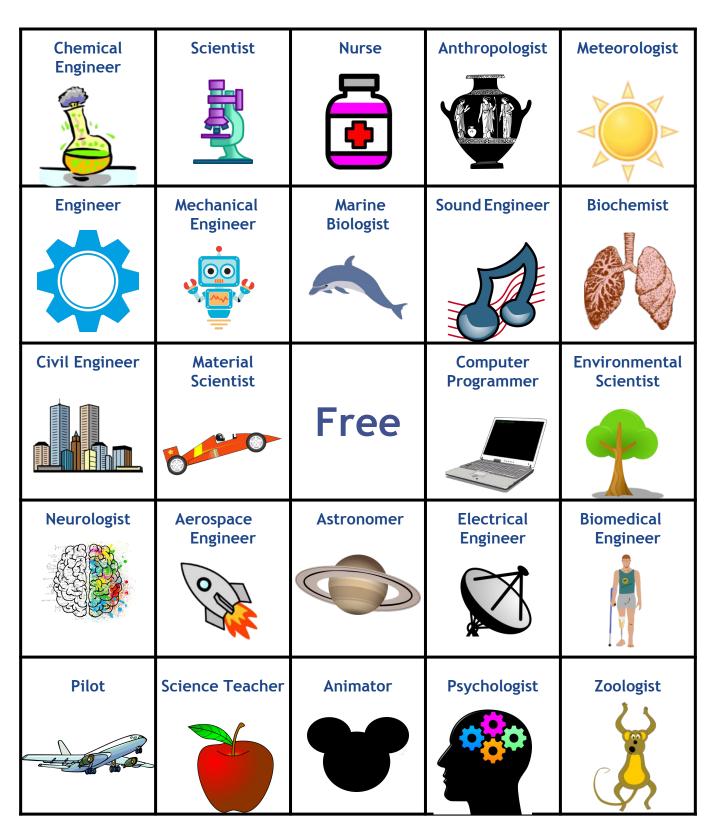


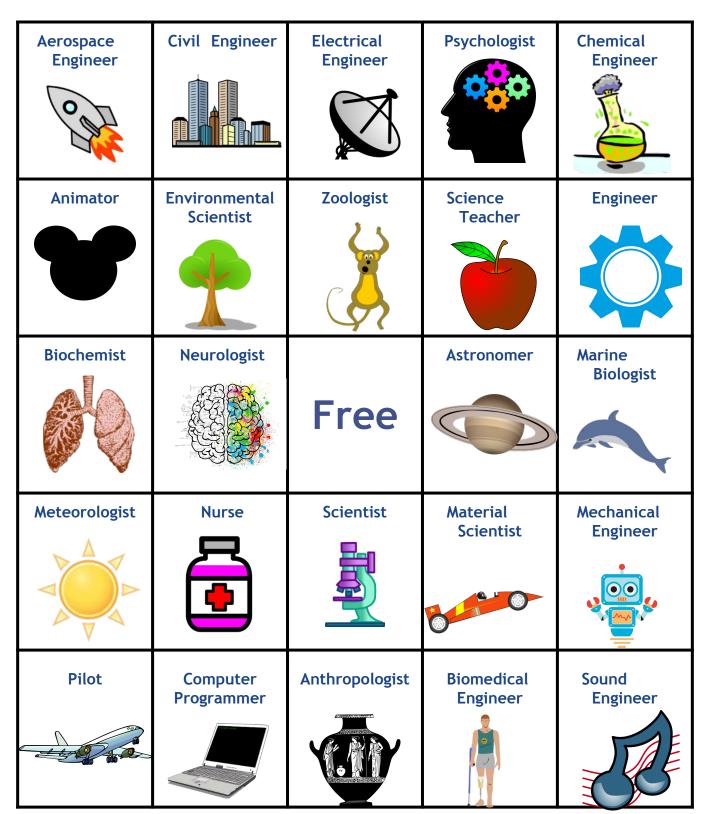


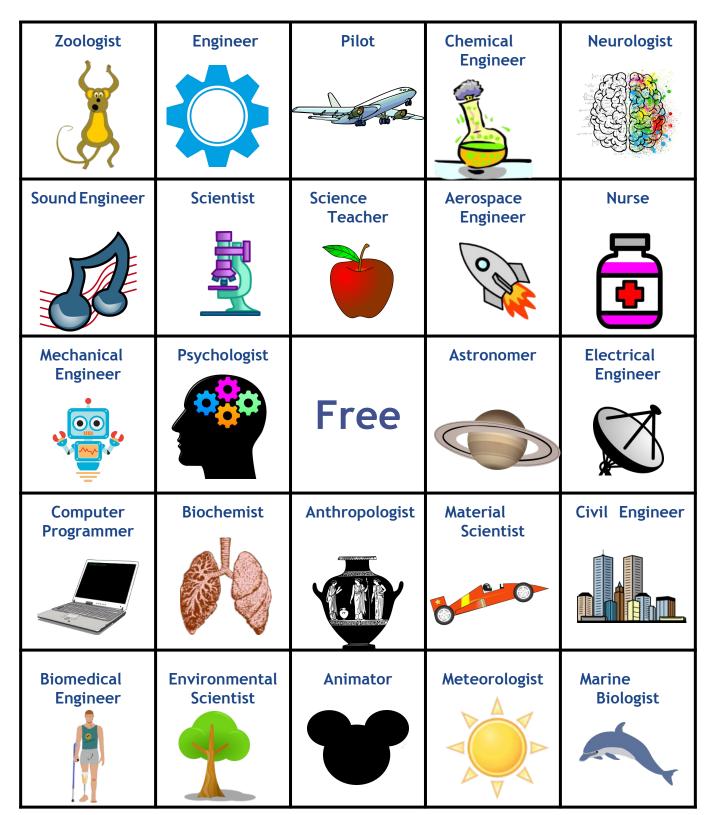
Environmental Scientist	Anthropologist	Aerospace Engineer	Biochemist	Psychologist
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Material Scientist	Pilot	Mechanical Engineer	Meteorologist	Nurse
Sound Engineer	Marine Biologist		Engineer	Electrical Engineer
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Science Teacher	Computer Programmer	Chemical Engineer	Civil Engineer	Biomedical Engineer
Astronomer	Animator	Neurologist	Scientist	Zoologist

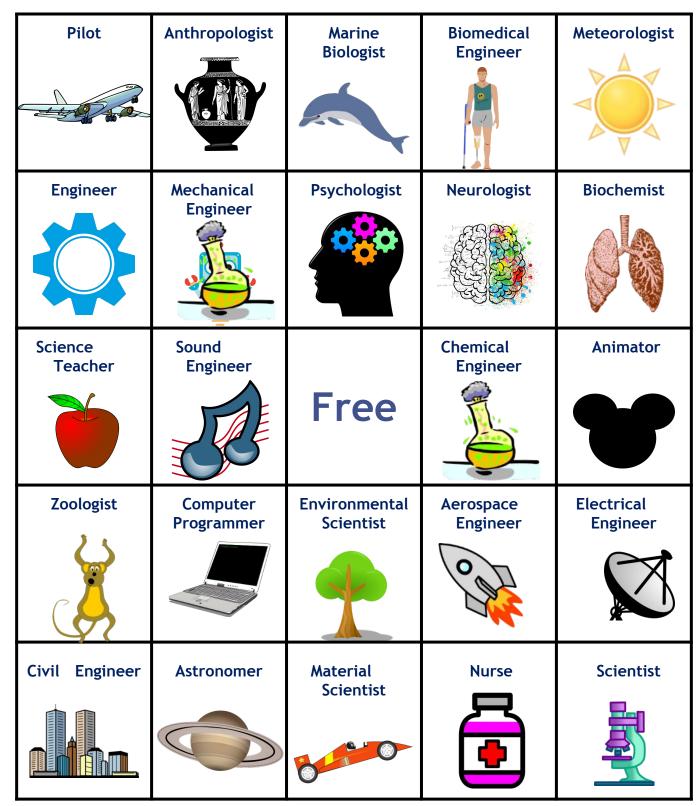






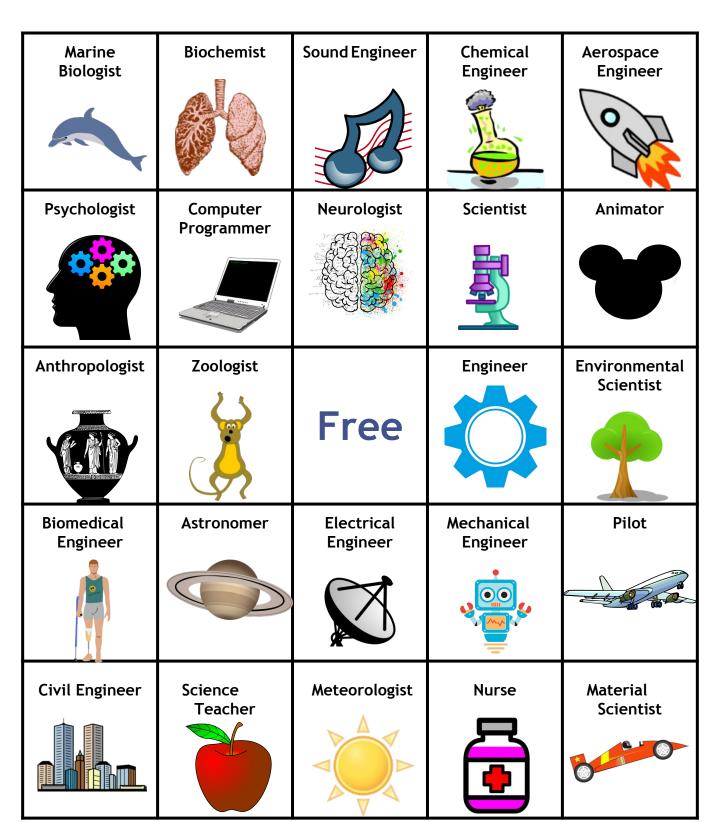




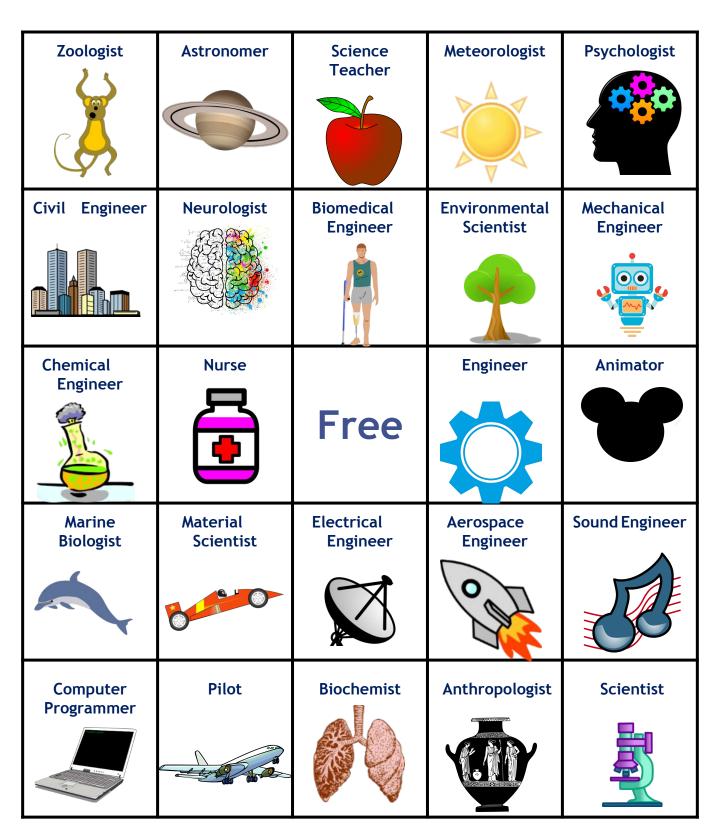






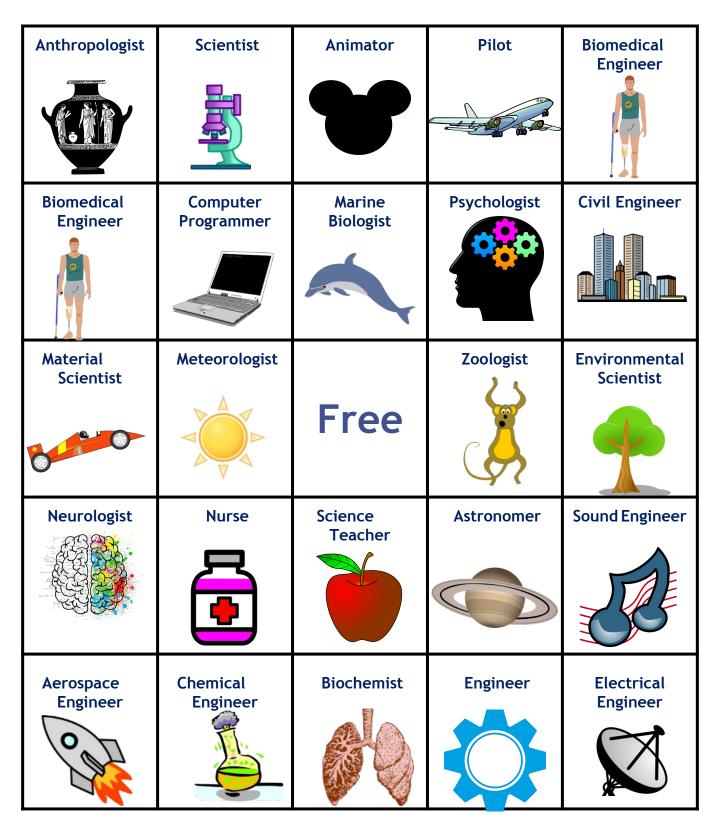




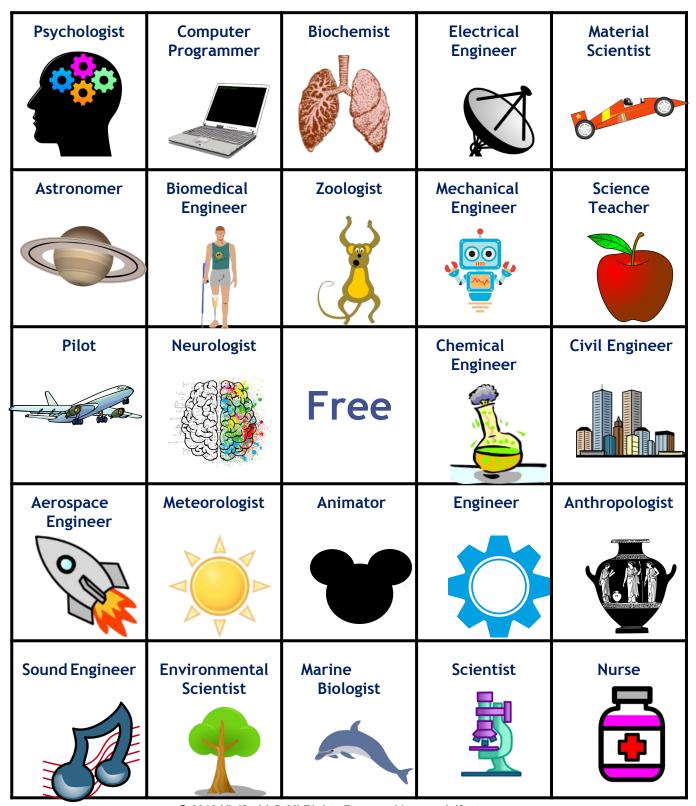




Computer Programmer	Electrical Engineer	Material Scientist	Animator	Science Teacher
Marine Biologist	Biochemist	Biomedical Engineer	Environmental Scientist	Pilot
Nurse	Mechanical Engineer		Zoologist	Chemical Engineer
		Free		
Neurologist	Civil Engineer	Scientist	Meteorologist	Astronomer
Engineer	Psychologist	Anthropologist	Aerospace Engineer	Sound Engineer
			OF	

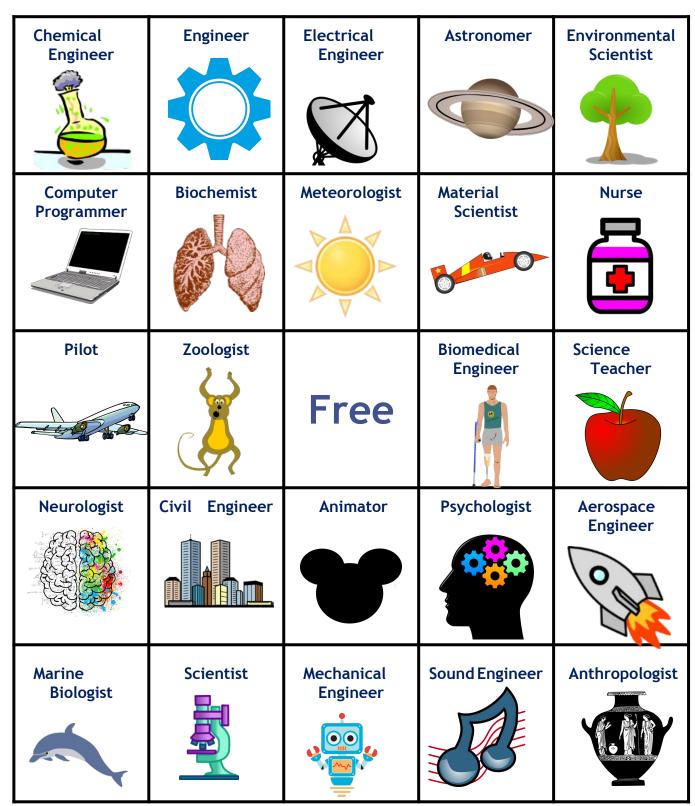




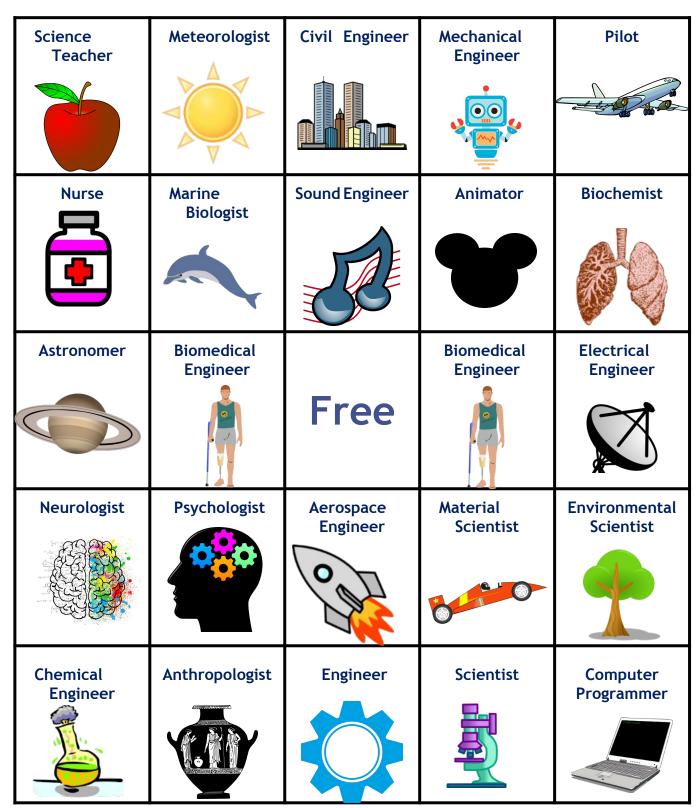




Civil Engineer	Computer Programmer	Marine Biologist	Neurologist	Anthropologist
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Mechanical Engineer	Biochemist	Free	Science Teacher	Psychologist
Engineer	Pilot	Zoologist	Chemical Engineer	Aerospace Engineer
Scientist	Astronomer	Meteorologist	Environmental Scientist	Electrical Engineer













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Material Scientist	Nurse	Sound Engineer	Biochemist	Astronomer
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		OF		
Engineer	Mechanical Engineer		Anthropologist	Science Teacher
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Psychologist	Scientist	Biomedical Engineer	Pilot	Civil Engineer
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Pilot	Mechanical Engineer	Meteorologist	Electrical Engineer	Engineer
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