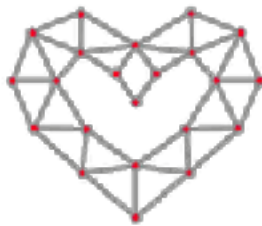
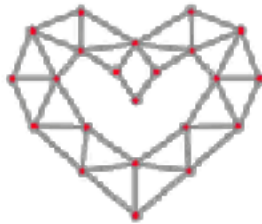


EEK!
ENGINEERING IT
ENGAGEMENT 



CELL-MET

YOU ARE AN ENGINEER



CELL-MET

Objective:

Learn what kind of
engineer you are
most like!

EEK! 

In this slide show, you will

1. Learn about the 4 key areas of engineering
2. Print or make your own worksheet
3. Get instructions on completing the activity

4 KEY AREAS OF ENGINEERING

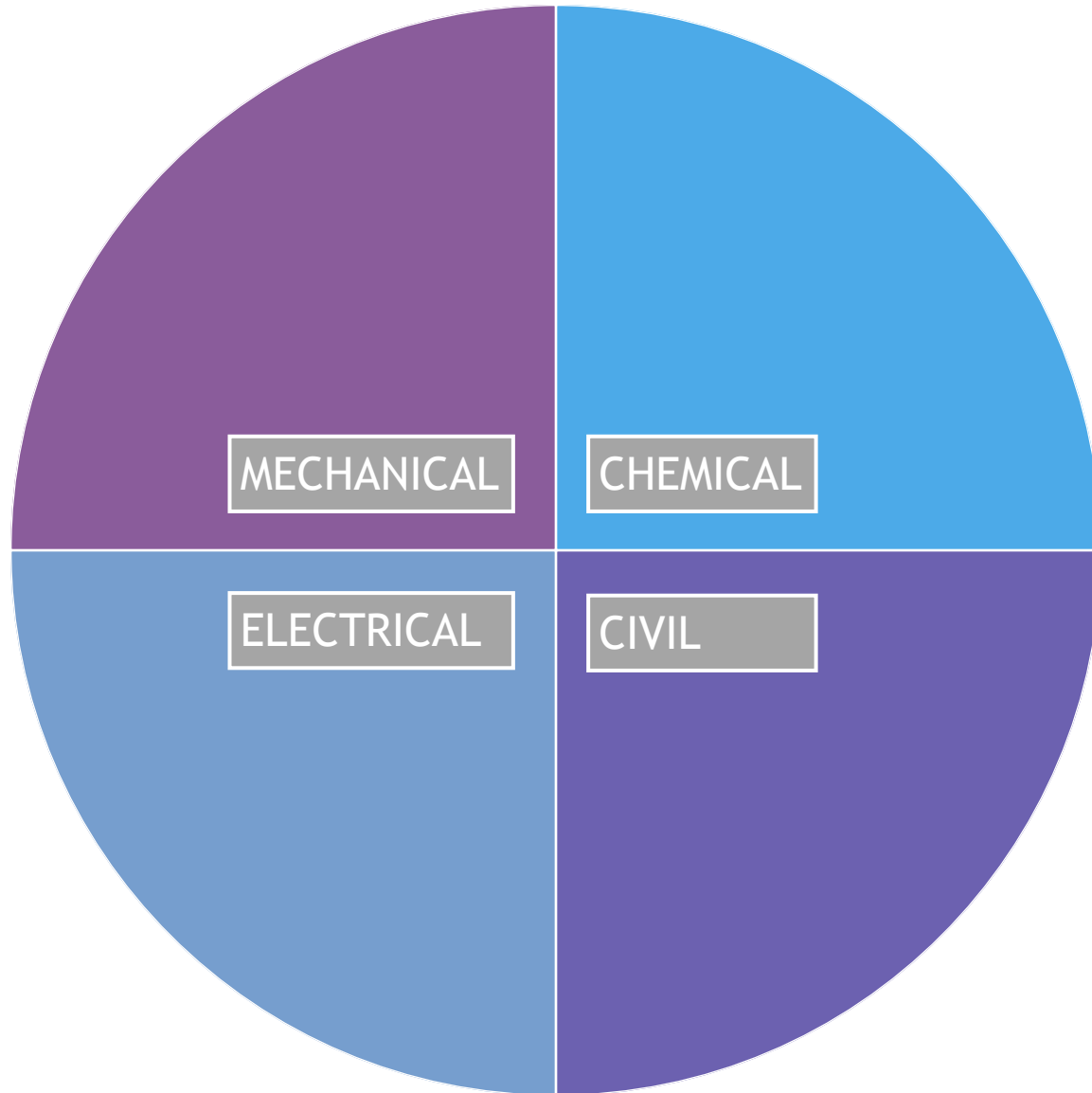
There are many, many
different types of engineers.

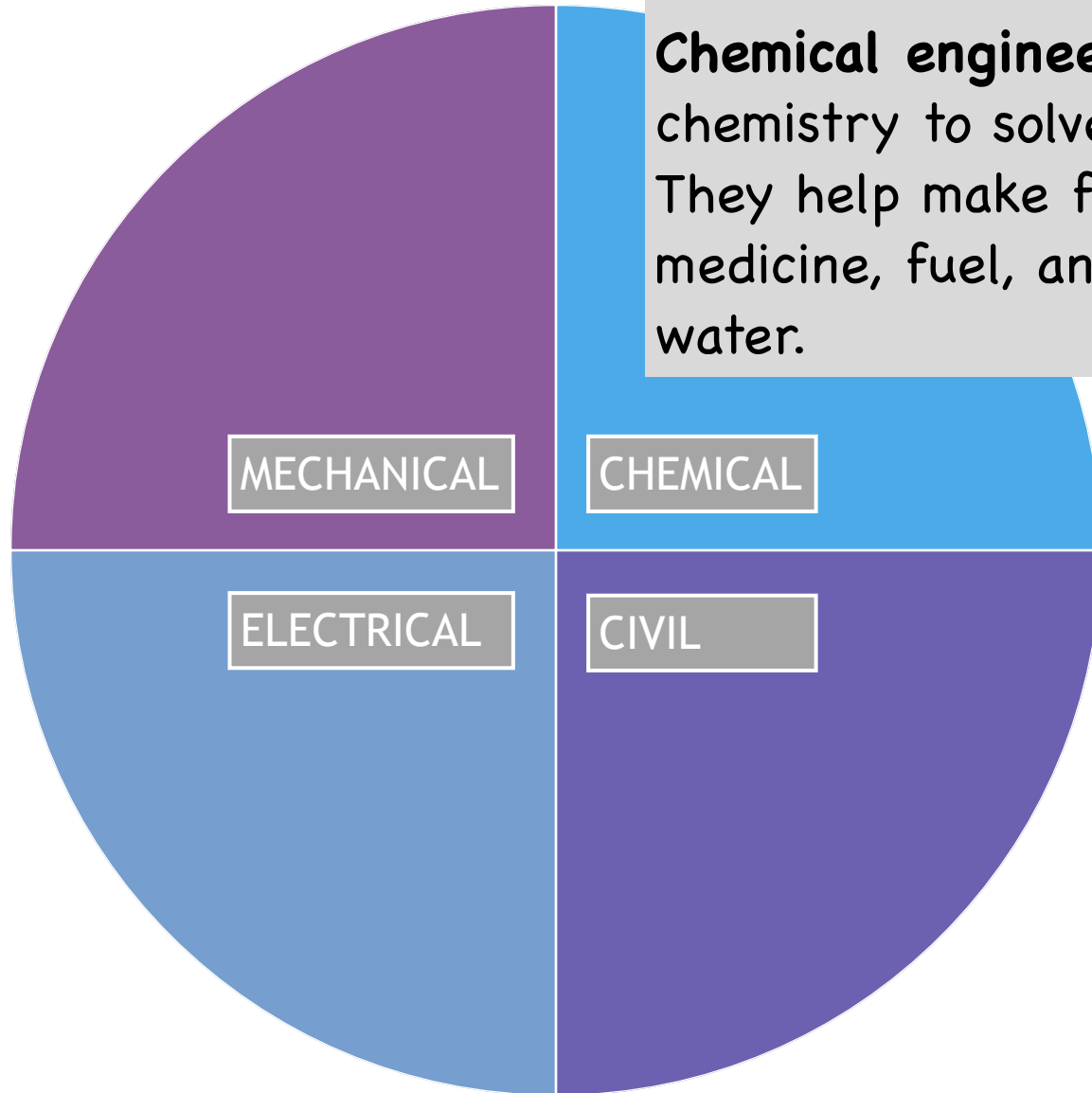
There are many, many
different types of engineers.

But their skills come from 4
key areas

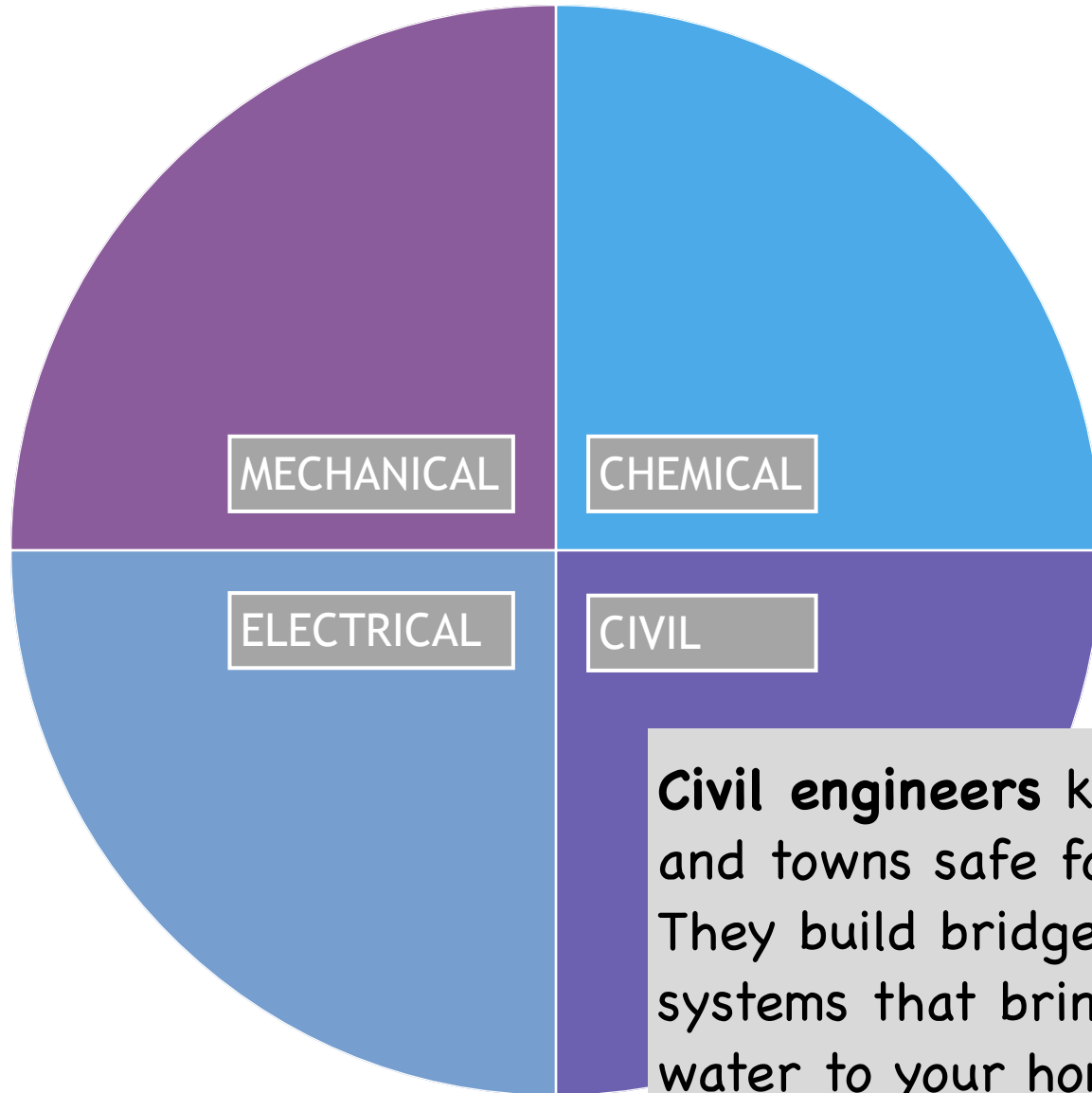
4 Key Areas of Engineering

1. Chemical
2. Civil
3. Electrical
4. Mechanical

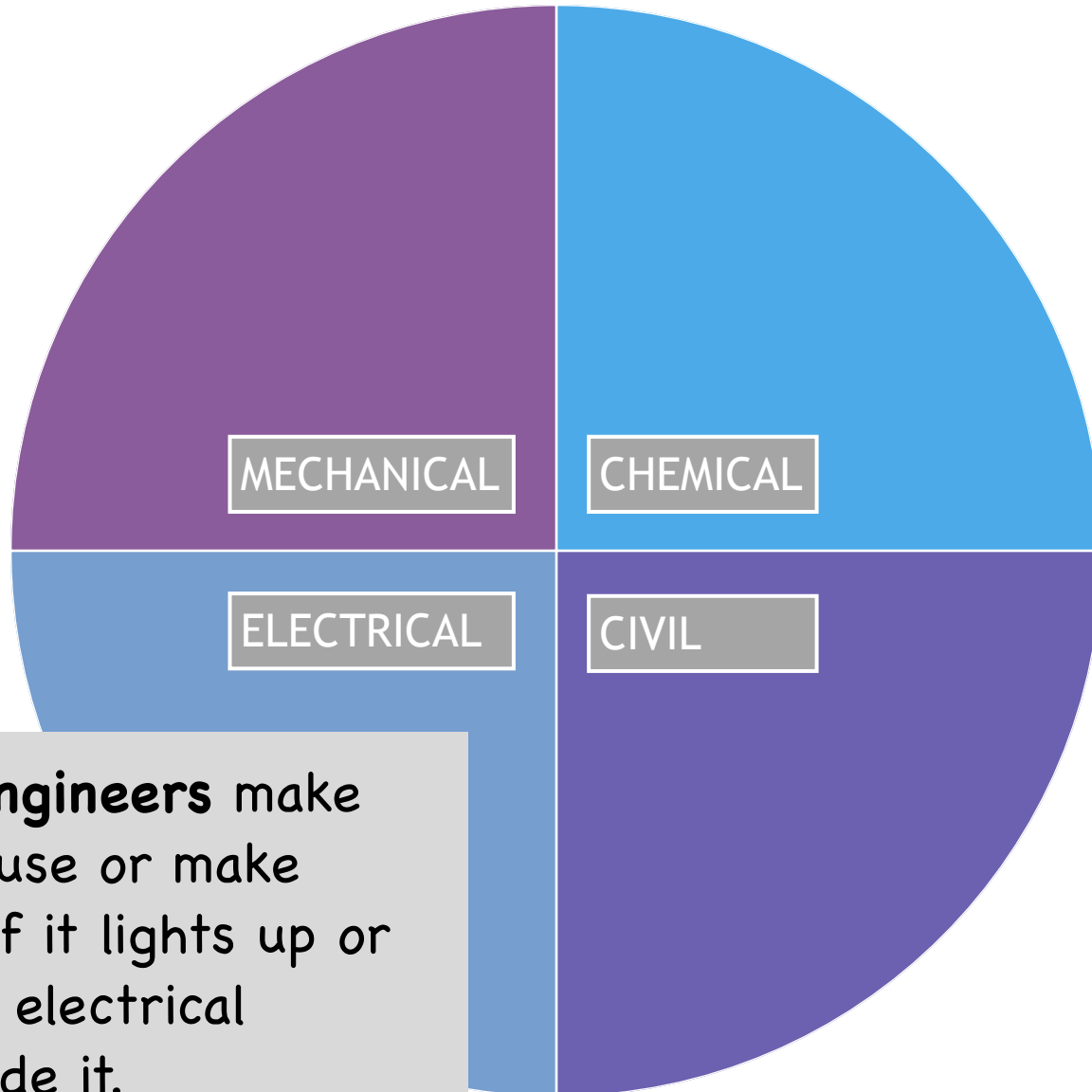




Chemical engineers use chemistry to solve problems! They help make food, medicine, fuel, and clean water.

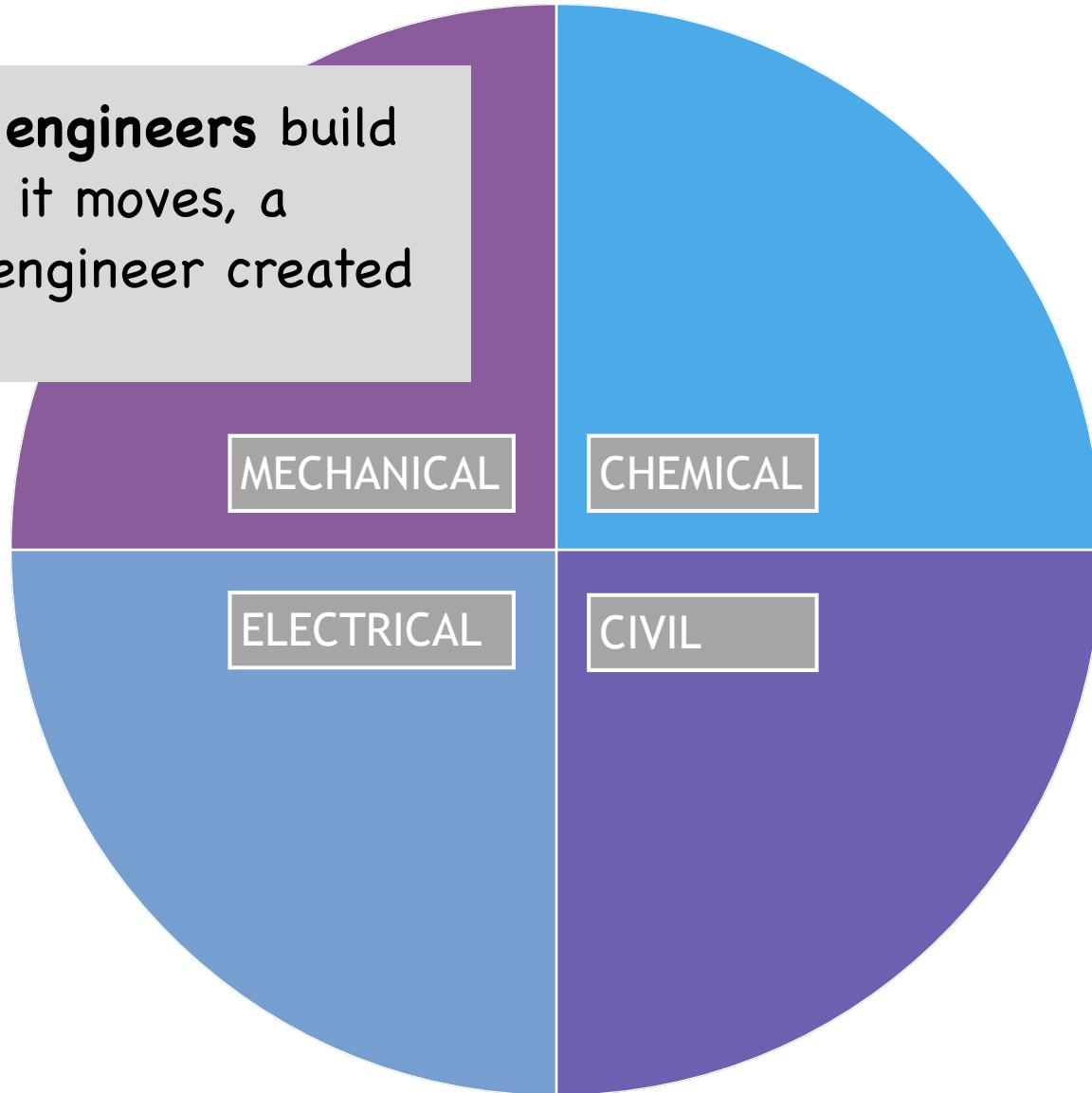


Civil engineers keep cities and towns safe for people. They build bridges, buildings, systems that bring clean water to your home, and more.



Electrical engineers make things that use or make electricity. If it lights up or turns on, an electrical engineer made it.

Mechanical engineers build machines. If it moves, a mechanical engineer created it.



Though there are many
engineers who are 1 of these
4 areas.....

EEK! 

Though there are many engineers who are 1 of these 4 areas.....

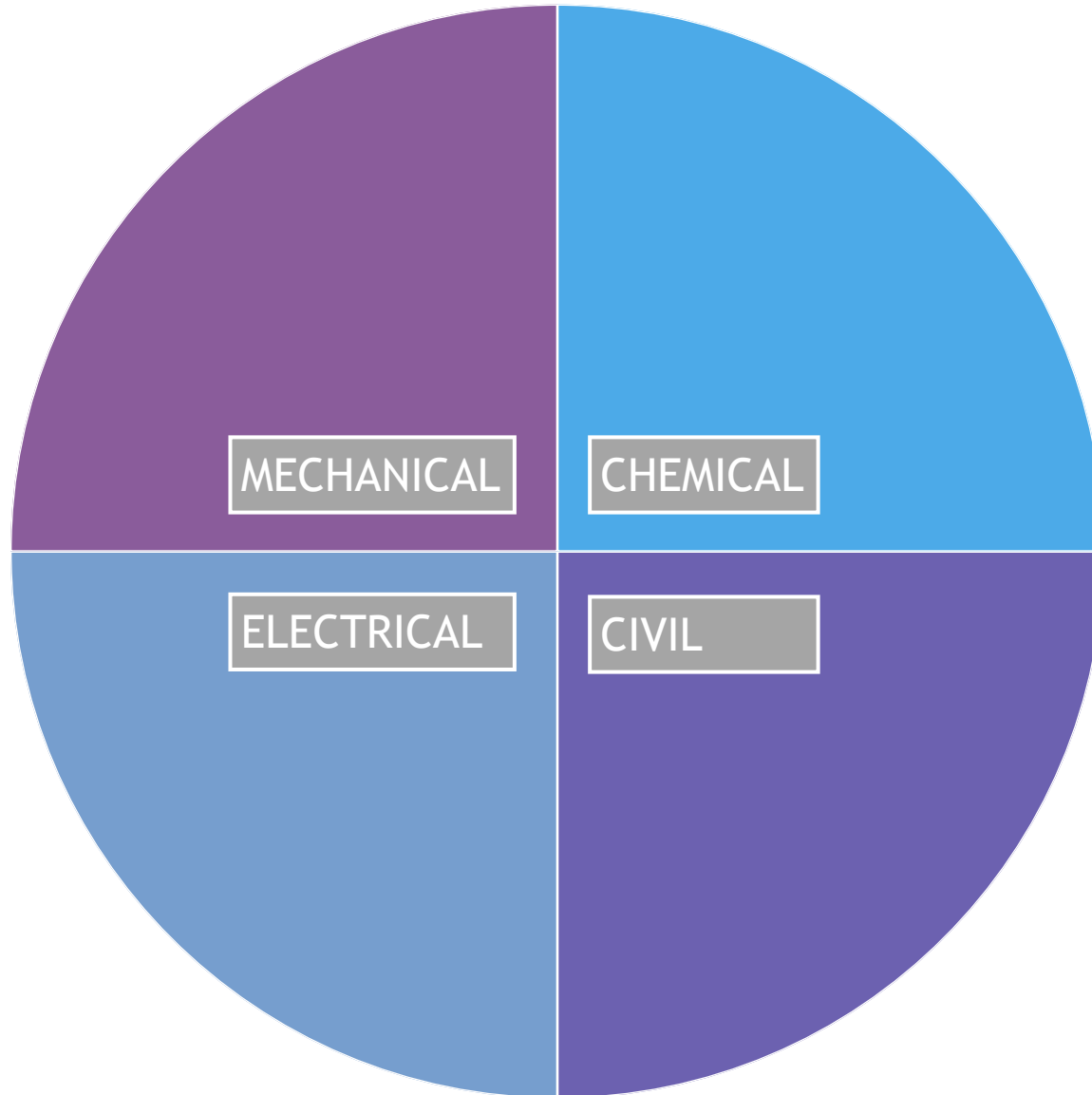
There are other engineers who combine skills from more than 1 area.

EEK! 

FOR EXAMPLE...

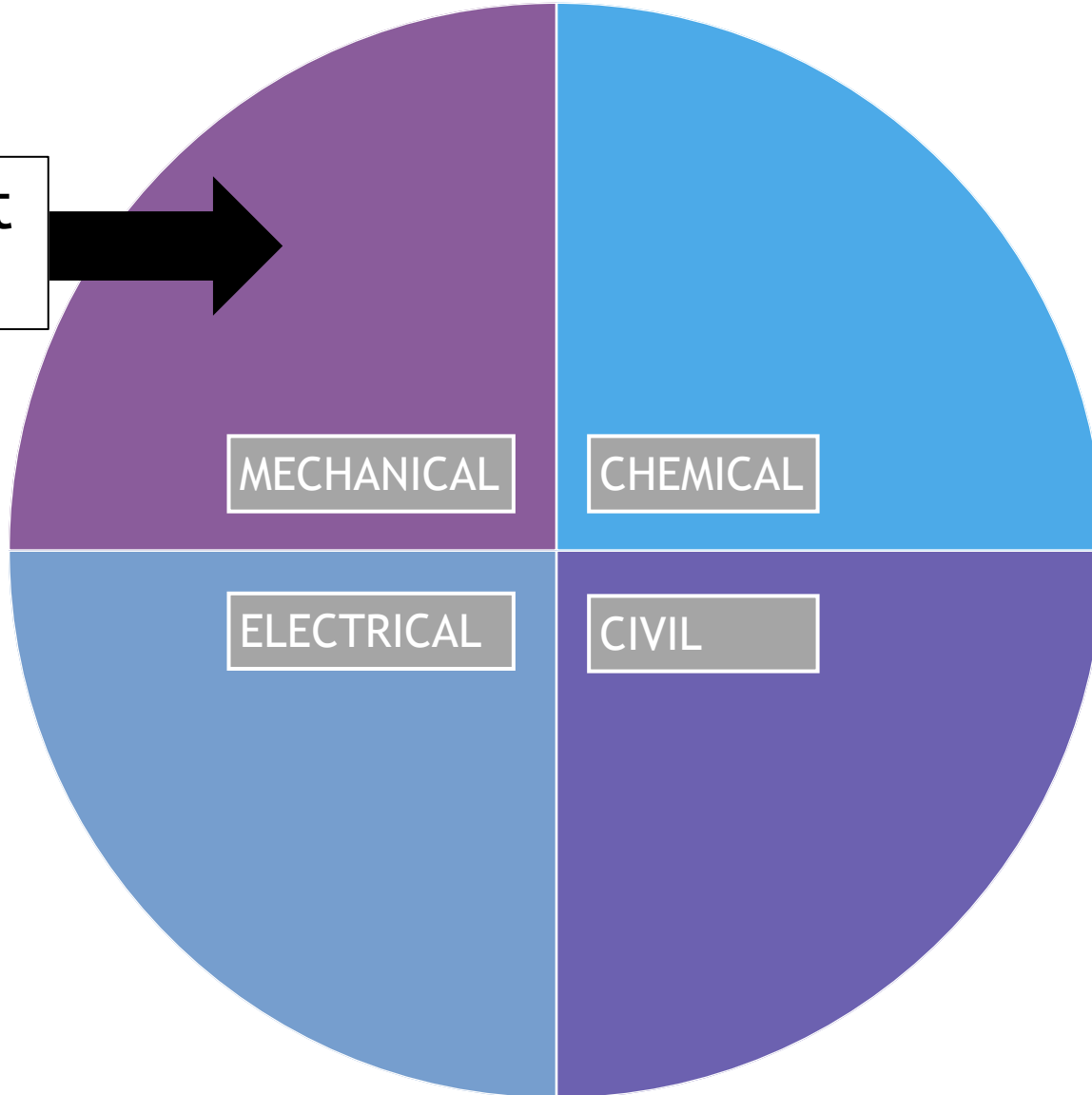
EEK! 

An automotive engineer works on...



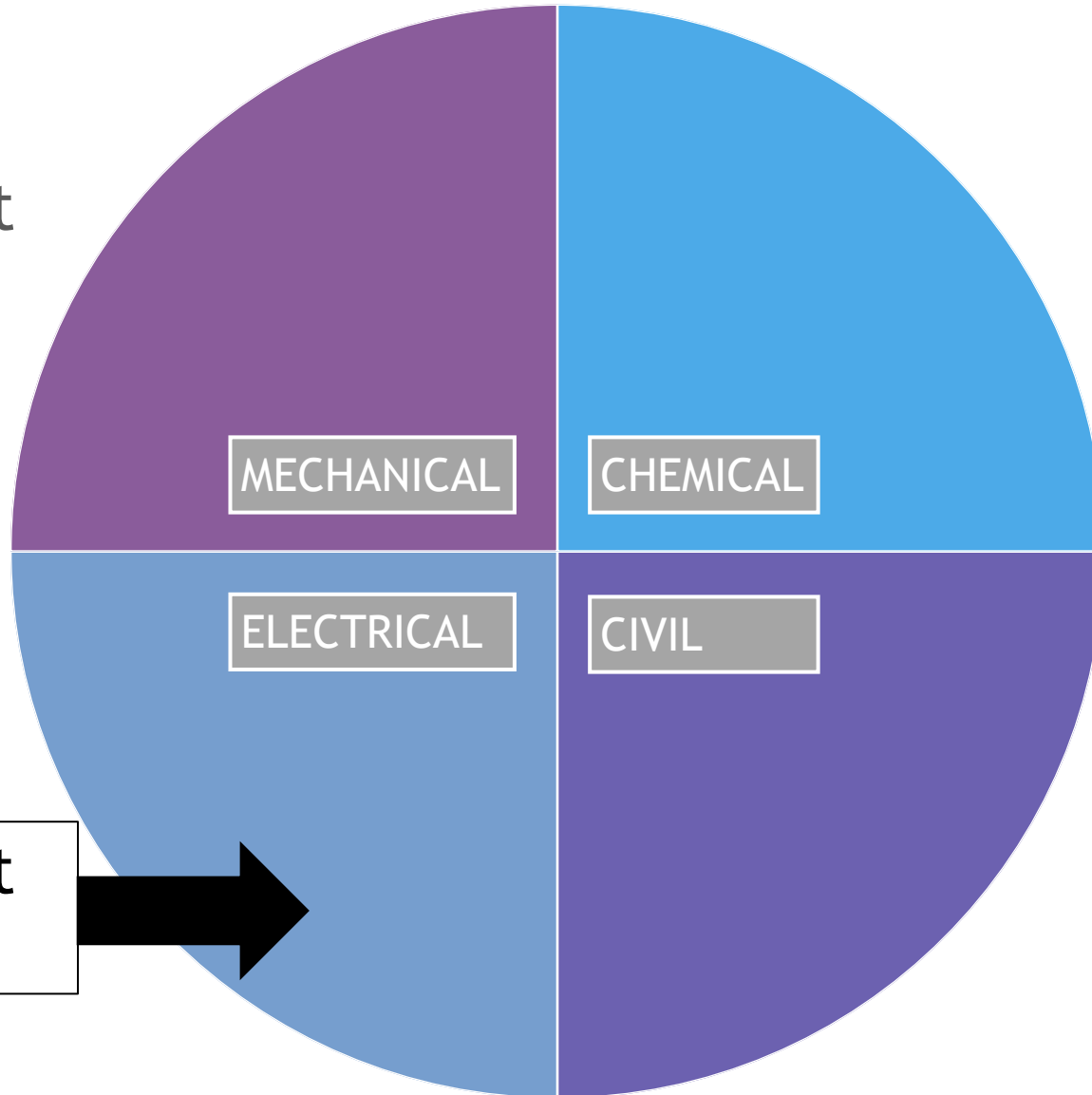
An automotive engineer works on...

Things that move



An automotive engineer works on...

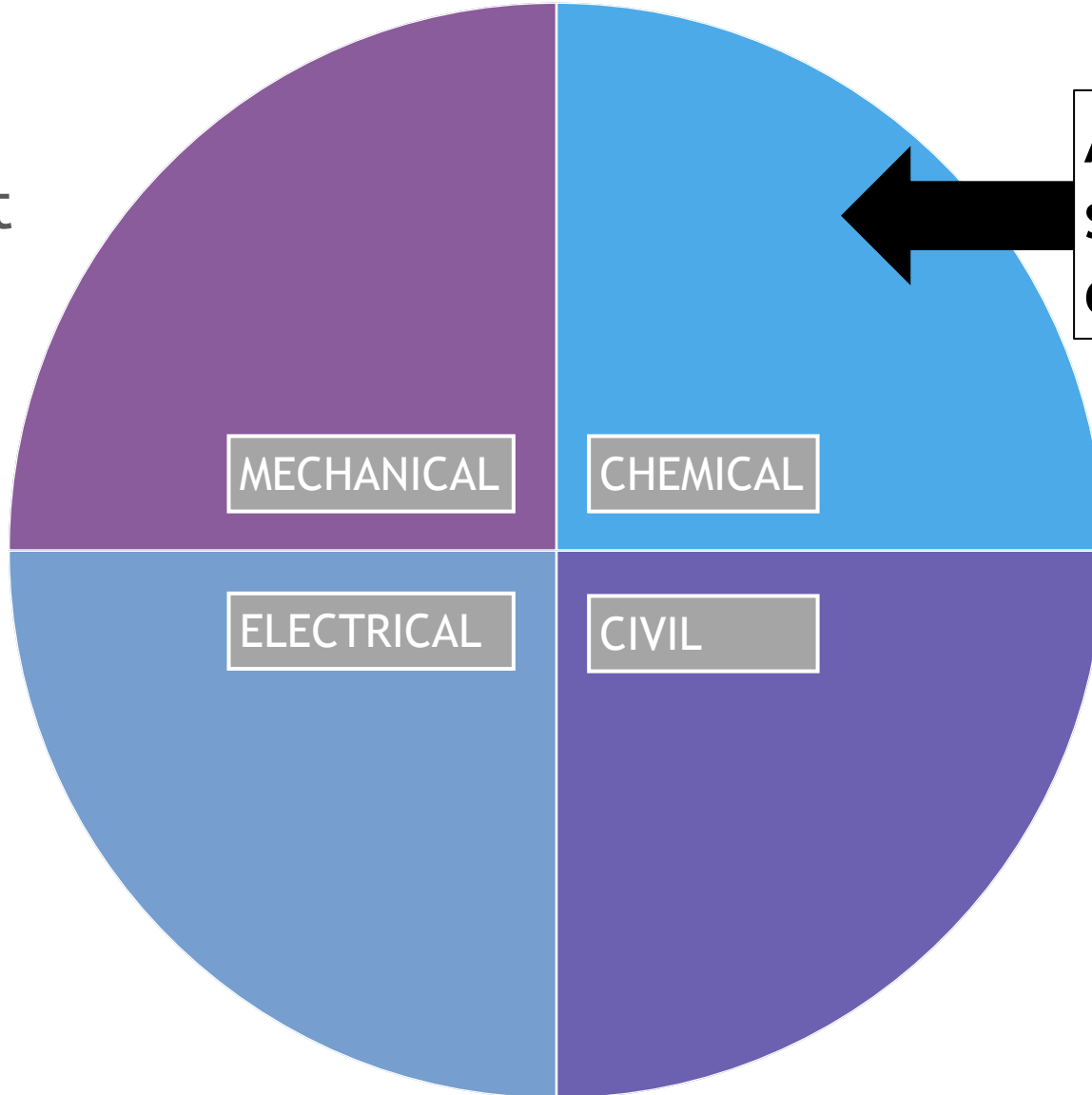
Things that move



Things that turns on

An automotive engineer works on...

Things that move



And sometimes chemicals

Thing that turns on

EEK! 

Our activity explores the different ways chemical, civil, electrical, and mechanical engineering can be used.

Our activity explores the different ways chemical, civil, electrical, and mechanical engineering can be used.

You will also see what kind of engineer you are!

EEK! 

Our activity explores the different ways chemical, civil, electrical, and mechanical engineering can be used.

You will also see what kind of engineer you are.

So, let's get set up!

EEK! 

ACTIVITY SET UP

Choose how you will prepare your worksheet

Option 1:

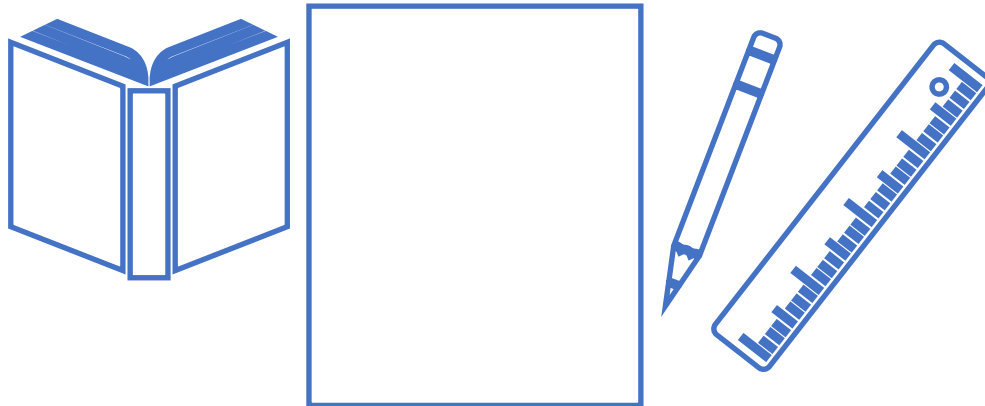
Print pdf document provided named "YaE_Worksheet"

Option 2:

Make your own worksheet

If you chose option 2, you will need

- 1 sheet of paper
- 1 pencil
- Something to help you draw straight lines
 - Such as a ruler or book



1. Draw a giant rectangle on your paper

You will need to write on the left and bottom so be sure to leave room for that.

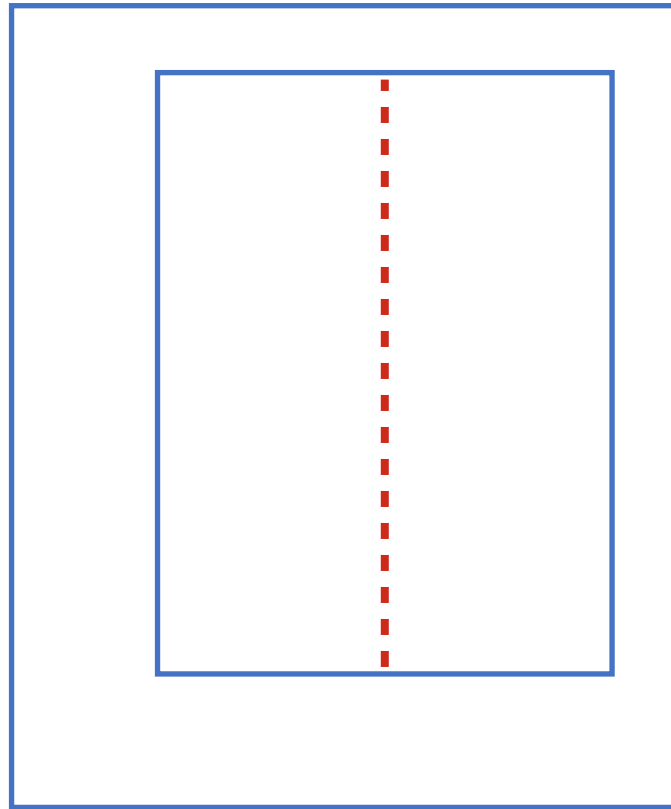
Extra space
on the left

Tip: carefully tracing a book is an easy way to draw a rectangle!

Extra space
on the bottom

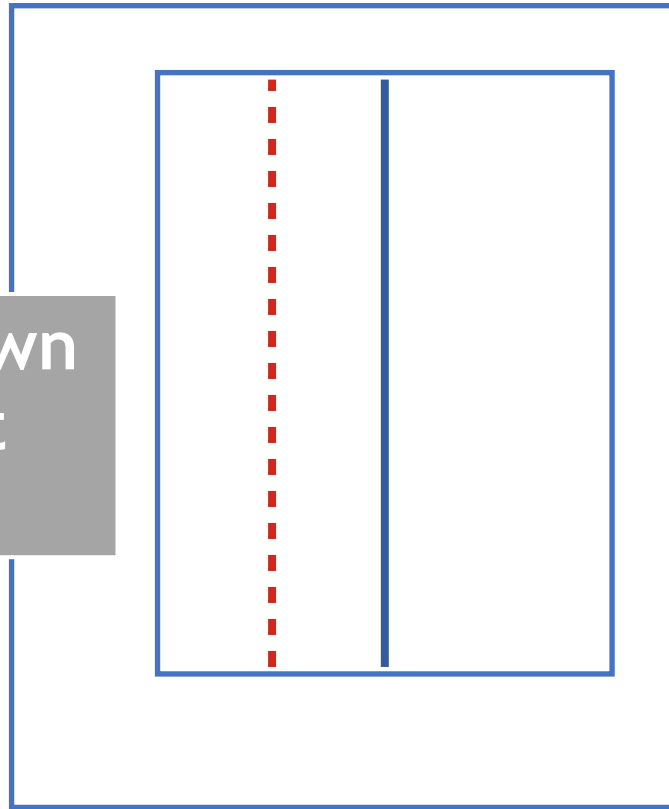
2. Draw your columns

1. Draw a line down the center of your rectangle



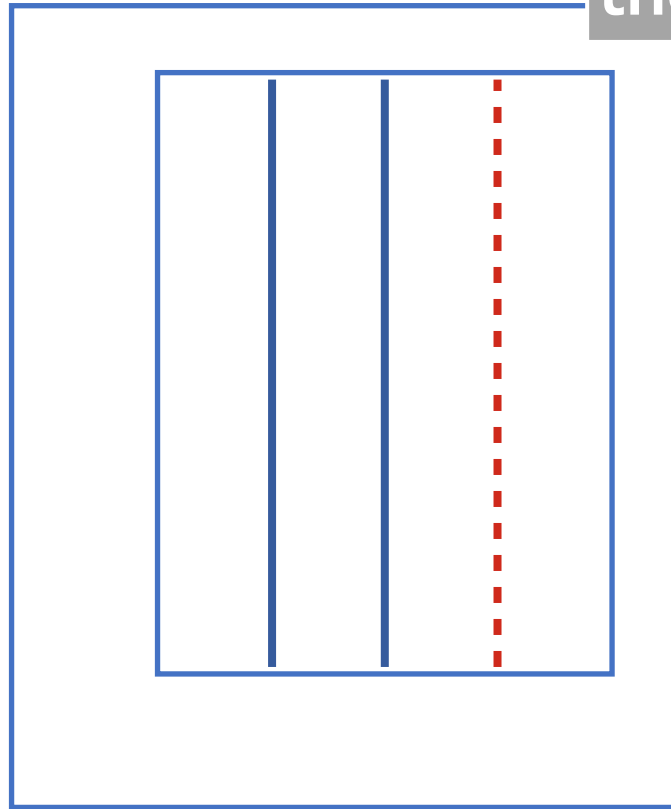
2. Draw your columns

2. Now, draw a line down the center of your first column



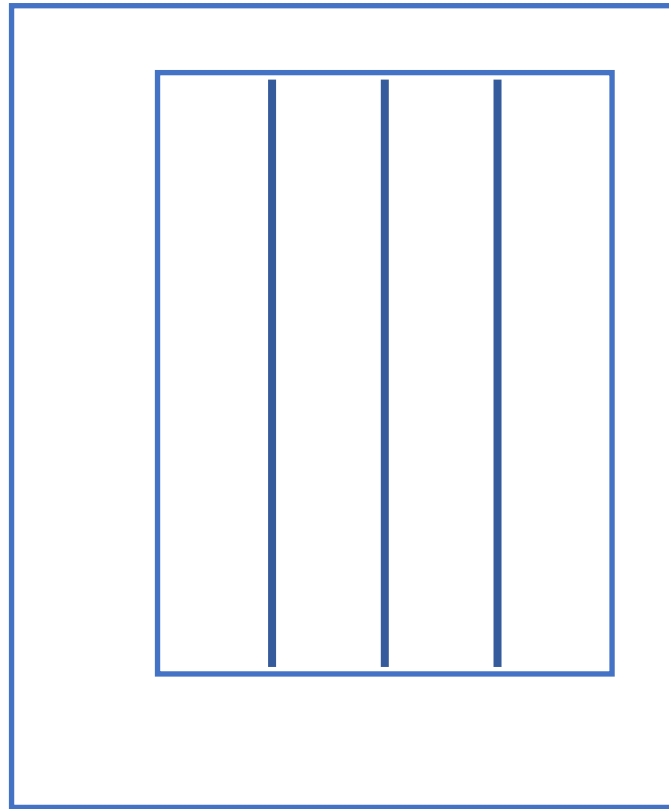
2. Draw your columns

3. Repeat on the other side



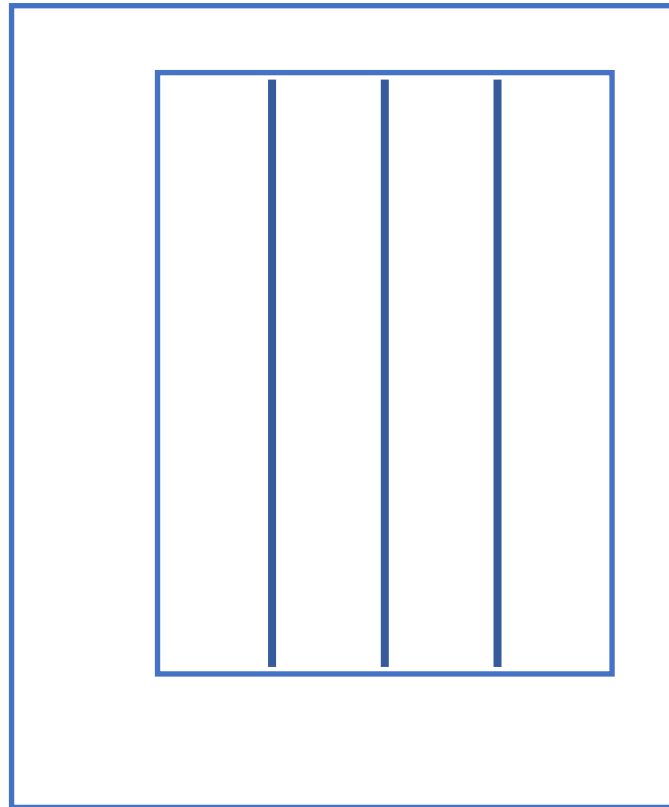
2. Draw your columns

You now have a
rectangle with 4
columns



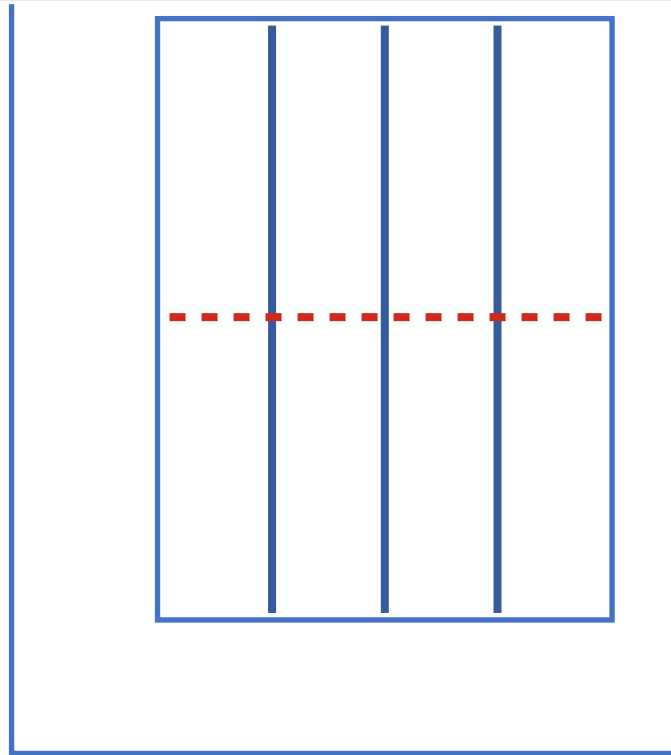
3. Draw your rows

You will repeat this process for rows but will make 7 lines instead of 3



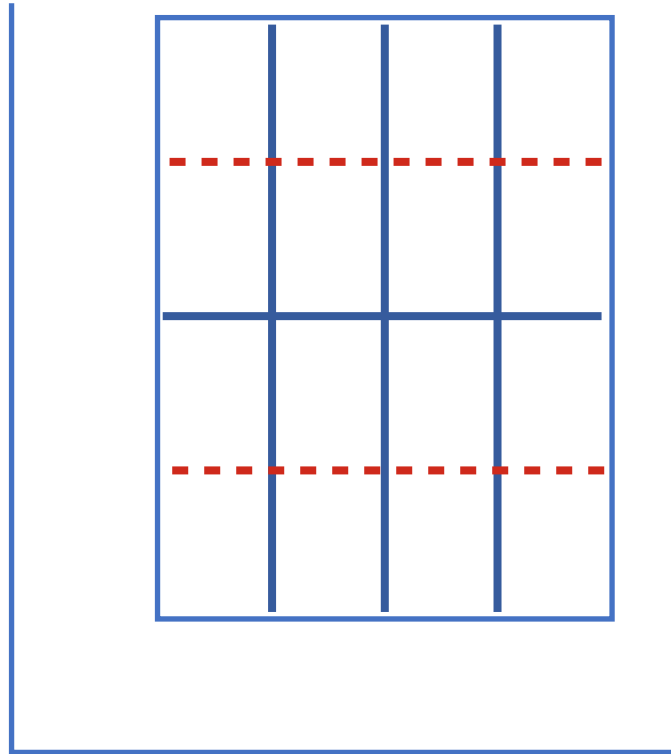
3. Draw your rows

1. Draw a line across the center of your rectangle



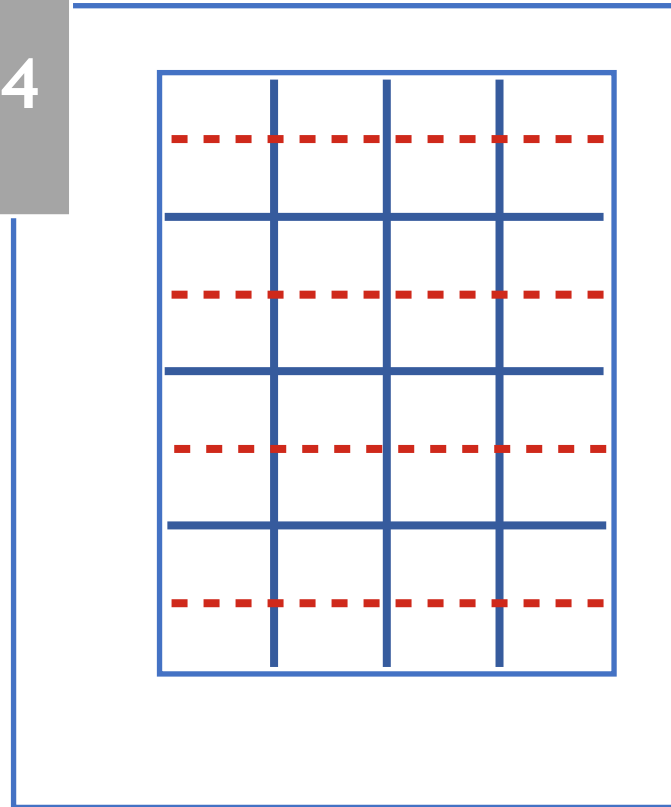
3. Draw your rows

2. Draw 2 lines: 1 across each of the 2 rows



3. Draw your rows

3. Draw 4 more lines:
1 across each of your 4
rows



4. Check your work & add labels

1. Make sure you have 4 columns by counting across

Note: Just count, **do not** write the numbers in!

1	2	3	4

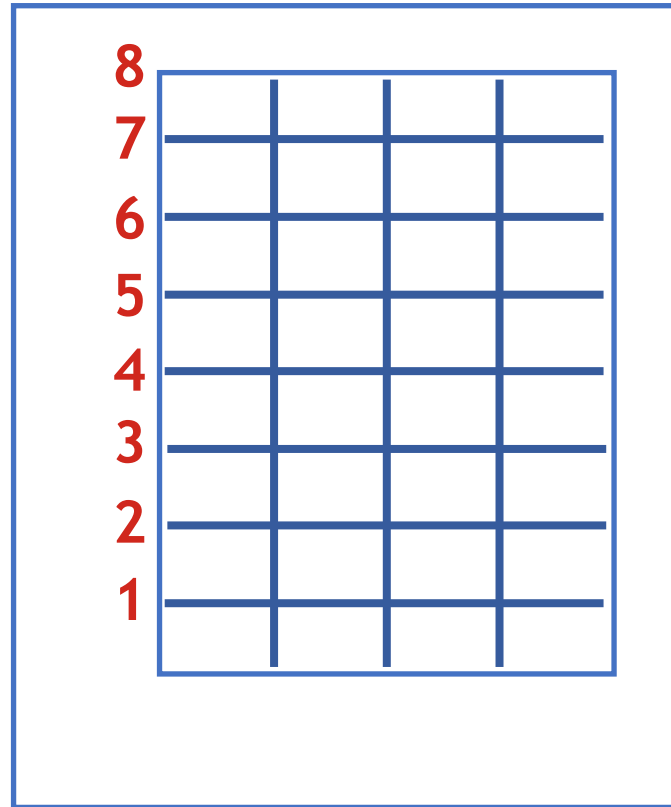
4. Check your work & add labels

2. Make sure you have 8 rows by counting down

1			
2			
3			
4			
5			
6			
7			
8			

4. Check your work & add labels

3. Write in labels for your rows



8				
7				
6				
5				
4				
3				
2				
1				

4. Check your work & add labels

4. Write labels for your columns. Use the 4 main branches of engineering:

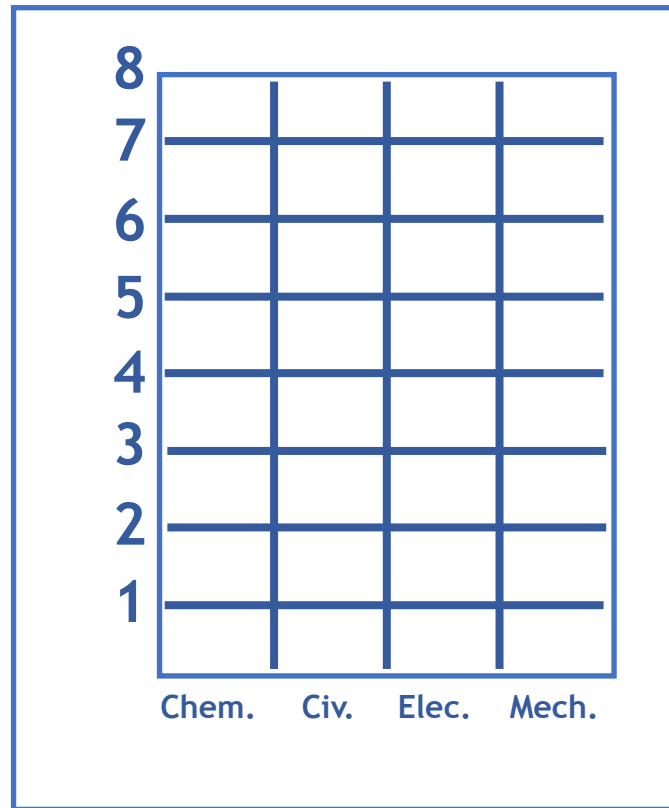
- Chemical
- Civil
- Electrical
- Mechanical

Note: If there isn't enough space to write the full words, use abbreviations:

- Chem.
- Civ.
- Elec.
- Mech.

8				
7				
6				
5				
4				
3				
2				
1				
	Chem.	Civ.	Elec.	Mech.

You're ready! Now let's learn how to complete the activity!

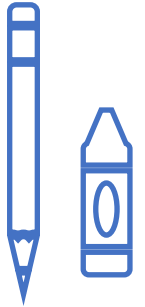


LEARN THE ACTIVITY

EEK! 

To complete the activity, you will need

- Your worksheet
- Something to color with
 - Crayons, markers, pencils,
- A computer, tablet, or smartphone

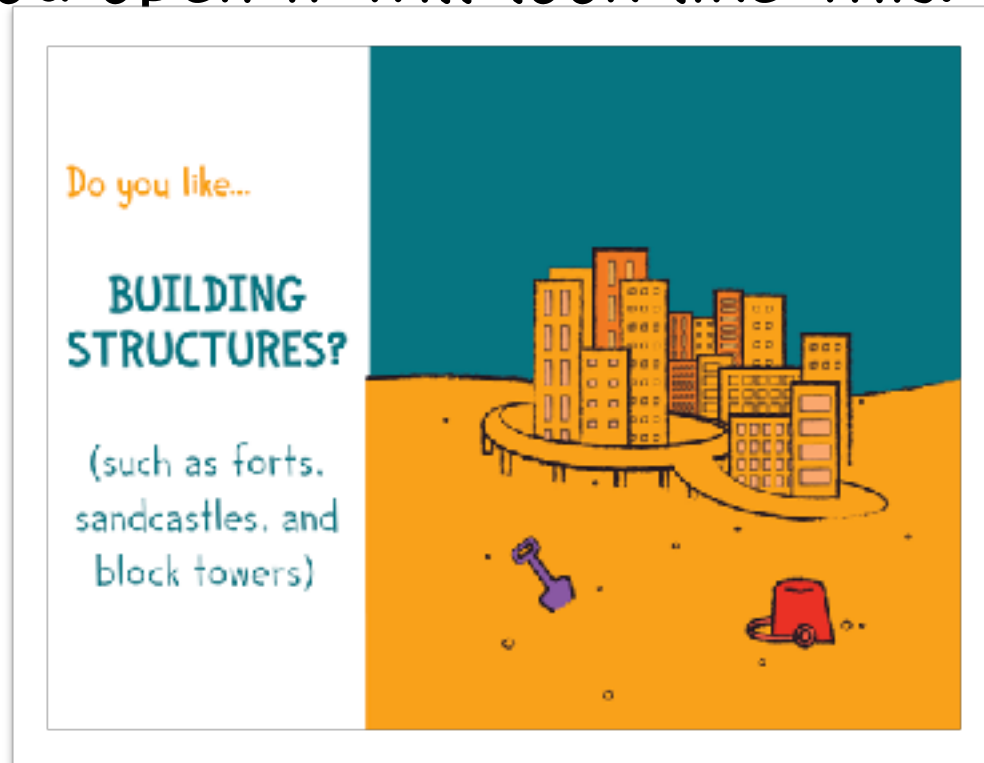


A grid worksheet for a coloring activity. The grid is 8 rows high and 4 columns wide. The rows are numbered 1 through 8 on the left side. The columns are labeled 'Chem.', 'Civ.', 'Elec.', and 'Mech.' at the bottom. The grid is enclosed in a large blue border.

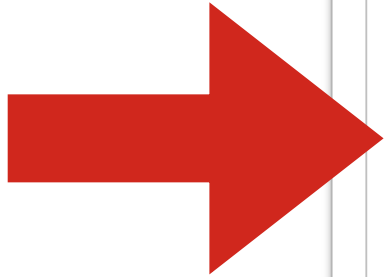
8				
7				
6				
5				
4				
3				
2				
1				
	Chem.	Civ.	Elec.	Mech.

1. Open the slideshow

- You will get the link at the end of this presentation
- When you open it will look like this:



2. Answer the question!



Once you have answered, you can move onto the next slide

Do you like...

**BUILDING
STRUCTURES?**

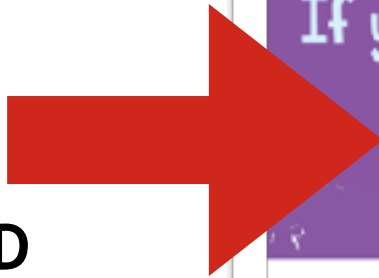
(such as forts,
sandcastles, and
block towers)



EEK! 

3. Add your points!

IF YOU SAID YES, color in a box on your worksheet for each box checked



If you said YES, give yourself a point for....

<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> Electrical
<input checked="" type="checkbox"/> Civil	<input checked="" type="checkbox"/> Mechanical

You might like ARCHITECTURAL ENGINEERING!

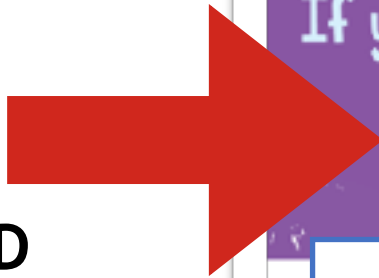
Architectural engineers work with architects to design comfortable and safe buildings. We use these buildings to eat, sleep, play, work, and more.

PUT YOUR ENGINEER HAT ON!

Imagine you are designing a building. How would people use it? How would you make it comfortable and safe?

3. Add your points!

IF YOU SAID YES, color in a box on your worksheet for each box checked



If you said YES, give yourself a point for....

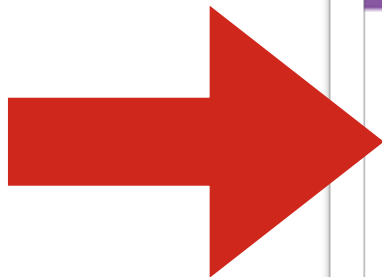
<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> Electrical
<input checked="" type="checkbox"/> Civil	<input checked="" type="checkbox"/> Mechanical

8				
7				
6				
5				
4				
3				
2				
1				
	Chem	Civ	Elec	Mech

URAL ENGINEERING!
ects to design comfortable and
o eat, sleep, play, work, and

ER HAT ON!
g. How would people use
able and safe?

4. Learn about engineers who work on this.



If you said YES, give yourself a point for....

- | | |
|---|--|
| <input type="checkbox"/> Chemical | <input checked="" type="checkbox"/> Electrical |
| <input checked="" type="checkbox"/> Civil | <input checked="" type="checkbox"/> Mechanical |

You might like ARCHITECTURAL ENGINEERING!

Architectural engineers work with architects to design comfortable and safe buildings. We use these buildings to eat, sleep, play, work, and more.

PUT YOUR ENGINEER HAT ON!

Imagine you are designing a building. How would people use it? How would you make it comfortable and safe?

5. Explore the questions each type of engineer tries to answer

If you said YES, give yourself a point for....

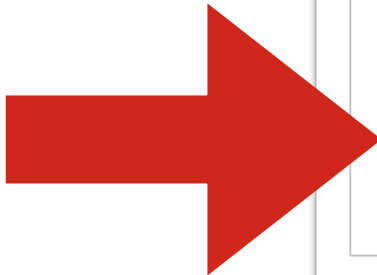
- | | |
|---|--|
| <input type="checkbox"/> Chemical | <input checked="" type="checkbox"/> Electrical |
| <input checked="" type="checkbox"/> Civil | <input checked="" type="checkbox"/> Mechanical |

You might like ARCHITECTURAL ENGINEERING!

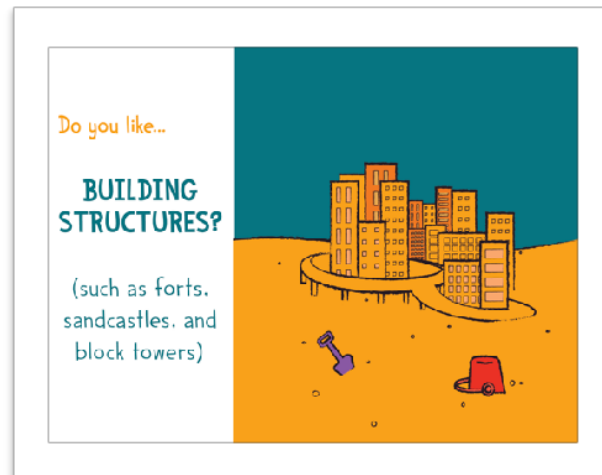
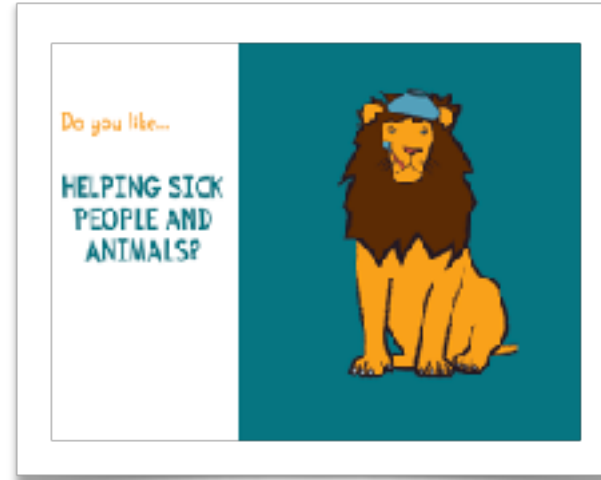
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PUT YOUR ENGINEER HAT ON!

Imagine you are designing a building. How would people use it? How would you make it comfortable and safe?

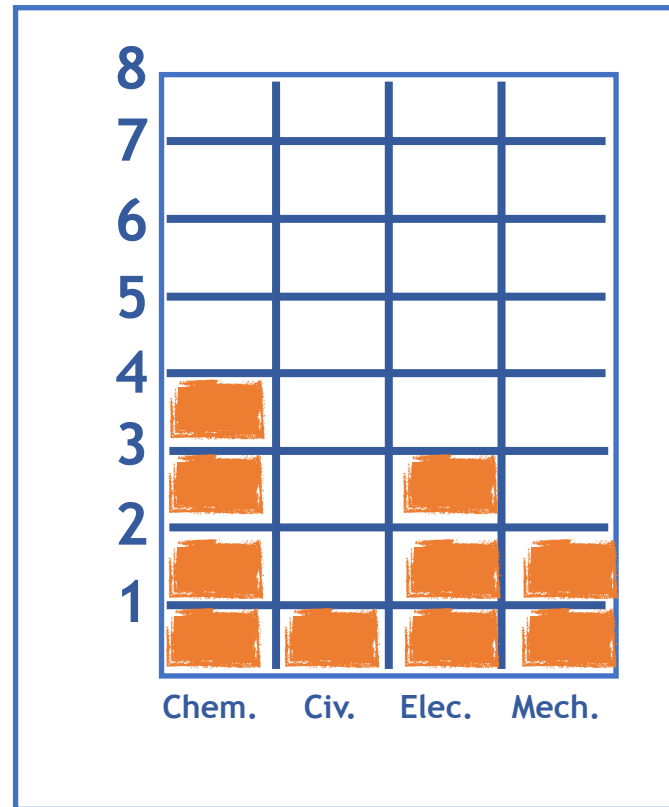


6. Repeat this for all of the slides



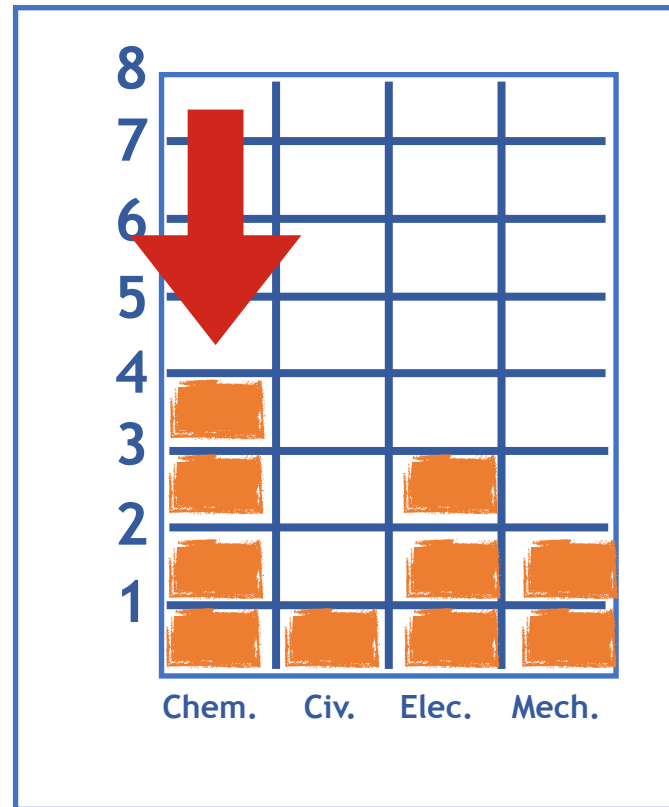
7. Review your worksheet

The column with the most boxes filled in is the type of engineer you are most like!

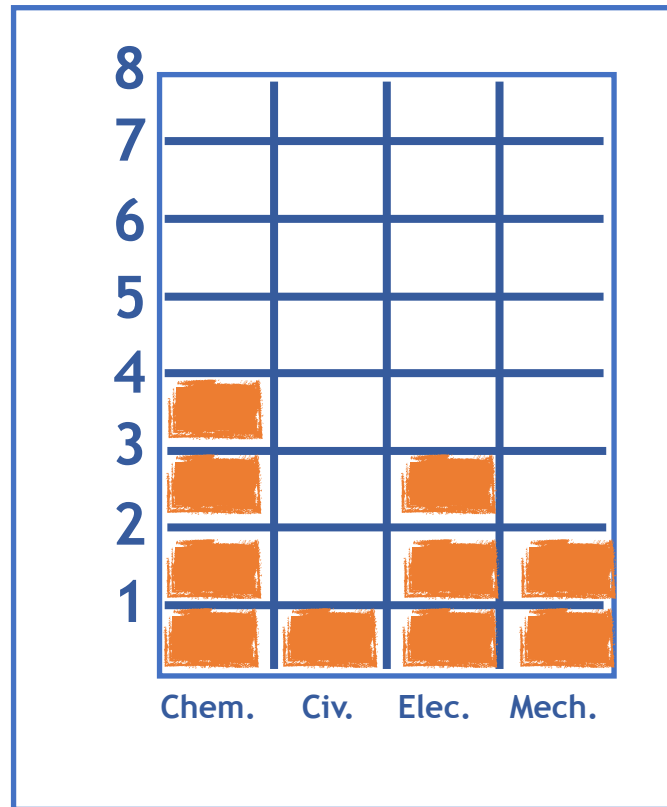


7. Review your worksheet

The column with the most boxes filled in is the type of engineer you are most like!



7. Review your worksheet



Ready to go?
Click the link to start!

[https://www.slideshare.net/secret/
2NRQDpdNFRwRW3](https://www.slideshare.net/secret/2NRQDpdNFRwRW3)