August 2nd 2016

RIGHT NOW

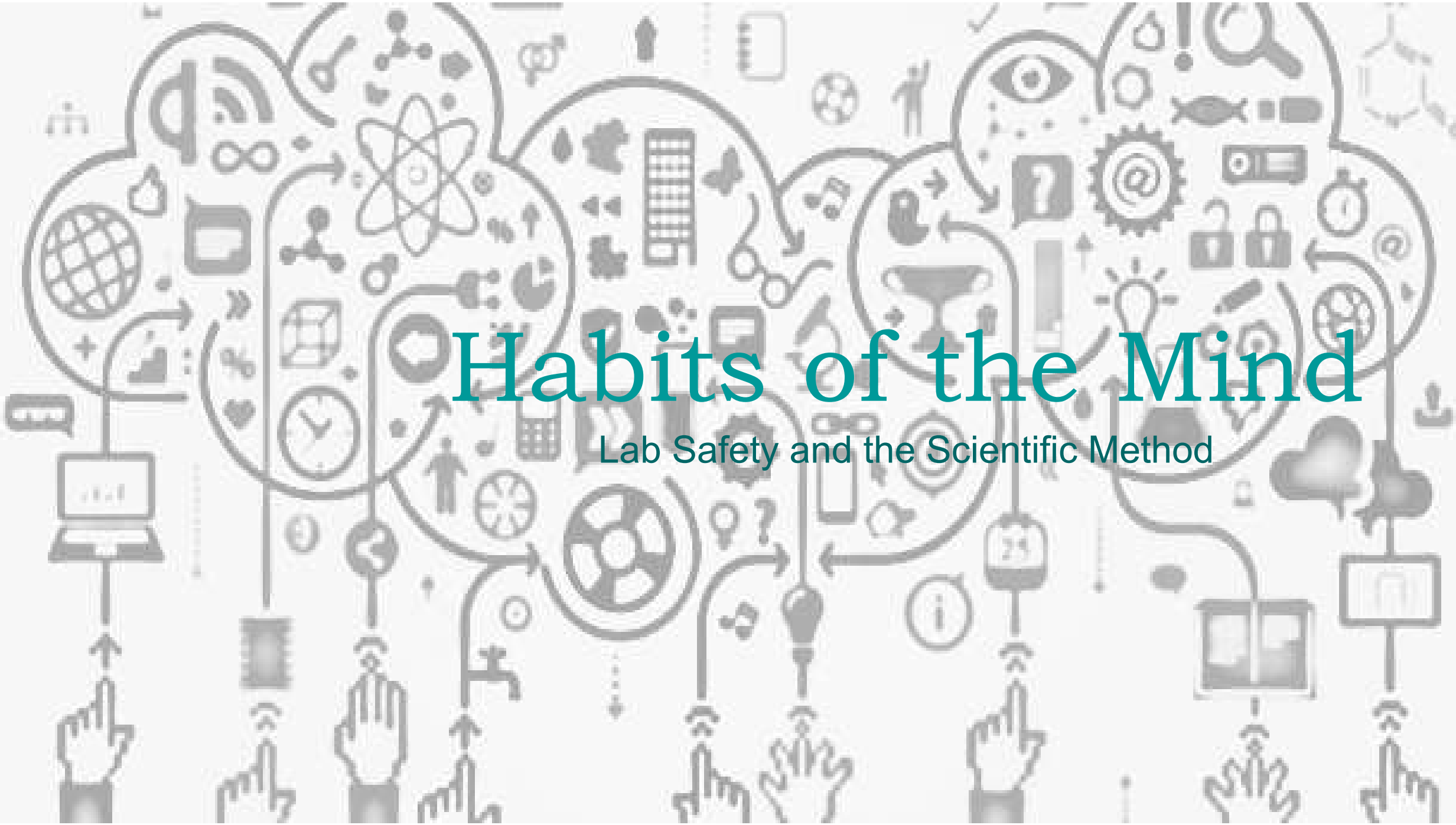
- Please get out a pencil/pen your notebook, folder, and any signed forms.
- Before class begins write down what the focus of our work time today is as well as your homework.
- **WT:** Lab Safety and Scientific Method
- **HW:** Create a lab safety poster/meme/slogan to encourage proper safety protocols in a lab.

Warm Up

- List as many things incorrect in the What's Wrong lab sheet as possible.

I will be able to:

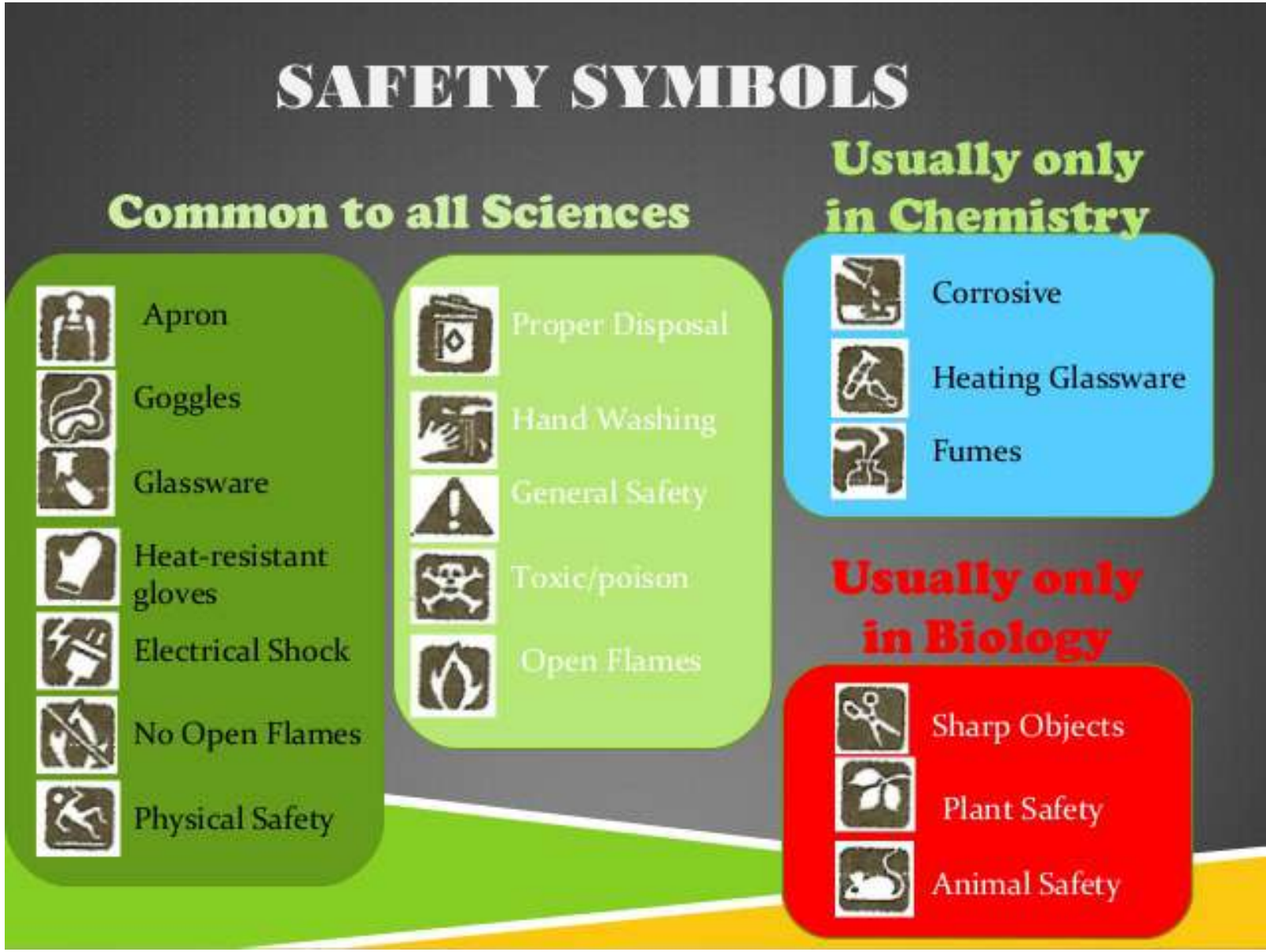
explain the process that scientific method uses as well as the safety protocols that are necessary to operating in a science lab.



Habits of the Mind

Lab Safety and the Scientific Method

Pick 5 safety symbols. Give one example of when the symbol would be present in a lab.



What is the safety symbol show below and why should it be included in labs today?

Disposal Alert

This symbol appears when care must be taken to dispose of materials properly.

Biological Hazard

This symbol appears when there is danger involving bacteria, fungi, or protists.

Open Flame Alert

This symbol appears when use of an open flame could cause a fire or an explosion.

Thermal Safety

This symbol appears as a reminder to use caution when handling hot objects.

Sharp Object Safety

This symbol appears when a danger of cuts or punctures caused by the use of sharp objects exists.

Fume Safety

This symbol appears when chemicals or chemical reactions could cause dangerous fumes.

Electrical Safety

This symbol appears when care should be taken when using electrical equipment.

Plant Safety

This symbol appears when poisonous plants or plants with thorns are handled.

Animal Safety

This symbol appears whenever live animals are studied and the safety of the animals and the students must be ensured.

Radioactive Safety

This symbol appears when radioactive materials are used.

Clothing Protection Safety

This symbol appears when substances used could stain or burn clothing.

Fire Safety

This symbol appears when care should be taken around open flames.

Explosion Safety

This symbol appears when the misuse of chemicals could cause an explosion.

Eye Safety

This symbol appears when a danger to the eyes exists. Safety goggles should be worn when this symbol appears.

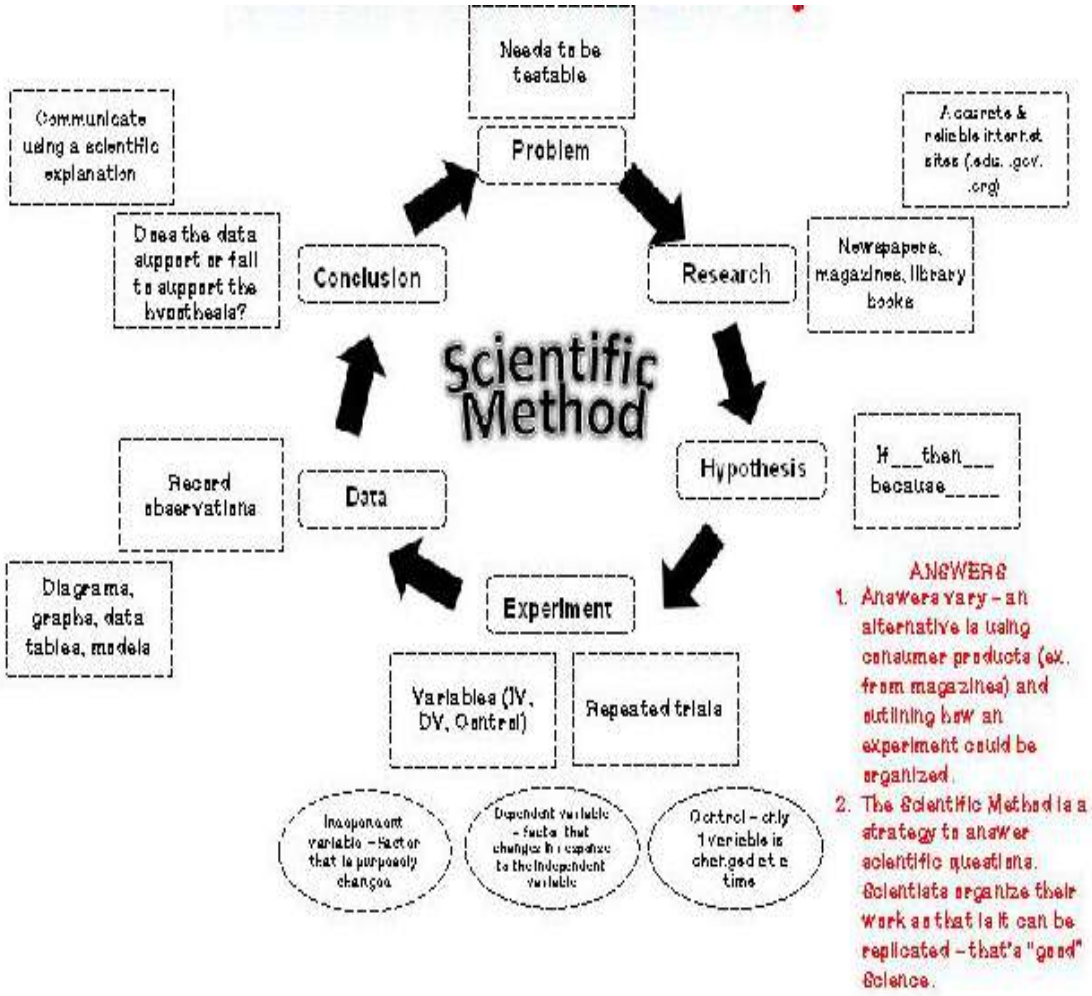
Poison Safety

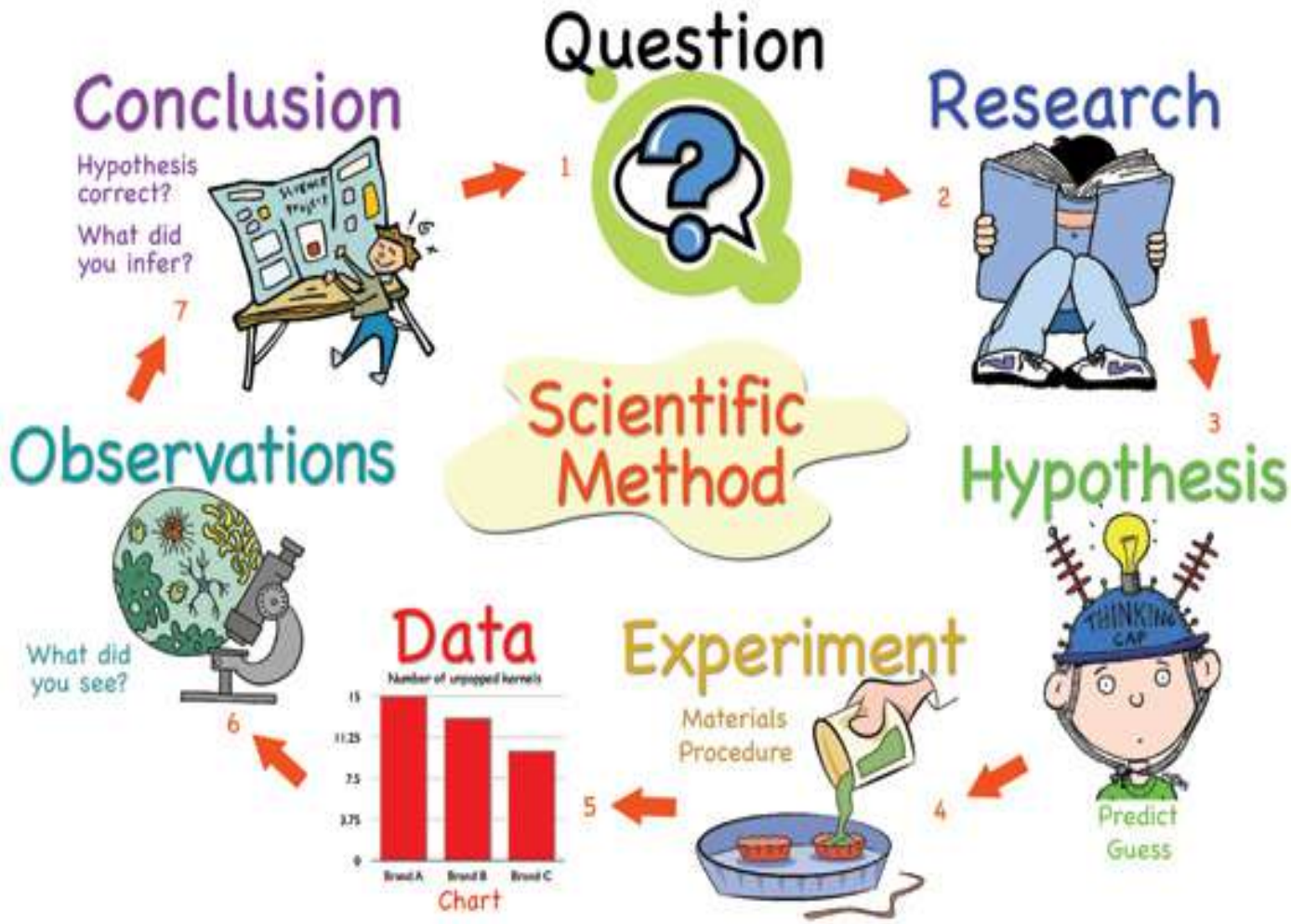
This symbol appears when poisonous substances are used.

Chemical Safety

This symbol appears when chemicals used can cause burns or are poisonous if absorbed through the skin.

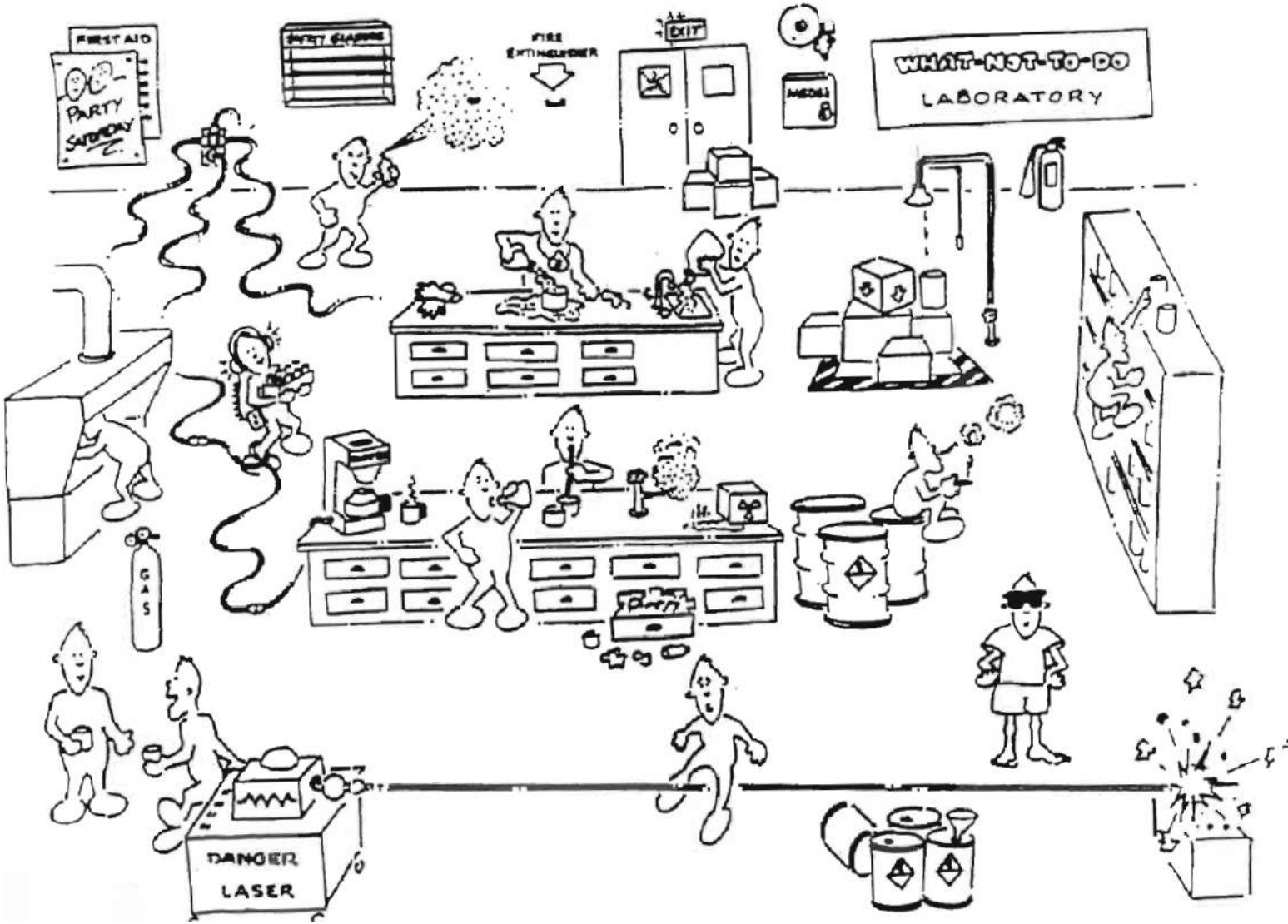
The Scientific Method Two Ways





Warm UP Competition!

Identify and explain as many of the incorrect lab procedures as possible.
This is timed and a competition.
When Phil wraps it up so should you.
Enjoy the musical stylings of Phil Collins as you work.
This song is “In the Air Tonight” if you want to find it for yourself.



August 3rd 2016

RIGHT NOW

- Please get out a pencil/pen your notebook, folder, and any signed forms.
- Before class begins write down what the focus of our work time today is as well as your homework.
- **WT:** Lab Safety and Scientific Method
- **HW:** Create a lab safety poster/meme/slogan to encourage proper safety protocols in a lab.

Warm Up

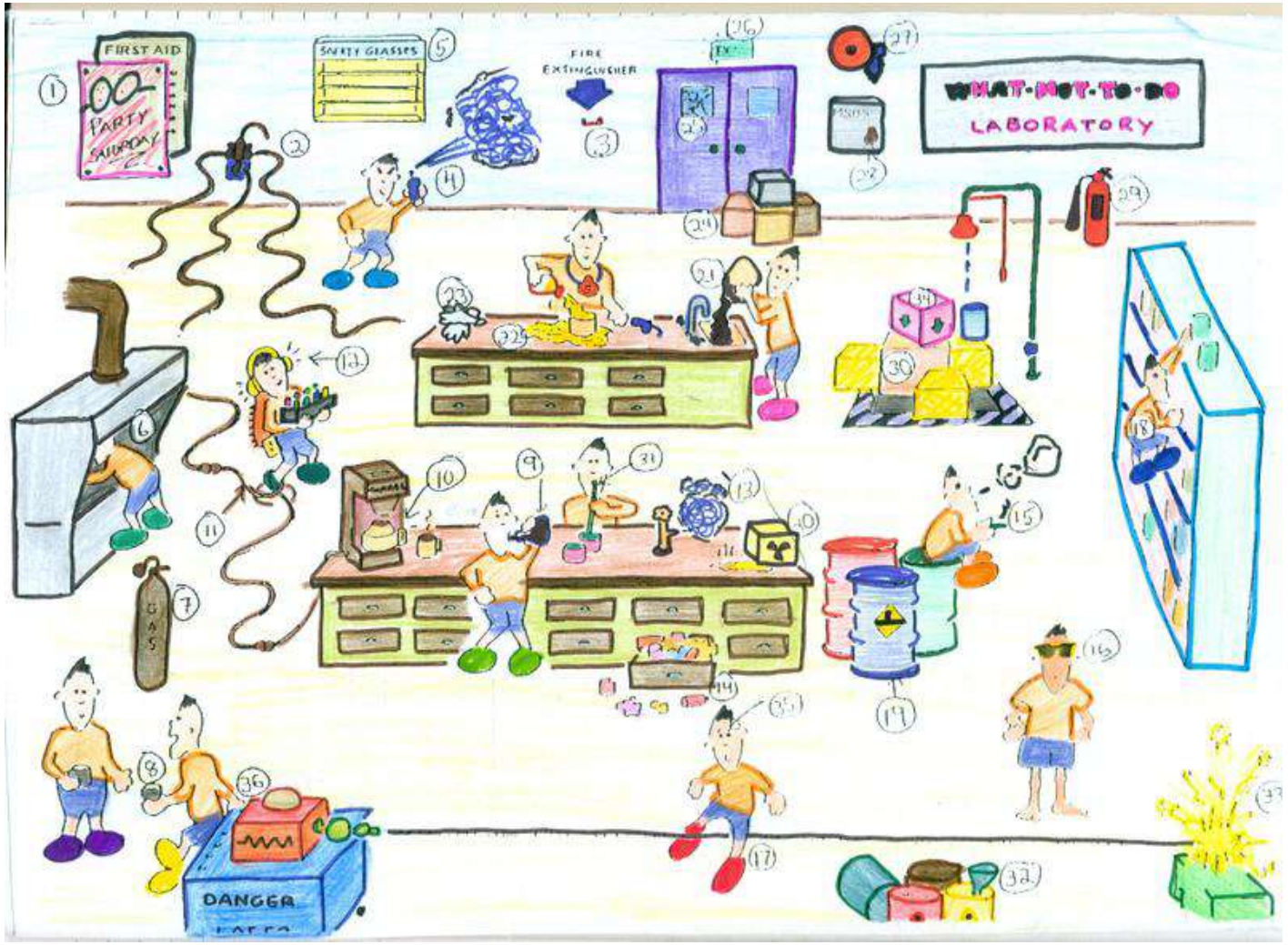
- What is the most important safety rule?
- Give 2 reasons that justify your opinion.

I will be able to:

explain the process that scientific method uses as well as the safety protocols that are necessary to operating in a science lab.

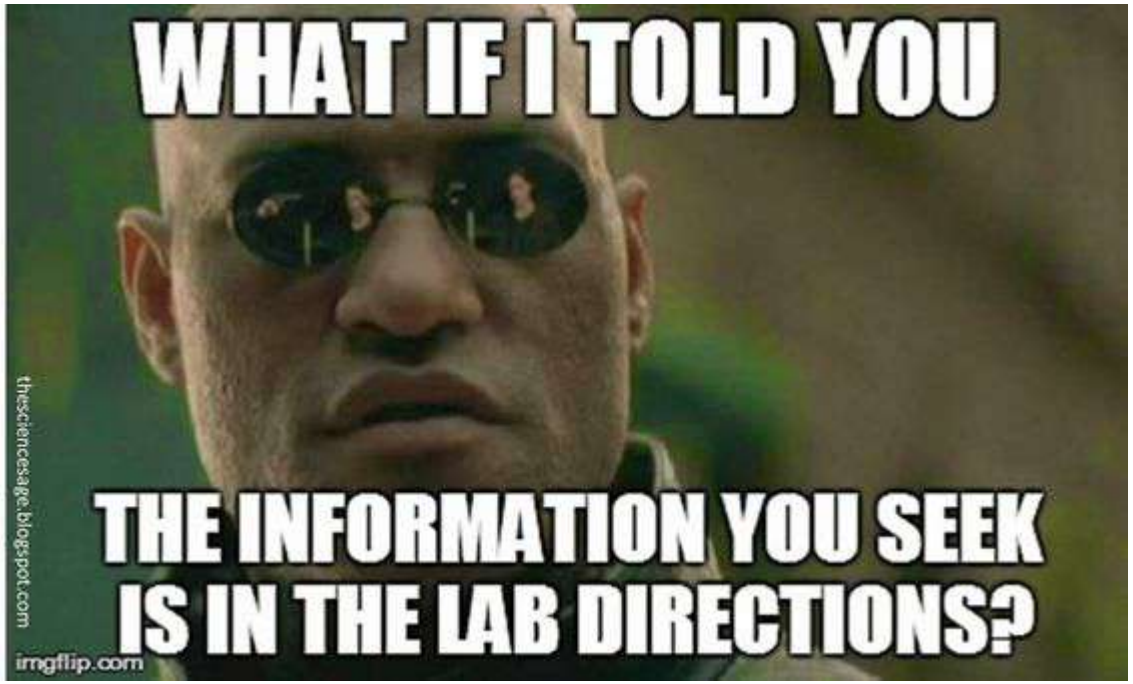
Homework 1 DUE FRIDAY!!

Finish identifying and explaining the lab violations in the picture.
Color your safety sheet and put it in your Matter Work Folder.



Homework 2 DUE FRIDAY!!

The students will create a lab safety poster/meme/slogan to encourage proper safety protocols in a lab.



A Beach Story

- Imagine that you and a friend are visiting a beach in Maine for the holidays. Lights adorn houses and you go for a walk to admire the decor. Bundled up in warm clothing, heads bent into the wind, you and your friend walk along the beach. Drifts of snow rise against a fence that in the summer once held back dunes of sand. Beyond the fence the glow of a row of beach houses draws your attention. There, from the eaves of the houses hangs glistening strips of ice. Only yesterday these icicles had been a mass of melting snow. Throughout the night the melted snow continually dripped freezing into lovely shapes. Near the ocean's edge, you spy a small puddle of sea water. Surprisingly, it was not frozen like the icicles.
- *What could be the reason for this curious observation?*

Think pair Share:

Create a hypothesis about the circumstances surrounding the beach story. Remember the theories that we already discussed in class.

scientific method

1 ask a question

- what do you want to know about the world?
- why do you want to know it?
- how can science help you answer the question?

2 do your researc

- see if anyone has asked your question before
- research similar questions
- ask others for advice

3 form a hypothesis

- what do you think is the answer to your question?
- why do you think it's the answer?
- can your prediction be tested?

4 test your hypothesis

- design an experiment
- perform your experiment carefully
- record your data

5 analyze your data

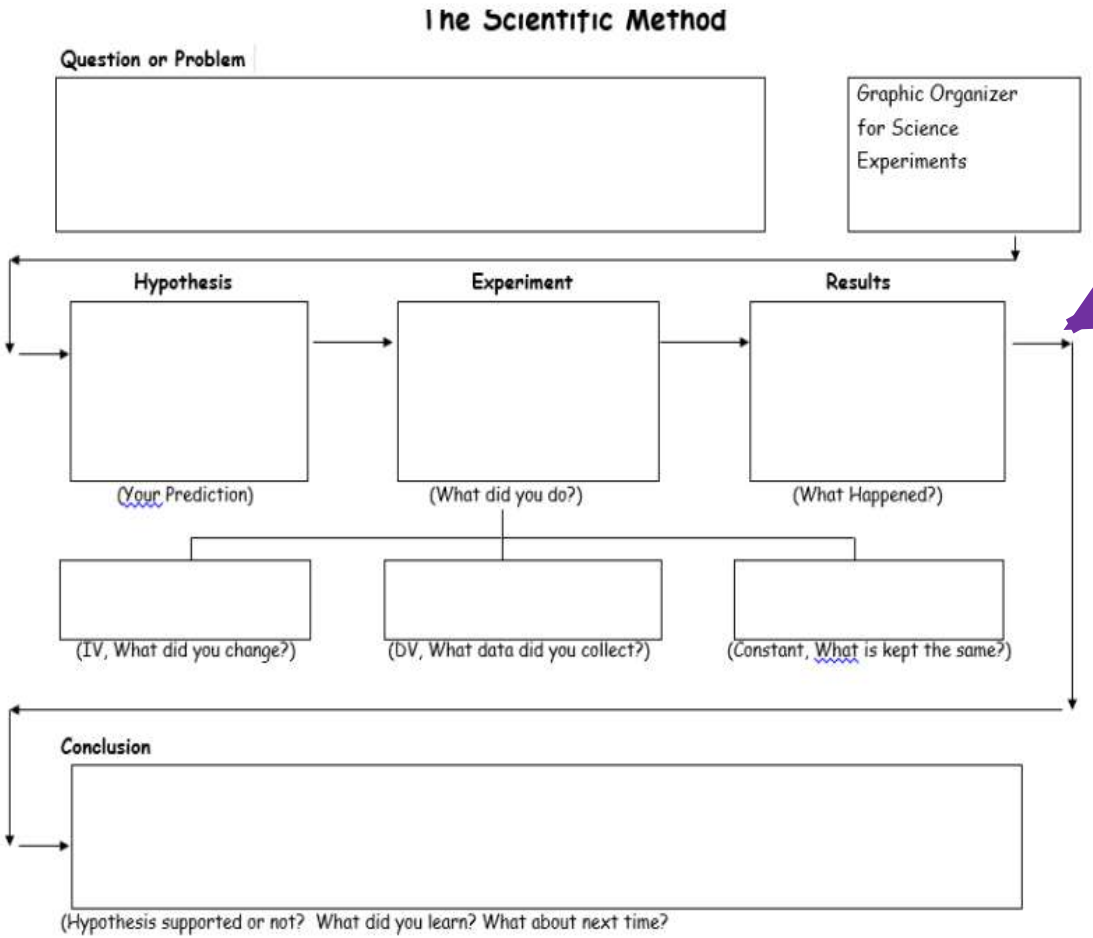
make a chart or graph
compare your data to thers'
see if your data fits your ypothesis

6 draw conclusions

- what did you learn from the experiment?
- was your hypothesis correct?
- what questions do you have now?

Set up our story in the Scientific Method

Does it have to look like this?



Closure:

In 3 to 4 sentences explain and defend your opinion.

- What makes a good hypothesis?
- How should a good hypothesis be written?

Review

- A hypothesis is an educated guess about how things work.
- Most of the time a hypothesis is written like this: "If _____[I do this] _____, then _____[this]_____ will happen." ...
- Your hypothesis should be something that you can actually test, what's called a testable hypothesis.

Tomorrow we are taking our Pre test!
Check out My website to preview Friday's power point DRY MIX!