

Name:

Class Period:

It is a profound and necessary truth that the deep things in science are not found because they are useful: they are found because it was possible to find them.

- J. Robert Oppenheimer

WEEK OF:

M	T	W	T	F

MONDAY

Scientific Inventions

THE ATOMIC BATTERY

Who invented the atomic battery? What purpose does it serve? How has it impacted society today?



TUESDAY

Research Hopper's achievements in the world of science. What is she most known for? Write down three interesting facts about her life.

FUN FACT: Hopper had a backward clock in her office to remind her that things don't have to work just one way.

GRACE HOPPER

WEDNESDAY

DEFINING TYPES OF SCIENCE

Define entomology. Then, create a list of 5 potential jobs that students of entomology can obtain. Which job appeals to you the most?



Entomology

Entomologist

DRAW THIS SCIENTIST AT WORK

WEEK OF:

M	T	W	T	F

THURSDAY

Draw a well-labelled diagram showing features of the 3 states of matter.

Did you know?

THE HELICOPTER WAS INVENTED ONLY 33 YEARS AFTER THE FIRST AIRPLANE WAS INVENTED BY THE WRIGHT BROTHERS AND ONLY 25 YEARS BEFORE THE FIRST ROCKET BROUGHT A HUMAN TO SPACE.



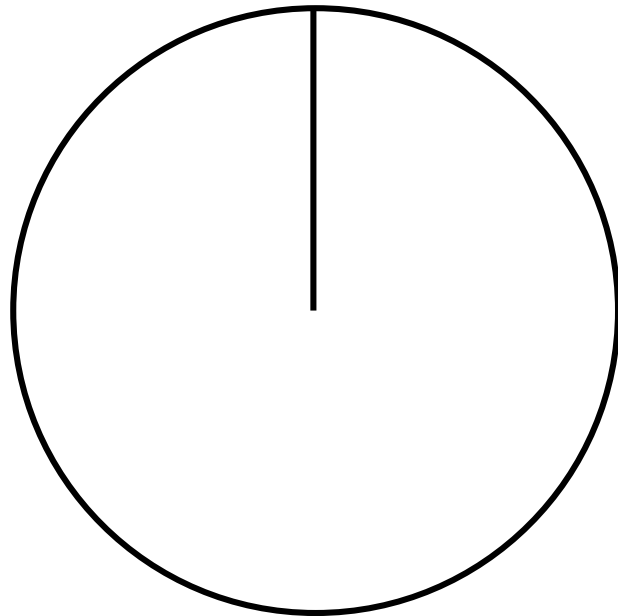
FRIDAY

Did you know the Universe is not just made up of atoms? In fact, atoms make up the smallest portion of the universe's composition.

Only 4.6% of the universe is composed of matter in the form of atoms!

Cold dark matter makes up 24% of the universe. It is likely that this is a type of sub-atomic particles that interact very weakly with ordinary matter. Experiments in particle accelerators, like the Large Hadron Collider, are looking for cold dark matter.

The remaining 71.4% of the universe is in the form of dark energy. Scientists do not know what dark energy is yet, but it seems to be responsible for the increasingly fast expansion of the universe.



Create a well-labelled pie graph using the percentages for atoms, cold dark matter and dark energy to show the composition of the universe.

Recall, you can determine the number of degrees each category occupies by first writing each percent as a decimal, then multiplying the decimal number by 360 degrees.

WEEK OF:

M	T	W	T	F

MONDAY

Volunteering is great way to help others, boost your resume and improve your own happiness. Where have you, or where could you, volunteer in your community? What have you learned from your experiences there?



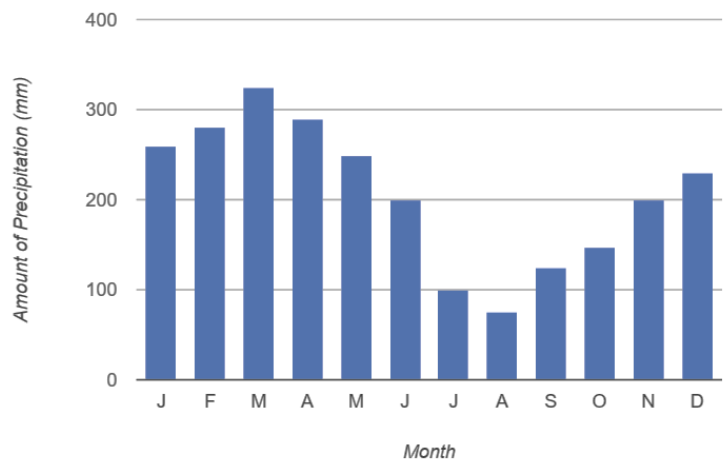
Did you know?

AT ITS MAXIMUM IN 1982, NEW ZEALAND HAD 3.2 MILLION PEOPLE AND 70 MILLION SHEEP - THAT'S 22 SHEEP PER PERSON!

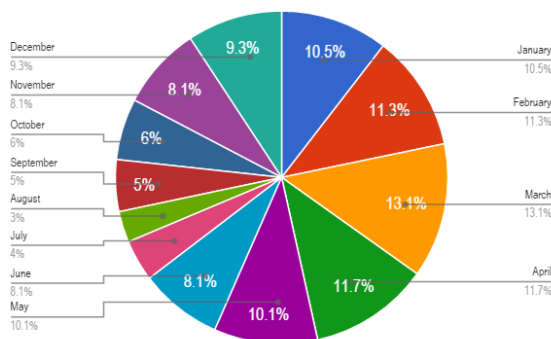
TUESDAY

Each of these three graphs were created using the same data: the amount of precipitation in mm for each month of the year. Which of the three graphs is best suited for the data. Support your opinion.

Amount of Precipitation (mm) vs. Month



Amount of Precipitation (mm)



Amount of Precipitation (mm)



WEEK OF:

M	T	W	T	F

MONDAY

Scientific Inventions

THE SELFIE STICK

Who invented the selfie stick? What purpose does it serve? How has it impacted society today?



TUESDAY

Research Florence's achievements in the world of science. What is she most known for? Write down three interesting facts about her life.

FUN FACT: Florence was the first woman admitted to the Geologic Society of America.

FLORENCE BASCOM

WEDNESDAY

DEFINING TYPES OF SCIENCE

Define astronomy. Then, create a list of 5 potential jobs that students of astronomy can obtain. Which job appeals to you the most?



Astronomy

Astronomer

DRAW THIS SCIENTIST AT WORK

THURSDAY

Mineral Qualities		
Mineral	Composing Elements	Hardness
Chalcocite	Copper, Sulfur	3
Dolomite	Calcium, Magnesium, Carbon, Oxygen	4
Diamond	Carbon	7
Quartz	Silicon, Oxygen	10
Tellurite	Tellurium, Oxygen	2

This data table provides information on five different minerals. The hardness rating of each mineral quantifies its scratch resistance. Minerals with higher hardness ratings can scratch minerals with lower hardness ratings.

1. Which element is the most common among these five minerals?
2. An unknown mineral can scratch dolomite. Based on this information, would this unknown mineral be more likely to *scratch* tellurite or *be scratched by* tellurite? Explain your answer.
3. Apatite is a mineral that can scratch dolomite but cannot scratch diamond. Which of the following would be a reasonable hardness rating for apatite: 2, 4, 6, 8? Explain your answer.

FRIDAY

Improving Inventions

Using realistic scientific examples, explain how you would improve the modern day debit/credit card.

DRAW YOUR IMPROVED INVENTION



WEEK OF:

M	T	W	T	F

MONDAY

Imagine you were going to live aboard the International Space Station for six months. Knowing that your food, hygienic items and clothes are provided, what would you bring with you to space?

TUESDAY

Many employers look beyond your education. Your demeanor, attitude, how you treat others and how well you can work with others is important in the work place. In 5 sentences, describe the qualities you have that would be useful in the workplace. Sell yourself!

WEDNESDAY

Write an explanation to a 5 year old child how rain is formed referring to the water cycle. Use terminology appropriate for this age group.



THURSDAY

Using a protractor, create, color and label an accurate pie chart that shows the percentages of Earth crust composition.

Recall, there are _____ degrees in a circle.

Oxygen: 47%

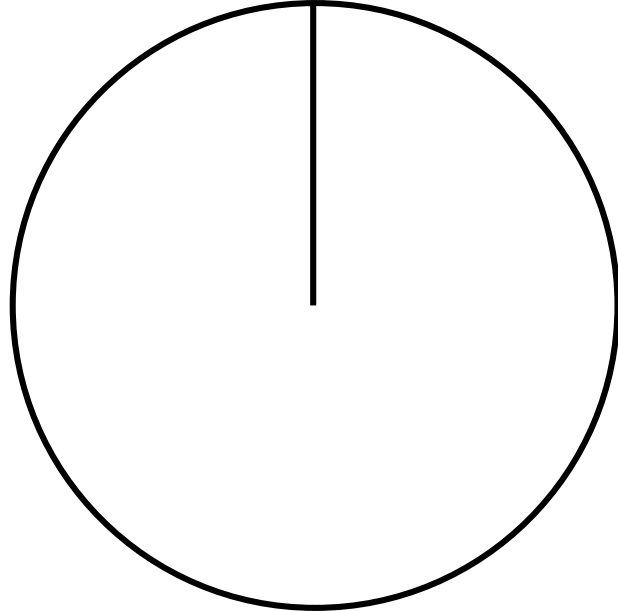
Silicon 27%

Aluminum 8%

Iron 5%

Calcium 4%

Other elements 9%



FRIDAY

DEFINING TYPES OF SCIENCE

Define physics. Then, create a list of 5 potential jobs that students of physics can obtain. Which job appeals to you the most?

Physics



Physics

DRAW THIS SCIENTIST AT WORK

WEEK OF:

M	T	W	T	F

MONDAY

Scientific Inventions

THE ASSEMBLY LINE

Who invented the assembly line? What purpose does it serve? How has it impacted society today?



TUESDAY

“If you learn from defeat, then you haven't really lost!”
- Zig Ziglar

Do you agree with this quote?
Explain why or why not.

WEDNESDAY

Which is more important: the brain or the heart?
Explain your reasoning.

Did you know?

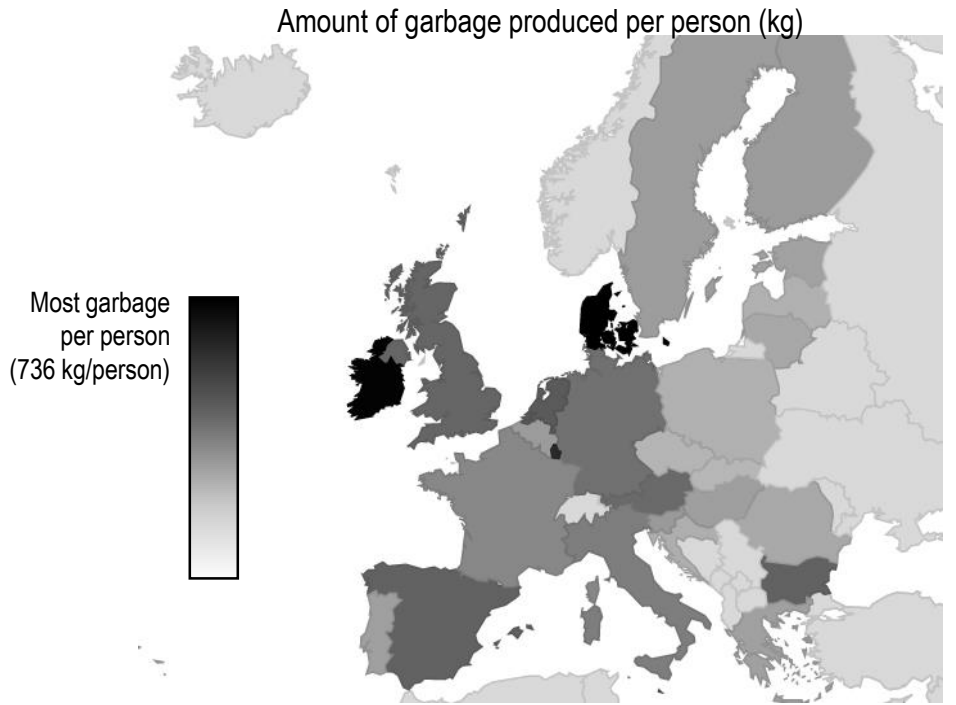
HELIUM ISN'T JUST GREAT FOR BLOWING UP BALLOONS AND MAKING YOUR VOICE SOUND FUNNY. HELIUM IS AN IMPORTANT GAS USED IN HOSPITALS. IT IS USED AS A COOLANT IN MRI MACHINES AND CAN BE GIVEN TO PATIENTS WITH BREATHING PROBLEMS TO INCREASE THEIR ABSORPTION OF OXYGEN.



THURSDAY

Some European countries produce the most garbage per person. Denmark ranks the highest with each person producing 736 kg/year of garbage! In fact, Danish people produce more than double the amount of garbage than people in some Eastern European countries.

Examine the GeoChart and suggest reasons why some countries' population may produce more garbage per person than other countries.



FRIDAY

Using scientific procedure writing, describe step-by-step how to carve a jack-o-lantern from a pumpkin. Remember to number each step.

Sketch it here:

