Cohen Middle School
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Elmira Heights, NY 14903
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Name: _____ Date: ~~January 22, 2020~~ March 2, 2020

Math: Quiz Lessons 5-9 nb 1-10
Social Studies: - Geography of Greece **HW: Cradle of WS/ Corrections due 3/9**
ELA: Daily Warm Up "The Sketches" HW: Article of the Week Due 3-6-20 Book of the Month Due 4-1-20
Science ① INV 4-5 Word SORT (VOCAB ATTACHED ② Read "Heating The Atmosphere" ③ complete organizer
Computer Apps/ Technology

Name: _____

Date: _____

ANCIENT GREECE
www.mrdowling.com

THE CRADLE OF WESTERN CIVILIZATION

The civilization of ancient Greece flowered more than 2500 years ago but the ideas of the ancient Greeks continue to influence the way we live today. Greece is made up of a peninsula and group of islands in southeastern Europe. A peninsula is a piece of land that is almost surrounded by water. The people of ancient Greece attempted to explain the world through the laws of nature. The ancient Greeks made important discoveries in science. They developed democracy, where people govern themselves rather than being ruled by a king. The Greeks also valued beauty and imagination. They wrote many stories and plays that continue to be performed today.

The people of ancient Greece could not farm most of their mountainous, rocky land, so they became excellent sailors who traveled to distant lands. Greek sailors learned from many different cultures and spread their ideas to many lands far from their home. The Greeks learned the alphabet from the Phoenicians, a sea-faring people from modern day Syria and Lebanon.

Ancient Greek geographers divided the world into regions we still use today. The lands west of Greece are still known as the western world, while the lands east of Greece are often referred to as the eastern world.

A cradle is a small bed for an infant. Many of the ideas that flourished in the western world were "born" in ancient Greece. This is why Greece is often known as the Cradle of Western Civilization.

Fill in the Blanks

The ancient G_____ introduced many valuable i_____ that i_____ the way we live today. The Greeks lived on a small, rocky p_____ in southeast E_____. They were unable to f_____ most of their l_____, so they turned to the s____, where they became excellent s_____.

Answer in complete sentences

*1. Why is most of Florida a peninsula?

*2. Why is the United States a democracy?

*3. Give examples of describing how ancient Greece influences our lives today.

*4. Why is the United States considered part of the western world?

*5. Explain why the Greeks might not have had a great influence on the world if they had better farmland?

*This is a higher order learning question. You must answer the question to the best of your ability, but any reasonable answer will be graded as correct.

Name_____ Class Period____

ELA 6 WARM UP
Week of 3/2/20

Be a learner not a finisher.

Monday Mistakes

Correct the sentence and rewrite it below: **"Alright I'll do it," sighed the dragon "Im not going to like it, but I'll stop breatheing fire on the village."** (2 missing punctuation marks, 2 spelling errors.)

_____

_____

_____

Tuesday Terms

Read the word and definition. Write a sentence that uses the word correctly and draw a quick sketch that will help you remember the word.

Word: **responsibility**	Definition: **doing the things you are expected to do and accepting the consequences (results) of your actions**
Sentence: _____ _____ _____ _____	Sketch:

Wednesday Word Ladder

Flip the paper over and complete the word ladder

Thursday Thoughts

"Unless someone like you cares an awful lot, nothing is going to get better. It's not." – Dr. Seuss

Write 2 to 3 sentences explaining what this quotation means.

_____

_____

_____

_____

Friday Figurative Language

Write a sentence that includes an example of onomatopoeia. (Onomatopoeia are words that sound like their meaning. Examples: buzz, splash, moo, meow)

_____

_____

_____

_____

_____

Name _____

Read each clue and write the answer in the blanks.
Use the first and last words to fill in the sentence under the ladder.

HINT! Words with a ★ are more challenging!

READING & WRITING

LINES & RHYMES

11. Written or spoken language in a non-poetic form.
Add 1 letter.

9. To stand a certain way for a picture.
Change 1 letter.

7. To shut.
Change 1 letter.

5. A long pipe used to water the grass.
Rearrange the letters.

3. A tool used in gardening.
Change 1 letter.

★ **1. Someone who writes poetry.**
Take away 2 letters.

Start Here

_ _ _ _ _

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p o e t r y

10. A common flower.
Change 1 letter.

8. Opposite of win.
Take away 1 letter.

6. Past tense of choose.
Add 1 letter.

4. What you wear on your foot for protection.
Add 1 letter.

★ **2. Edgar Allan _____.**
Take away 1 letter.

_____ **has stanzas, while** _____ **has paragraphs.**

Article of the Week Due: 3-6-20

newsela Name: Period:

Pioneering black NASA mathematician Katherine Johnson dies

By Associated Press, adapted by Newsela staff on 02.27.20
Word Count **828**
Level **950L**

Image 1. NASA space scientist and mathematician Katherine Johnson poses for a portrait at work at NASA Langley Research Center in 1980 in Hampton, Virginia. Photo: NASA/Donaldson Collection/Getty Images

Katherine Johnson was a mathematician who calculated rocket trajectories, or flight paths, and Earth orbits for NASA's early space missions. Johnson, who was portrayed as a pioneering black female aerospace worker in the 2016 hit film "Hidden Figures," has died. She was 101 years old.

NASA Administrator Jim Bridenstine said on Twitter that she died the morning of February 24. No cause was given.

Inspiring The World

Bridenstine tweeted that the NASA family "will never forget Katherine Johnson's courage and the milestones we could not have reached without her. Her story and her grace continue to inspire the world."

Johnson was one of the "computers" who solved equations by hand during NASA's early years. She first worked for the organization that gave birth to NASA, the National Advisory Committee for

Aeronautics (NACA).

Johnson and other black women initially worked in a racially segregated computing unit for NACA in Hampton, Virginia. It wasn't officially dissolved until NACA became NASA in 1958. Signs showed which bathrooms the women were allowed to use.

First Human Space Program

Johnson focused on airplanes and other research at first. Her work at NASA's Langley Research Center eventually shifted to Project Mercury, the nation's first human space program.

"Our office computed all the (rocket) trajectories," Johnson told The Virginian-Pilot newspaper in 2012. "You tell me when and where you want it to come down, and I will tell you where and when and how to launch it."

In 1961, Johnson did studies on trajectory for astronaut Alan Shepard's Freedom 7 Mission, the first to carry an American into space. The next year, she manually confirmed the calculations of a new IBM computer. The computer plotted astronaut John Glenn's space missions.

"Get the girl to check the numbers," a computer-skeptical Glenn had insisted in the days before the launch.

"Katherine organized herself immediately at her desk, growing phone-book-thick stacks of data sheets a number at a time," Margot Lee Shetterly wrote in her 2016 book "Hidden Figures." The film was based on her book.

"It took a day and a half of watching the tiny digits pile up: eye-numbing," Shetterly wrote.

Shetterly said on February 24 that Johnson was special "in every way."

Shined A Light On Stories Of Many Others

"The wonderful gift that Katherine Johnson gave us is that her story shined a light on the stories of so many other people," Shetterly said. "She gave us a new way to look at black history, women's history and American history."

Shetterly noted that Johnson died during Black History Month. It was also a few days after the anniversary of Glenn's orbits of the Earth on February 20, 1962. Helping Glenn was among her most important accomplishments.

"We get to mourn her and also commemorate the work that she did," Shetterly said.

Johnson considered her work for the Apollo spacecraft to be her greatest achievement in space exploration. Her calculations helped the Apollo land on the moon. She also worked on the Space Shuttle program before ending her career in 1986.

Presidential Medal Of Freedom

Johnson and her co-workers had been relatively unknown heroes of America's Space Race. However, in 2015, President Barack Obama awarded the 97-year-old Johnson the Presidential Medal of Freedom. It is the highest recognition a citizen of the country can be given.

The "Hidden Figures" book and film followed. It tells the stories of Johnson, Dorothy Vaughan and Mary Jackson. The film was a candidate for a Best Picture Oscar and made more than $200 million worldwide.

In 2017, Johnson was brought on stage at the Oscars ceremony to thunderous applause. Jackson and Vaughan had died in 2005 and 2008, respectively.

Johnson was born Katherine Coleman on August 26, 1918. She grew up in White Sulphur Springs, West Virginia. The small town had no schools for black children beyond the eighth grade.

Her father drove Johnson and her siblings to Institute, West Virginia, for high school and college. They attended the historically black West Virginia State College.

Johnson taught at black public schools. She would later become one of three black students to integrate, or mix with other races, at West Virginia's graduate schools in 1939.

She left graduate school to start a family with her husband. She later returned to teaching when her three daughters grew older. In 1953, she started working at the all-black West Area Computing unit at Langley Memorial Aeronautical Laboratory in Hampton.

Looking back, she said she had little time to worry about being treated unequally.

"My dad taught us 'you are as good as anybody in this town, but you're no better,'" Johnson told NASA in 2008. "I don't have a feeling of inferiority. Never had. I'm as good as anybody, but no better."

Quiz

1 Read the section "Shined A Light On Stories Of Many Others."

Select the sentence from the section that suggests that Katherine Johnson's contributions extend beyond her accomplishments at NASA.

(A) "She gave us a new way to look at black history, women's history and American history."

(B) Helping Glenn was among her most important accomplishments.

(C) "We get to mourn her and also commemorate the work that she did," Shetterly said.

(D) Johnson considered her work for the Apollo spacecraft to be her greatest achievement in space exploration.

2 Read the conclusion below.

Johnson's mathematical ability was highly valued by astronauts on NASA's early space missions.

Which sentence from the article provides the BEST support to the statement above?

(A) Katherine Johnson was a mathematician who calculated rocket trajectories, or flight paths, and Earth orbits for NASA's early space missions.

(B) Johnson was one of the "computers" who solved equations by hand during NASA's early years.

(C) Her work at NASA's Langley Research Center eventually shifted to Project Mercury, the nation's first human space program.

(D) "Get the girl to check the numbers," a computer-skeptical Glenn had insisted in the days before the launch.

3 Which answer choice accurately characterizes the reaction of Margot Lee Shetterly to how Katherine Johnson manually confirmed the calculations of a new IBM computer?

(A) Shetterly was perplexed about why Johnson took so much time to manually confirm the calculations of a computer.

(B) Shetterly thought it was ridiculous that Johnson was expected to manually confirm the calculations of a computer.

(C) Shetterly was amazed at what Johnson had to do to manually confirm the calculations of a computer.

(D) Shetterly appreciated that Johnson was able to quickly perform the task of manually confirming the calculations of a computer.

4 Read the following selection.

"Our office computed all the (rocket) trajectories," Johnson told The Virginian-Pilot newspaper in 2012. "You tell me when and where you want it to come down, and I will tell you where and when and how to launch it."

WHY did the author include this selection?

(A) to suggest that Johnson had more responsibility than other people who worked at NASA

(B) to indicate that Johnson enjoyed talking about the work she did at NASA

(C) to suggest that Johnson felt burdened by the responsibility she had at NASA

(D) to indicate that Johnson was very confident about the work she did at NASA

Due: 4-1-20 NAME _____

IMAGINE IT!

Imagine that the book you are reading is going to be turned into a movie or that the author is going to write a sequel. Use your imagination to design a movie poster or sequel book cover below.

TITLE _____ AUTHOR _____

This or That

Imagine that the book that you are reading is going to be turned into a movie. Design the movie poster. Include 3-4 sentences summarizing the book to accompany the poster.

Imagine that the author of the book you are reading is going to write a sequel. Design the cover of the sequel below. Include 3-4 sentences describing what might happen in the sequel.

ABOUT

Book of the Month Due: 4/1/20

Name _____

Reading Response Prompt _____

THIS OR THAT

	1	2	3
Personal Reactions to the Text	Gives a response without explanation. Reactions may be superficial, mere summaries, or vague.	Reactions are supported by examples from the text, but provide little detail.	Multiple reactions to the text are supported by many details and examples.
Task Fulfillment	None of the tasks for this reading response were completed.	Some of the tasks for this reading response were completed.	All of the tasks for this reading response were completed.
Originality	The assignment does not demonstrate any originality.	Some original ideas are evident in the assignment.	The assignment showcases exceptional originality and creativity.
Work Quality & Effort	Poor work quality or effort.	Work quality and effort is mediocre.	Extraordinary work quality and effort demonstrated.
Mechanics, Usage, and Grammar	4+ mistakes in mechanics, usage, and/or grammar	1-3 mistakes in mechanics, usage, and/or grammar.	No mistakes in mechanics, usage, and grammar.

Total _____/15

Discussion Questions

Why do you think the plain bellied Sneetches felt badly about themselves?

Why do you think the plain bellied Sneetches wanted stars on their bellies?

Why do you think the plain bellied Sneetches allowed the star bellied Sneetches to treat them so badly?

What do you think might have happened if a star bellied Sneetch had taken a stand and told the other star bellied Sneetches that what they were doing was wrong? Do you think other star bellied Sneetches would have acted differently? Why or why not?

Once the plain bellied Sneetches got stars on their bellies, why do you think the star bellied Sneetches didn't want stars on their own bellies?

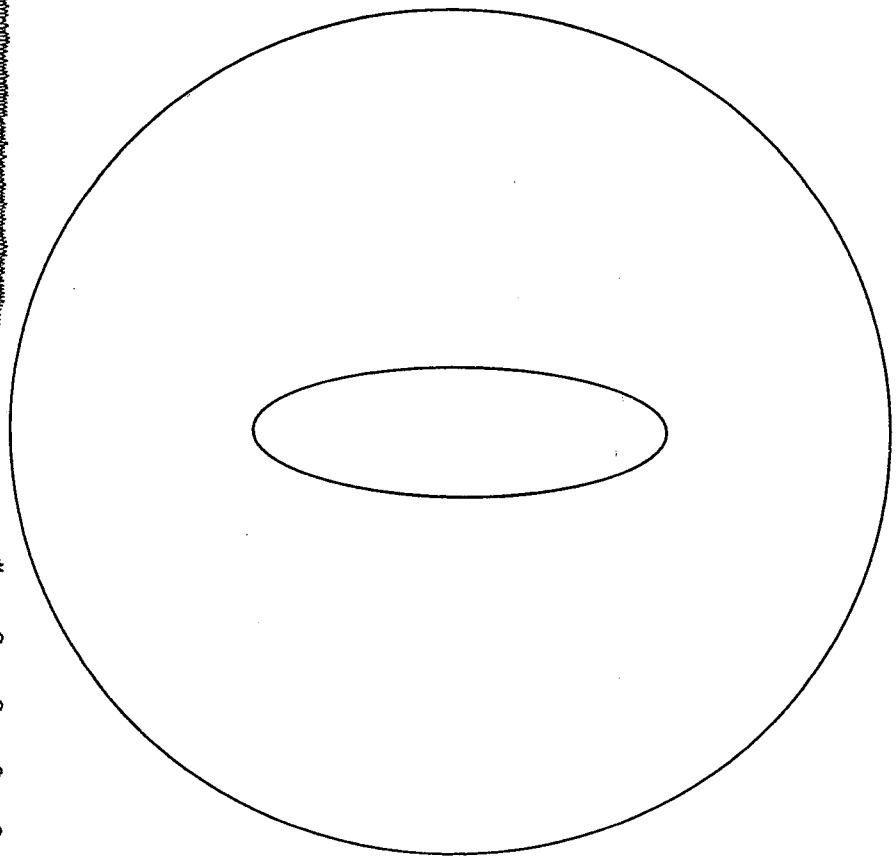
Besides the stars, do you think there was a difference between the star and plain bellied Sneetches? If yes, what would that difference be?

The Theme of *The Sneetches*

What is Dr. Seuss' message in *The Sneetches*?

What evidence do you have that this is the theme of the story?

Main Idea of *The Sneetches*



Renaming *The Sneetches*

Based on your discussion and digging into the text, what do you think would be a good title for *The Sneetches*?

Why do you think this would be a good title?

Heating the Atmosphere

You may have had an experience like this one. The campfire has burned down to a bed of hot coals, perfect for toasting some marshmallows. The only stick available is about a meter long, but you go for it. You can hardly stand the heat from the coals because the stick is short, but after a minute the marshmallow is brown and gooey. You pop it into your mouth. Yikes! Didn't wait long enough for it to cool.

This story includes a couple of intense heat experiences. But have you ever stopped to think about what heat really is? What is the heat that you felt coming off the coals and the heat in the marshmallow that burned your tongue?

Heat = Movement

Objects in motion have energy. The faster they move, the more energy they have. Energy of motion is called **kinetic energy.**

Matter, like nails, soda bottles, water, and air, is made of atoms and molecules. Atoms and molecules, even in steel nails and glass bottles, are in motion. In solids, the molecules vibrate back and forth. In liquids and gases, the molecules move all over the place. The faster molecules vibrate or move, the more energy they have.

Molecular motion is molecular kinetic energy, and that is heat. The amount of kinetic energy in the molecules of a material determines how much heat it has. The molecules in hot materials are moving fast. The molecules in cold material are moving slowly.

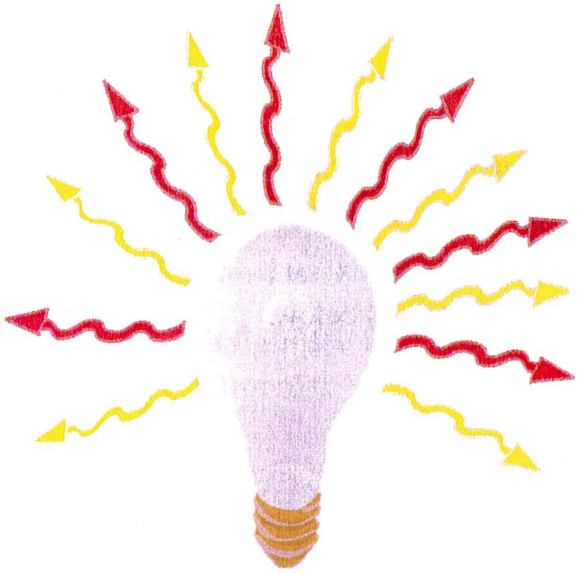
Heat Transfer

Heat can move, or transfer, from one place to another. Scientists sometimes describe heat transfer as heat flow, as though it were a liquid. Heat is not a liquid, but flow is a pretty good way to imagine its movement.

Heat flows from a hotter location (more energy) to a cooler one (less energy). For example, if you add cold milk to your hot chocolate, heat flows from the hot chocolate to the cold milk. The hot chocolate cools because heat flows away; the cold milk warms because heat flows in. Soon the chocolate and the milk arrive at the same temperature, and you gulp them down.

Heat Transfer by Radiation

There are many different forms of energy, including heat and light. If you heat an object, like the burner on a stove, to a high enough temperature, it will get red hot. When this happens, the burner is giving off two forms of energy, heat and light. If you put your hands near a lightbulb, you can see light and feel heat, even though you are not touching the bulb. This kind of energy that travels right through air is **radiant energy.**



Radiant energy travels in the form of **rays.** Heat and light rays radiate from sources like the intensely hot campfire coals, lightbulbs, and the Sun.

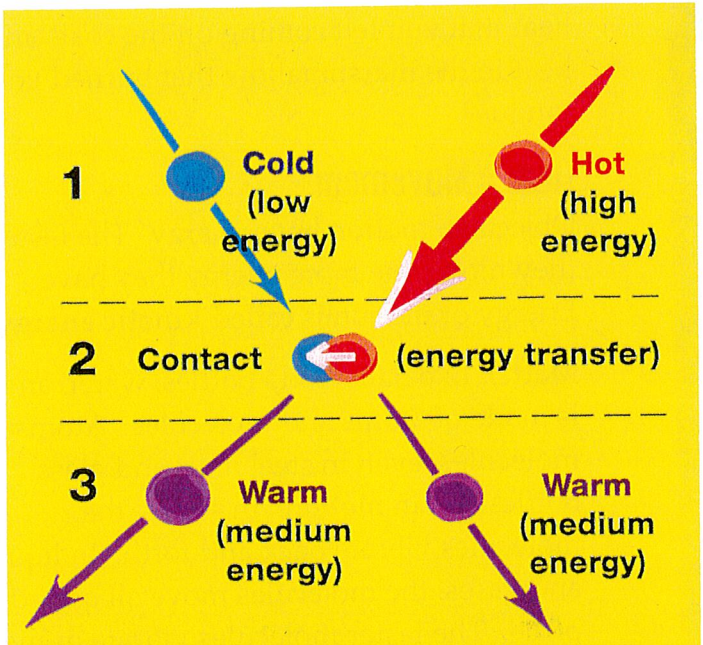
Energy rays from the Sun pass through Earth's atmosphere. We call this **solar energy.** When solar energy hits a molecule, such as a gas molecule in the air, a water molecule in the ocean, or a molecule in the soil, the energy can be **absorbed.** Absorbed energy increases the kinetic energy (movement) of the molecules in the air, water, or soil. Increased kinetic energy equals increased heat.

Radiation is one way energy moves from one place to another. Materials don't have to touch for energy to transfer from one to the other.

Heat Transfer by Conduction

Think about that hot toasted marshmallow or maybe a slice of pizza straight from the oven going into your mouth. This kind of memorable experience is another kind of energy transfer. When energy transfers from one place to another *by contact,* it is called **conduction.**

The fast-moving molecules of the hot pizza bang into the slower molecules of your mouth. The molecules in your tongue gain kinetic energy. At the same time, molecules of the hot pizza lose kinetic energy, so the pizza cools off. Some of the pizza kinetic energy is conducted to heat receptors on your tongue, causing them to send a message to your brain that says "Hot!"



A "hot" molecule with a lot of kinetic energy collides with a "cold" molecule with little kinetic energy. Energy transfers at the point of contact. The cold molecule then has more energy, and the hot molecule has less energy.

When you heat water in a pot, the water gets hot because it comes in contact with the hot metal of the pot. Kinetic energy transfers from the hot metal molecules to the cold water molecules by contact, which is conduction.

Heat Transfer to the Atmosphere

The atmosphere is heated by radiant energy from the Sun—solar energy. Lots of different kinds of rays are sent out by the Sun, but the most important ones are visible light and invisible light called infrared radiation. It seems pretty straightforward. The molecules in the air absorb the incoming radiation to increase their kinetic energy. But that's not what happens.

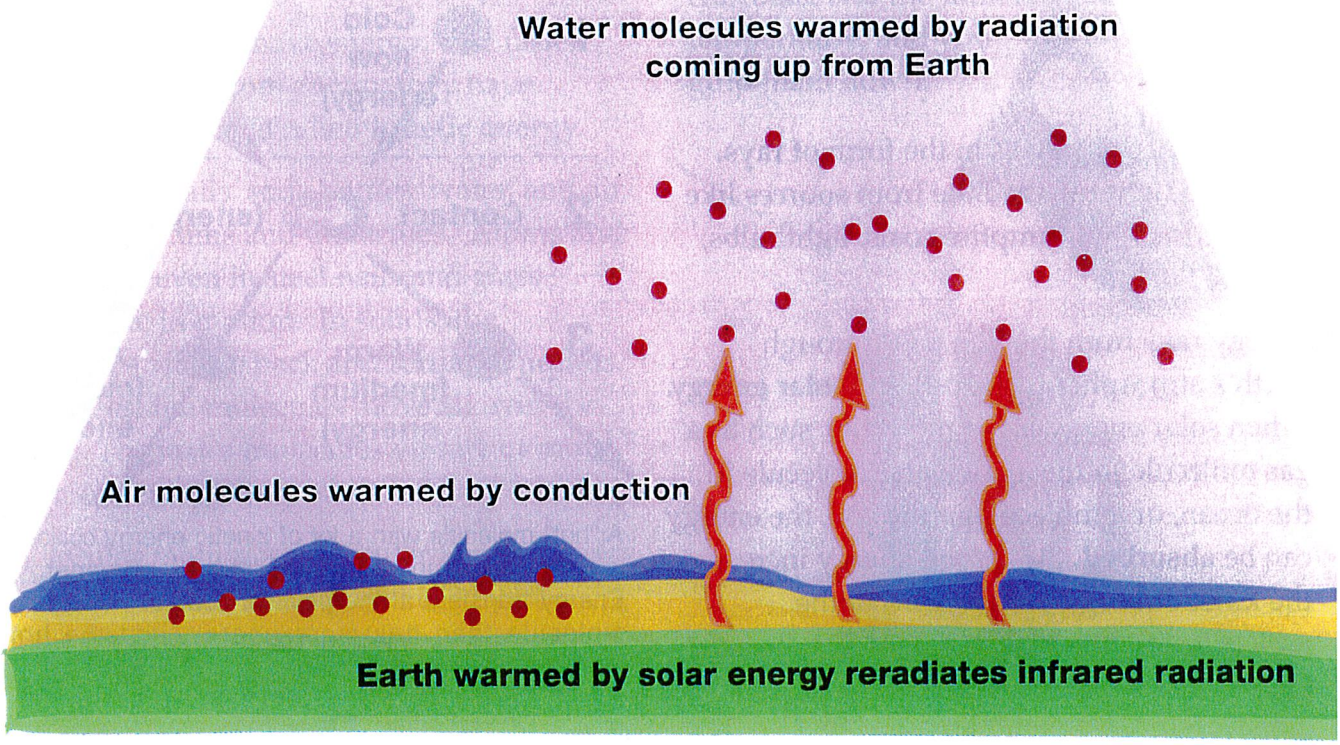
Air is 99% nitrogen and oxygen molecules. Neither of these molecules absorbs visible light or infrared radiation. It just doesn't happen. Only water vapor and carbon dioxide absorb significant amounts of radiant energy, and this is mostly infrared rays, not visible light.

If only a tiny part of the atmosphere gets hot from incoming solar energy, how does the rest of the atmosphere get hot?

Visible light *is* absorbed by Earth's surface. The land and seas warm up. The air molecules that come in contact with the warm land and water molecules gain energy by conduction. But there is more.

The warm land and seas also **reradiate** energy. This is a very important idea. Earth actually gives off infrared radiation that can be absorbed by water molecules (mostly) and carbon dioxide molecules in the atmosphere. The energy absorbed by the small number of water molecules is transferred throughout the atmosphere by conduction when hot water molecules bang into oxygen and nitrogen molecules.

The atmosphere is not heated from above; it is heated from below.



Temperature and Thermometers

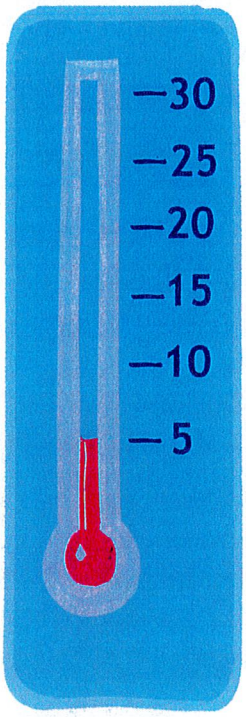
How can you find out just how much heat is in the part of the atmosphere where you are? With a thermometer.

A thermometer measures temperature. **Temperature** is a measure of the average kinetic energy of the molecules in a material. If a thermometer is surrounded by air, it measures the average kinetic energy of the air molecules. If it is surrounded by water, it measures the kinetic energy of the water molecules. If you hold the thermometer bulb between your fingers, the thermometer measures the average kinetic energy of the molecules on the surface of your fingers.

If you stick a thermometer in a cup of cocoa, under your tongue, or in a freezer, it will measure the average kinetic energy of the molecules touching it in those places.

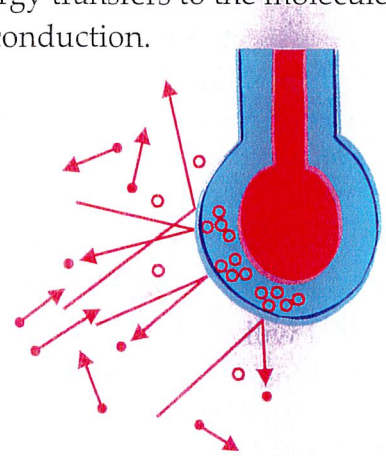
How Does a Thermometer Work?

Think about an alcohol thermometer on the wall in a cold cabin. The kinetic energy in the air molecules is low. The kinetic energy in the glass and alcohol molecules is low. The air molecules and the glass thermometer bulb have the *same* kinetic energy. The top of the column of alcohol is at 5°C. Brrrr, it's cold, so you turn on the heater.

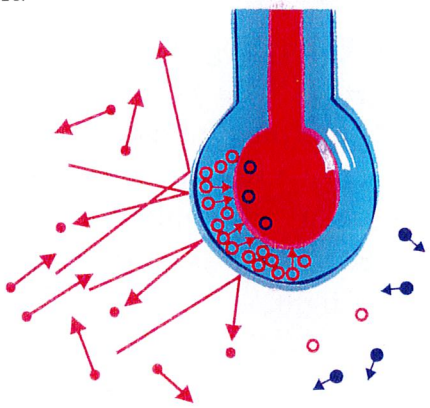


Pretty soon warm air is flowing into the room. Warm air has more kinetic energy than cooler air. The energy added to the room in the form of fast-moving air molecules starts a chain of events.

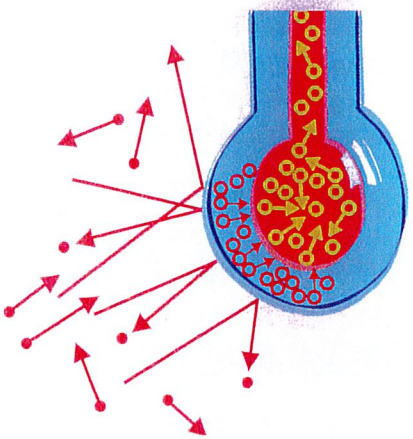
- Molecules in the warm air collide more often with the glass thermometer bulb. Energy transfers to the molecules of glass by conduction.



- Kinetic energy transfers by conduction from molecule to molecule in the glass bulb until all of the glass molecules are warm.



- Energy transfers by conduction from the glass molecules to the alcohol molecules inside the bulb. Kinetic energy transfers throughout the alcohol by conduction—collisions between alcohol molecules.



Full Name: _____ Date: _____ Class Period: **2 3 5 6 7**

Heating the Atmosphere

Assignment: Read pages 22-23 "Heating the Atmosphere" from the Green Resource "Weather" book. Complete the outline as you go through each section. (use www.fossweb.com link to access the e-book.)

1. Heat = Movement

a. Objects in motion have _____

b. *E*nergy in motion is called _____

c. _____ is made up of atoms and particles.

d. List two examples of ***matter:*** _____

e. ***Warm / HOT*** molecules move **(slowly or fast)**

f. ***Cool / cold*** molecules move **(slowly or fast)**

2. Heat Transfer

a. Heat can move or transfer from one place to another.

b. Heat is NOT a _____ but ***flow*** is a pretty good way to _____ its movement.

c. Heat flows from a _____ location to a _____ location; which means from more energy to less energy.

3. Heat Transfer by Radiation

a. The kind of energy that travels through air is _____.

b. _____ energy travels in the form of RAYS.

c. ***Energy*** rays from the sun pass through the Earth's _____. We call this _____. When solar energy hits a molecule, the energy can be _____. Absorbed energy increases _____ ***energy*** *(movement* of molecules) in the ***air, water, or soil.***

d. Increased _____ = Increased _____

e. Materials ***don't*** have to touch for energy to transfer from one material to another.

4. Heat Transfer by Conduction

a. When energy transfers from one place (particle) to another ***by*** _____ (or touch) this is called _____

b. ***Example:*** When heating water in a pot, the **water** gets hot because it comes ***in*** _____ with the HOT _____ of the pot.

c. Kinetic energy transfers the _____ metal molecules to the _____ water molecules by _____. This is ***conduction***.

5. Heat Transfer to the Atmosphere

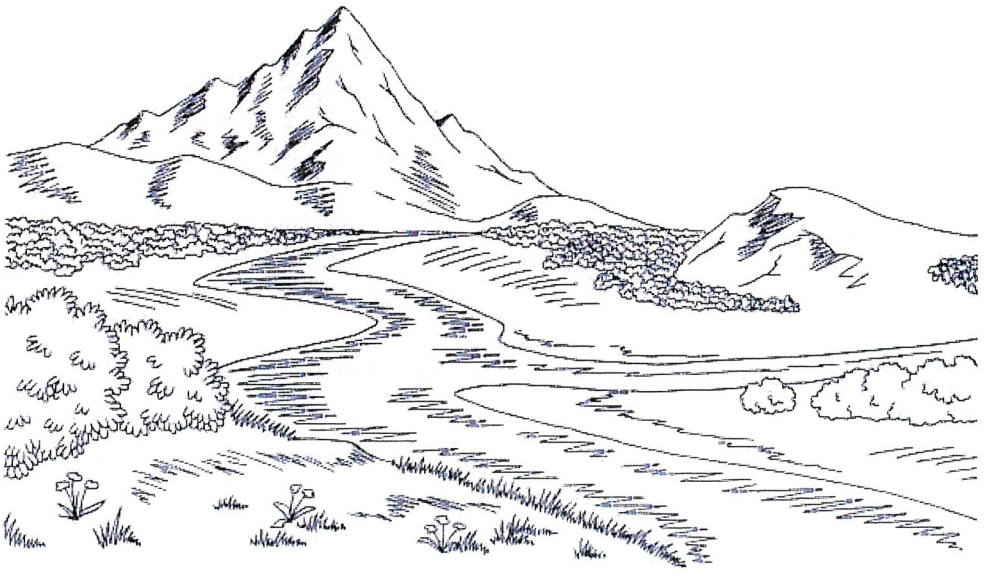
a. The atmosphere is heated by _____ energy from the

b. Air is 99% _____ and _____

c. Only _____ and _____ absorb significant amounts of radiant energy (*infrared rays*) Warm land and seas _____ energy.

d. The atmosphere is not heated from _____ it is heated from _____

e. Add to the picture below to show conduction, radiation, solar energy (page 24)



Investigation 4 & 5 Heat Transfer Concepts

Differential Heating	The different rates at which (earth) materials heat up, based on their properties
Radiate	The transfer of energy from more heat to less heat, the movement of atoms and particles:
Energy	The ability to do work
Radiation	The transfer of heat energy through space from the sun in waves or rays
Conduction	The transfer of heat energy from one particle to another by touch or contact: Atoms/Particles collide
Re-radiate	The transfer of energy from the sun to the earth's surface and BACK into the Atmosphere: Bounce back
Matter	Anything in the universe that has mass and takes up space
Density	the ratio of Mass (g) to volume (ml) How much matter in a given amount of space
Kinetic Energy	Energy in Motion; Movement of atoms and particles
Convection	The transfer of heat energy through fluids due to an object's density: Particles flow through currents (air, liquid, gas)