Science CRCT Review- 4th Grade

1. What are some physical attributes of stars? (number, size, color, pattern)

2. How are stars and planets alike? How are they different? (appearance, position, number)

3. Why does the pattern of stars in a constellation stay the same? Why are planets seen in different locations at different times?

4. What types of technology can we use to observe distant objects in the sky?

5. Explain the day/night cycle of the Earth. Draw what happens.

6. Explain the sequence of the phases of the moon. Draw a picture.

7. How does the revolution of the earth around the sun and the earth's tilt cause the seasons to change?

8. What is the relative size and order from the sun of the planets in the solar system? Draw a picture.

9. How does water change states from solid (ice) to liquid (water) to gas (water vapor/steam) and then change from gas to liquid to solid? Draw a picture.

10. At which temperature does water becomes a solid and at which temperature does water becomes a gas? Draw a picture.

11. How are clouds formed? Draw a picture.

12. What is the water cycle? What are evaporation, condensation, and precipitation? How do they relate to the water cycle? Draw a picture.

13. What are different forms of precipitation and sky conditions? Draw and label. (rain, snow, sleet, hail, clouds, and fog)

14. What are some common weather instruments and how are they used to gather weather data and make forecasts? (thermometer, rain gauge, barometer, wind vane, anemometer)

15. How do we use a weather map to identify the fronts, temperature, and precipitation in an area and to interpret the weather conditions?

16. What is the difference between weather and climate?

17. What materials are transparent, opaque, and translucent? Give examples of each.

18. How does a mirror reflect light? Draw a picture.
19. What is the difference between a convex and concave lens? Draw and label. Give examples of each.

20. What does a prism do? Draw a picture and label.

21. How is sound produced? Give an example.

22. What are some ways to vary pitch? Give examples.

23. Identify simple machines and explain their uses (lever, pulley, wedge, inclined plane, screw, wheel and axle). Give an example of each.

A. Lever-

B. Pulley-

C. Wedge-

D. Inclined Plane-

E. Screw-

F. Wheel and Axle-

24. How does force affect speed and motion? Give examples.

25. How does gravitational force affect the motion of an object? Draw a picture.

26. What are the roles of producers, consumers, and decomposers in a community? Give examples.

27. How does energy flow through a food chain? Draw a picture and label.

28. How do food chains form a food web? Draw a picture and label.

29. Predict how changes in the environment would affect a community (ecosystem) of organisms.

30. Predict effects on a population if some of the plants or animals in the community are scarce or if there are too many.

31. How does camouflage, use of hibernation, and protection help an organism survive? Give examples.

32. Identify factors that may have led to the extinction of some organisms.

4th Grade CRCT Prep

Sample Question:
Ellen and Mario are conducting an experiment about plants. They buy a bag of bean seeds, and then plant the seeds in four different types of soil. The soil types include sand, loam, clay, and potting soil. They give each seed the same amount of light and keep them at the same exact temperature. They also give each seed 1,000 milliliters of water per day. Slowly, over the next couple of weeks the plants begin to sprout. What piece of scientific equipment did Ellen and Mario MOST LIKELY use to measure the water they used in the experiment?

a. balance scale
b. meter stick
c. beaker
d. graduated cylinder

Multiple Choice Test Taking Strategies

Name _____

1. Strategy: Eliminate answers that don't make any sense.
Example:
Which statement is reasonable?
    a. Over the past two weeks, a hamster gained 2 kilograms.
    b. The farmer watered his field with 2 liters of water.
    c. The worm moved 100 millimeters in 5 minutes.
    d. The snail moved 1 kilometer in 5 minutes.

2. Strategy: Circle key words that will help you answer the questions.
Example:
Which of the following tools would you use to observe the craters on the moon?
    a. microscope
    b. hand lens
    c. spaceship
    d. telescope

3. Strategy: Be aware of extreme words in the answers. Choices that contain these words are often incorrect.
Example:
Scientists always make predictions before conducting an experiment. Which is true about predictions?
    a. Predictions about the results of experiments are always correct.
    b. Predictions about the results of experiments are never correct.
    c. Predictions should be changed to match the results of an experiment.
    d. Predictions based on research are often correct.

4. Strategy: Pay special attention to questions written with negative words.
Example:
Which of these is **NOT** a model?
    a. drawing of a family tree
    b. globe
    c. list of materials needed for an experiment
    d. map of the United States of America

5. Strategy: Check for qualifying words. Test these qualifiers to see if they are true. Example:
Use the chart to answer the following question.

Amount of Rainfall Last Week (cm)	
Monday	2.0
Tuesday	0
Wednesday	5.0
Thursday	1.5
Friday	3.0
Saturday	1.0
Sunday	1.5

Which of the following statements is true?
   a. It rained every day last week.
   b. It rained less than 12 centimeters (cm) last week.
   c. It rained more than 15 centimeters (cm) last week.
   d. It rained most days last week.

6. Strategy: Read each answer choice carefully. Is the whole statement true, or just part of it?
Example:
Conclusions made by today's scientists should be
   a. accepted because scientists use computers.
   b. accepted because scientists are smarter than most other people.
   c. questioned because scientists usually make incorrect conclusions.
   d. questioned until they are proven to be correct.

7. Examine the word choices carefully when answering "all of the above" questions.
Example:
You want to learn more about the birds living in your neighborhood. Where should you look to find more information on these birds?
   a. in the dictionary
   b. in the newspaper
   c. in a book titled *Birds of Georgia*
   d. all of the above

8. Strategy: Carefully read all of the answer choices when the question has the terms "Most Likely."
Example:
Which web site is MOST LIKELY to have reliable information about the weather?
   a. One run by a group of college students who are studying weather.
   b. One run by the National Weather Service.
   c. One run by a group of students in Ms. Jones's class.
   d. One run by the local news station.

9. Look at similar answer choices. One is correct, and the other is there to trick you.
Example:
What piece of equipment should you use if you want to find the circumference of a tree?
   a. Meter stick
   b. Measuring tape
   c. Scale
   d. Graduated cylinder

10. Look at opposite answer choices. One is correct, and the other is there to trick you.
Example:
Which is the boiling point of water if you are using the metric system?
  a. 0∘ Celsius
  b. 100∘ Celsius
  c. 32∘ Fahrenheit
  d. 212∘ Fahrenheit

Earth Science: Space Bingo Review

B	I	N	G	O
		Free Space!!!		

Word List:
Stars   phases of the moon
Planets   new moon
Mercury   waxing crescent
Venus   first quarter
Earth   waxing gibbous
Mars   full moon
Jupiter   waning gibbous
Saturn   third quarter
Uranus   waning crescent
Neptune   tilt
Constellations
Revolution
Rotation
Axis
Telescopes
Space probes

Teacher Definitions:

Stars- hot balls of gas seen in the night sky
Planets- celestial bodies orbiting the sun
Mercury- closet planet to the sun; has no water and little atmosphere
Venus- same size as Earth, but very rocky and no water and much hotter than Earth
Earth- only planet to have life full of plants and animals; the third rock from the sun
Mars- called the Red Planet for its red soil; full of huge craters, mountains and plains
Jupiter- the largest planet; an outer layer of gases; the large red spot is a huge storm
Saturn- largest set of rings; rings are made of tiny bits of rock, ice, and dust
Uranus- has an atmosphere of blue-green gases, methane; has frozen water; this planet's axis is so tipped it rotates on its side
Neptune- the last of the classical planets; is a cold giant ball of gases and liquids; it has 13 moons and it also has rings
Constellations- star patterns or pictures in the sky; there are 88 named pictures
Revolution- to orbit or travel around the sun
Rotation- to spin on an axis; to make day and night
Axis-an imaginary line that passes through a planet's north and south poles
Phases of the moon- the different shapes of the moon we see from Earth
Tilt- the slant of the Earth on its axis
New moon- the phase of the moon in which none of it facing Earth is lit
Waxing crescent- the phase of the moon in which a silver of it facing Earth is lit; the light is on the right and the light will be getting bigger
First quarter-the phase of the moon in which half of it facing Earth is lit; the light is on the right
Waxing gibbous- the phase of the moon in which ¾ of it facing Earth is lit;   The light will be getting bigger; this phase is between the first quarter and a full moon
Full moon- the phase of the moon in which the moon is seen as a bright round circle
Waning gibbous-the phase of the moon in which ¾ of it facing Earth is lit; the light is on the left; the light will be getting smaller
Third quarter- the phase of the moon in which half of it facing Earth is lit; the light is on the left
Waning crescent- the phase of the moon in which a silver of it facing Earth is lit; light is on the left and the next phase is a new moon

Earth Science: Weather Bingo Review

B	I	N	G	O
		Free Space!!!		

Word List:

Freezing point	forecast
Boiling point	weather maps
Evaporation	warm fronts
Condensation	cold fronts
Precipitation	stationary front
Melting	weather
Clouds	climate
water vapor	predict
rain	air pressure
snow	
sleet	
hail	
fog	
temperature	
thermometer	
rain gauge	
barometer	
wind vane	
anemometer	

Teacher Definitions:

Freezing point- the temperature at which water freezes; 0 degrees Celsius and 32 degrees Fahrenheit
Boiling point- the temperature at which water boils; 100 degrees Celsius and 212 degrees Fahrenheit
Evaporation- the change of a substance from the liquid to the gaseous state
Condensation- the change of a substance from the gaseous state to the liquid state; the formation of clouds
Precipitation-any form of water that falls from clouds to Earth
Melting- the change of ice from a solid form to a liquid form
Clouds- drops of water or pieces of ice in the sky
Water vapor- water in the gas state
Rain- drops of liquid water that falls from clouds
Snow- ice crystals that form from cold clouds
Sleet- small particles of ice that form when rain falls through a layer of the atmosphere that is above freezing, and then through a freezing layer closer to the ground

Hail- round ice pellets that form in large cumulonimbus clouds
Fog- a cloud that is at or near the ground
Temperature- the measurement of the air; how hot or cold it is
Thermometer- a weather instrument that measures temperature
Barometer-a weather instrument that measures air pressure
Rain gauge- a weather instrument that measures the amount of rain that falls
Wind vane- a weather instrument that tells the direction the wind is blowing
Anemometer- a weather instrument that tells how fast the wind is blowing
Forecast- meteorologists predict the weather by analyzing data gathered through the use of weather instruments
Weather maps- a visual aid of the United States or another country that uses symbols to show the weather conditions over a part of Earth's surface
Warm fronts- a place where warm air mass meets and slowly rides up over a colder air mass
Cold front-a place where a cold air mass bumps up against a warm air mass
Stationary- a place where a front stops moving
Weather- daily measurements of temperature, precipitation, air pressure, wind speed and direction
Climate- the average type of weather that occurs in a place over a long period of time
Air pressure- the pressure a column of air above a certain location exerts on Earth's surface

Physical Science Bingo Review

B	I	N	G	O
		Free Space!!!		

Word List:

concave lens	refraction
onvex lens	scatter
force	screw
fulcrum	simple machine
gravity	speed
inclined plane	sound
light	telescope
lens	translucent
lever	transmit
motion	transparent
reflect	vibrate
opaque	volume
pitch	wedge
prism	weight
pulley	wheel and axle

Teacher Definitions:

Concave lens- a lens that is thicker at the edges than in the middle
Convex lens-a lens that is thicker in the middle than at the edges
Force-a push or a pull
Fulcrum- the center point of a lever
Gravity- a force that pulls things toward each other
Inclined plane- a simple machine with a sloped side
Light- a type of energy that you can see
Lens- a clear material with one or two curved surfaces used to change the direction of light
Lever- a bar that moves on a fulcrum
Motion- movement
Opaque- describes an object you cannot see through
Pitch- how high or low a sound is
Prism- a 3-D , triangular object made of clear glass or plastic that can change the path of light
Pulley- one or more wheels with a rope around it for lifting things
Reflect- to bounce off, as light
Refraction- a change in the direction of light, bending light
Screw- an inclined plane that is wrapped around a center rod

Simple machine- a tool that makes work easier
Speed- the rate at which an object moves
Sound- a type of energy you can hear produced by vibrations
Translucent- something you can see through, but not clearly
Transmit- to let pass through
Transparent- something you can see through clearly
Vibrate- to quickly move back and forth
Volume- how loud a sound is
Wedge- an inclined plane with two sloped sides
Weight- the pull of gravity on an object
Wheel and axle- wheel with a rod attached to the center of it

Pictionary Words:
Life Science

Adaptation	Camouflage	Ecosystem
Flow of Energy	overabundant	Food chain
Food web	Hibernation	Organism
Protection	Population	Community
Producer	Consumer	Decomposers
Migrate	Prey	Predator
Survive	scarce	Extinction

Key Pictionary Questions for Teachers:
1. adaptation
   - What are some examples of an adaptation?
   - What's the difference between a physical and a behavioral adaptation?
   - Do adaptations happen overnight?

2. camouflage
   - What are some examples of camouflage?
   - What animals are able to camouflage?
   - How does camouflage help an animal survive?

3. ecosystem
   - What makes up an ecosystem?
   - What's the difference between an ecosystem and a community?
   - How do animals living in an ecosystem depend on one another?

4. Flow of energy
   - How does the flow of energy move throughout a food chain?
   - Where does the energy come from or start?
   - What living thing starts the flow of energy?

5. overabundant
   - How does an overabundance of animals affect an ecosystem?
   - How can too much heat change an environment?

6. food chain
   - What type of organism is found at the beginning of a food chain?
   - What do the arrows tell you in a food chain?

7. Food web
   - How is a food web similar to a food chain?
   - How is it different?
   - Where does all of the energy in the food web begin?

8. Hibernation
   - How do animals survive while hibernating?
   - What kinds of animals hibernate?
   - How does this help them survive?

9. organism
   - What are some examples of organisms, plants or animals?

10.   protection
   - How do some animals protect themselves from other animals?
   - Are claws and fangs the only way to protect themselves?
   - What are some other ways an animal can protect itself?

11.   population
  * How can a population of animals be changed in a community?

12.   community
  * What is the difference between a community and a population?
  * How are they related?

13.   producer
  * Where do producers get their energy?
  * Name three producers.

14.   consumer
  * What are some first-level consumers?
  * Name some second-level consumers.
  * What kinds of animals are at the top of the food chain?

15.   decomposer
  * What role do decomposers play in a food web?
  * How would the world be different without decomposers?
  * Give two examples of decomposers.

16.   migrate
  * What kinds of animals migrate?
  * How does migration help them survive?

17.   prey
  * Are prey first-level, second-level, or third-level consumers?
  * Give an example of a predator/prey relationship.

18.   predator
  * Are predators first-level, second-level, or third-level consumers?
  * Give an example of a predator/prey relationship.

19.   survive
  * What do animals need to do in order to survive?
  * Choose an animal and name three of its adaptations that help it survive.

20. extinction
  * What are some examples of animals that are extinct?
  * What causes an animal to become extinct?

21. scarce
  * What happens to an ecosystem when there is too little of something?

Fourth Grade Science Practice Test

Name _____

Earth Science _____
Physical Science _____
Life Science _____

Directions: Read each question and circle the BEST answer.

Earth Science

1. Which list of star colors/temperatures are in the correct order from hottest to coolest?
   a. white, yellow, red, orange, blue
   b. yellow, blue, orange, red, white
   c. blue, white, yellow, orange, red
   d. red, orange, blue, yellow, white

2. Why does the sun appear to shine brighter than other stars?
   a. It is bigger than other stars.
   b. It is a yellow star.
   c. It is the closet star to Earth.
   d. The other stars do not shine.

3. What do space probes do?
   a. They carry people to space.
   b. They take pictures of the stars.
   c. They collect gases from the stars.
   d. They collect data of the planets such as their atmosphere, weather, and soil, and they also take pictures of the planets' surface.

4. Why do constellations stay the same in the night sky, but a planet can be seen in different places and at different times?
   a. Stars are too far away to see their movement from Earth.
   b. Planets orbit around the sun.
   c. The motion of stars occurs over a long period of time such as 100 years.
   d. All of the above.

5. What causes water to change from one state to another?
   a. It gains or loses heat energy.
   b. Water vapor will turn to ice.
   c. It loses a hydrogen molecule.
   d. Nothing causes it to change.

6. What causes water vapor to become a cloud?
   a. air temperature cooling
   b. air temperature warming
   c. freezing rain
   d. melting snow

7. Meteorologists measure wind speed by using a
   a. thermometer
   b. barometer
   c. wind vane
   d. anemometer

8. What is a warm front?
   a. a hailstorm
   b. a warm air mass
   c. a snowstorm
   d. a cold air mass

Physical Science

1. Which object below is transparent?
   a. rock
   b. eyeglasses
   c. tree
   d. wax paper

2. Light will reflect off of which object?
   a. sandpaper
   b. a mirror
   c. a textbook
   d. tissue paper

3. Jose noticed that his handout looked different when he held it behind a glass of water. The letters had a different size. What type of lens is the glass of water MOST like?
   a. convex lens
   b. concave lens
   c. a prism
   d. a camera

4. Mauricio heard a horn honk while he was walking to school. Later that day, he heard students whispering in the library. Which of the choices below describes how the two sounds are alike?
   a. They have the same pitch.
   b. They are the same volume.
   c. They make vibrations in the air.
   d. They travel in a straight line.

5. Helen uses a knife to cut an apple in half. What type of simple machine is the knife blade when it is used to cut the apple?
   a. lever
   b. pulley
   c. screw
   d. wedge

6. Maria pushes four toy balls to see which will move fastest. Two balls are heavy, and two cars are light. She uses both strong and weak forces to push the balls. Which ball MOST LIKELY has the greatest speed?
    a. the heavy ball with a strong force
    b. the light ball with a strong force
    c. the heavy ball with a weak force
    d. the light ball with a weak force

Life Science

1. In a certain ecosystem, grass is scarce because of a drought. Mice feed on grass. Snakes eat the mice in the ecosystem. Which of these events MOST LIKELY will happen to the ecosystem?
    a. The population of mice will increase causing a decrease in the population of snakes.
    b. The population of mice will increase causing an increase in the population of snakes.
    c. The population of mice will decrease causing a decrease in the population of snakes.
    d. The population of mice will decrease causing an increase in the population of snakes.

2. Which organisms would be LEAST LIKELY to survive in a forest with ground predators?
    a. birds that are unable to fly
    b. mammals that have thick fur
    c. insects that live only underground
    d. lizards that are able to change colors

3. A salamander is able to change its color to match its surroundings. How might this ability to blend into its environment help a salamander to survive?
    a. It keeps the salamander's body temperature cooler.
    b. It makes the salamander less likely to be seen by its predators.
    c. It helps the salamander to scare other animals.
    d. It allows the salamander to store more body fat.

4. Garlic mustard is a plant that is not naturally found in Georgia. When it is brought into an area, it causes a decrease in the population of wildflowers normally found in the area, such as spring beauty and wild ginger. Which of these BEST describes another result of garlic mustard being brought into an area?
    a. The population of trees in the area would decrease.
    b. The population of butterflies in the area would increase.
    c. The population of animals that eat wild ginger would decrease.
    d. The population of animas that eat spring beauty would increase.

5. Energy moves throughout a food chain, starting with:
    a. producers
    b. consumers
    c. the sun
    d. decomposers

6. An eagle needs to eat many mice and snakes because
    a. it is starving.
    b. each animal only provides some energy.
    c. it is part of a food chain.
    d. it doesn't need to eat animals.

Ecosystems

Includes both living and nonliving things in an area
- a. community
- b. ecosystem
- c. populations
- d. producers

What is the living part of an ecosystem?
- a. community
- b. food chain
- c. consumer
- d. habitat

Population contains how many groups of organisms?
- a. 3
- b. 2
- c. 1
- d. 5

A _____ describes one organism's home.
a. community
b. ecosystems
c. habitat
d. consumer

Heredity is a trait that is
- a. learned
- b. mimicry
- c. inherited
- d. adapted

A worm is an example of a
a. producer
b. decomposer
c. consumer
d. omnivore

_____captures light energy from the sun, and transforms it into food.
- a. food web
- b. community
- c. decomposer
- d. producer

A grasshopper is green, what is this an example of?
a. camouflage
b. mimicry
c. adaptation
d. smog

A harmless butterfly had the same color pattern as a poisonous butterfly. What is this an example of?
a. camouflage
b. mimicry
c. adaptation
d. smog

Which of the following is NOT an example of an inherited trait?
    a. hair color
    b. dimples
    c. birth mark
    d. eye color

What is the correct order of the flow of energy in a food chain?
    a. sun—insect—bird—plant
    b. insect—plant—sun—bird
    c. sun—bird—plant—insect
    d. sun—plant—insect –bird

All carnivores are decomposers.
    a. true
    b. false

There is a lack of mice in a field, what could be a possible cause?
    a. drought
    b. over-population of snakes
    c. flood
    d. over-population of frogs

The Arctic Hare changes its color to blend in with its environment. What is this an example of?
    a. mimicry
    b. camouflage
    c. extinction
    d. migration

A turtle's shell helps it to survive because
a. it helps it to move faster in water.
b. it's patterns fool its predators.
c. it protects the soft part of the turtle's body.

Hibernation, migration, mimicry and camouflage are all types of
    a. adaptation
    b. interdependence
    c. extinction
    d. inherited behavior

Which plant would be most unlikely to survive in a tropical rain forest?
    a. fern
    b. hibiscus
    c. cactus
    d. lilies

A lion's growl is an example of
a. inherited behavior
b. learned behavior
c. mimicry
d. experienced behavior

Which is not an example of how an ecosystem can change?
    a. overpopulation
    b. heredity
    c. acid rain
    d. drought

A grasshopper eats a bean plant, and then a mouse eats the grasshopper. Later a snake eats the mouse. In this scenario, what roles do the snake and mouse play?
a. producer
b. consumer
c. decomposer
d. herbivore

What is the role of the producer?
What is the role of a consumer?
What is the role of a decomposer?
What is an organism?
What does a food web show?
The steps in which organisms get their food is called what?
If there is a drought in a pond ecosystem, how does it affect the snakes?
If there are too many deer in an area how does that affect an ecosystem?
What is camouflage?
Give an example of how a lizard uses camouflage?
How would a forest fire affect an ecosystem?
How would in oil spill affect an ecosystem?
If there are too few owls in an area how does that affect the ecosystem?
What is a carnivore? Give an example.
What is an omnivore? Give an example.
What is an herbivore? Give an example.
How does pollution affect humans, animals, and plants?
What is a learned behavior? Give an example.
What is an inherited behavior? Give an example.

FORCE AND MOTION

A simple machine composed of a fulcrum and an arm is a
a. wedge
b. wheel and axle
c. lever
d. screw

What will happen to an object that is pushed if no other force is applied to it?
   a. it will stop
   b. it will keep moving
   c. it will slow down
   d. it will speed up

Which simple machine allows us to get a fag up on top of the flag pole?
   a. lever
   b. wedge
   c. pulley
   d. wheel and axle

When you throw a ball in the air, which force causes it to come back down to Earth?
   a. inertia
   b. friction
   c. magnetism
   d. gravity

Which of these is a compound machine?
   a. scissors
   b. pulley
   c. wedge
   d. wheel and axle

Which of these is the best example of a wedge?
   a. zipper*
   b. bicycle
   c. staircase
   d. spiral staircase

For every action there is an equal and opposite_____
   a. acceleration
   b. force
   c. relationship
   d. reaction

Work is_____ acting on an object to move it across a distance.
   a. vibration
   b. friction
   c. simple machine
   d. force

A lever is an arm that pivots, or turns, against a (n) _____, or point.
a. axle
b. fulcrum
c. level
d. force

LIGHT

Ted woke up one morning to a red bird singing outside of his window. He knew it was red because the glass in the window was
   a. convex
   b. translucent
   c. concave
   d. transparent

A shadow is cast because of a (n) _____ object in the path of the light.
a. translucent
b. colored
c. transparent
d. opaque

Shelly shined a flashlight through a thick lens. She observed that the lens was bringing the rays of the light together to a point. From this, we assume that she was using a (n) _____.
   a. concave lens*
   b. prism
   c. transparent
   d. convex lens

Which color would be the worst to wear when mowing the lawn on a hot summer day?
   a. yellow
   b. white
   c. pink
   d. black

What is the name for an object that separates white light into its colors?
   a. spectrum
   b. prism
   c. mirror
   d. lens

ROY G BIV is an acronym for
   a. refraction
   b. light source
   c. brightness
   d. visible spectrum

Which lens magnifies objects to look bigger?
   a. concave
   b. convex*
   c. prism
   d. reflect

How does light travel?
   a. around an object
   b. through an opaque object
   c. in rays in all directions *

d. none of the above

Which color absorbs the most heat?
   a. black
   b. yellow
   c. white
   d. green

What is reflection?
   a. bending of light
   b. range of light waves
   c. distance of one wavelength to another
   d. when light strikes an object and bounces off *

Which item is transparent?
   a. glass
   b. wooden block
   c. wax paper
   d. aluminum foil

____ objects block light.
   a. transparent *
   b. translucent
   c. opaque
   d. spectrum

Name two types of lenses. (concave and convex)
Name the colors of the visible spectrum in order. (ROY G BIV)

SOUND

What causes sound?
   a. pitch
   b. wavelength
   c. vibrations
   d. frequency

The highness and lowness of sound is called
   a. amplitude
   b. frequency
   c. vibrations
   d. pitch

How does sound travel?
   a. high
   b. loud
   c. in a wave
   d. in a tunnel

What is the energy in a sound wave called?
   a. pitch
   b. frequency
   c. amplitude
   d. wavelength

Sound travels fastest through
   a. air
   b. water
   c. vapor
   d. solids

SOLAR SYSTEM

To move in a circular path is to
   a. axis
   b. revolve*
   c. rotate
   d. jump

Name the planets in order from the sun.

Chunks of rock that orbit the sun are called
   a. meteorites
   b. meteors
   c. comets
   d. asteroids

What causes seasonal changes?
   a. Earth moves closer to the sun
   b. Earth moves farther from the sun
   c. because of the Earth's tilt during it's revolution*
   d. the holidays

Patterns of pictures outlined by stars are called
   a. asteroids
   b. meteors
   c. constellations*
   d. orbits

How long does it take Earth to make one complete rotation?
   a. 365 days
   b. 24 hours*
   c. 7 days
   d. 1 year

What causes moonlight?
   a. the man in the moon
   b. the stars
   c. the heat from inside the moon

d. the reflecting sun*

Why does the sun change positions in the sky during the day?
   a. The sun moves from east to west.
   b. The earth gets closer to the sun throughout the day.
   c. The earth is rotating.*
   d. The earth is revolving.

Put the following in order from smallest to largest: star, moon, earth
   a. star, moon, earth
   b. earth, moon, star
   c. moon, star, earth
   d. moon, earth, star*

Which planet is not an inner planet?
   a. Mercury
   b. Saturn
   c. Venus
   d. Earth

What causes the color of the stars?
   a. age
   b. distance
   c. temperature
   d. size

When it is summer in North America, what season would it be in Australia?
   a. fall
   b. winter
   c. spring
   d. summer

How long does it take the moon to complete one cycle?
   a. 365 days
   b. 28 days
   c. 28 hours
   d. 24 hours

Which is not an outer planet?
   a. Jupiter
   b. Mercury
   c. Saturn
   d. Neptune

If the moon were the size of a tennis ball, the Earth would be the size of a
   a. basketball
   b. baseball
   c. golf ball
   d. softball

At what temperature does water freeze?
A: 32 degrees F/ 0degrees C

At what temperature does water change from a liquid to a gas?
A: 100 degrees C/ 212 degrees F

What are the characteristics of fog?
A: Stratus clouds low to the ground, lots of moisture

What are the different types of clouds?
A: stratus, cumulus, cirrus, cumulonimbus

What does a cold, warm, and stationary front look like on a weather map?

How is hail formed? How is sleet formed?
A: Hail is frozen from cloud to ground; sleet is liquid and freezes closer to ground.

What is the difference between weather and climate?
A: Weather is a daily pattern and climate is an average of an area's weather.

What are the states of water?
A: Solid, Liquid, Gas

How are clouds formed?
A: Water condenses around dust particles and groups together.

What does a _____ measure?
A: anemometer- wind speed
Thermometer- temperature
Barometer-air pressure
Wind Vane-wind direction
Rain Gauge- Amount of rain fall

Explain the steps of the water cycle.

If a warm front moves in, what weather would be expected?

If a cold front moves in what weather is expected?