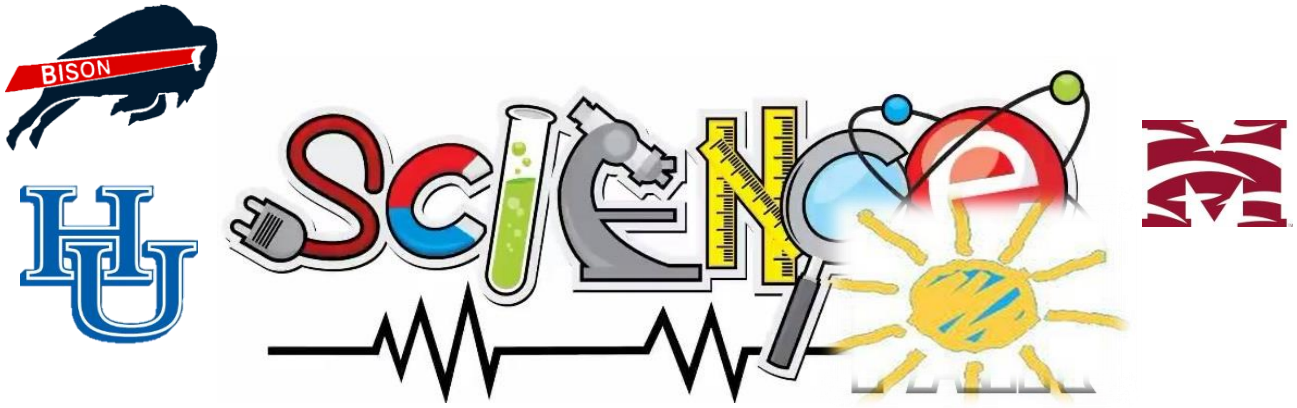
Name _____

# 4th Grade Science Remote Learning Packet

## Week 31




Dear Educator,

My signature is proof that I have reviewed my scholar's work and supported him to the best of my ability to complete all assignments.

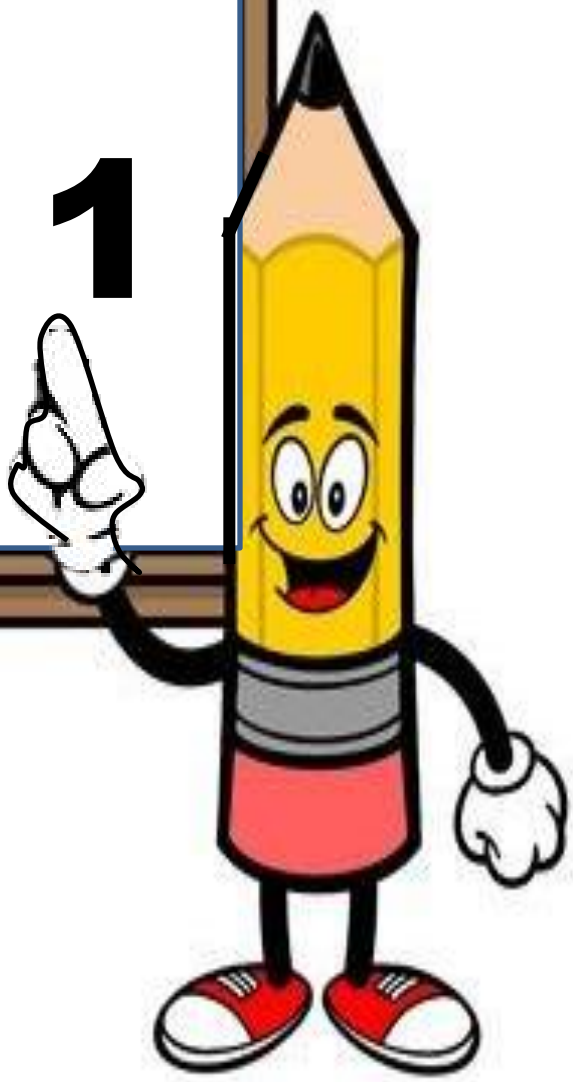
_____ _____

(Parent Signature) (Date)

Parents please note that all academic packets are also available on our website at www.brighterchoice.org under the heading "Remote Learning." All academic packet assignments are mandatory and must be completed by all scholars.

Brighter Choice
Charter School for Boys

# Day # 1



**Name: _____Week 31 Day 1 Date: _____**

**BCCS-B** **Howard** **Morehouse** **Hampton**

**Matter: Solids, Liquids, and Gases -Measuring Properties**

**The question:** *Take 30 seconds to think of your answer to the following question. Then take a minute to write your answer down. Once finished, put your pencil down and wait silently for the next set of directions.*

What are some examples of a solid, liquid, and gas? _____
_____
_____

How do you measure different properties? _____
_____
_____

**Properties of Matter for Kids:** *Jot down any notes you find will be helpful to you in remembering the properties of matter.* _____
_____
_____

**Coach Book—Solids, Liquids, and Gases pages 138-141:** *As we are reading, jot down notes and definitions from the book to help you study later for your exam.*

- All _____ is made up of _____ particles.
- **State of Matter:** is the _____ that matter takes, such as solid, _____, and gas.
- The _____ of solids, liquids, and gases are _____ differently.

**Solid State**

- A **solid** is matter that has a _____ shape and a definite _____.
- Volume is the amount of _____ an object takes up.
- A solid
  - keeps its _____ unless something breaks or bends it
  - takes up a set amount of _____
  - does not _____ out
  - particles are packed _____ together
  - have _____
  - vibrate, or move back and forth _____, but do not move away from their position

**Draw a particle model of a solid**

**Liquid State**

- A **liquid** is matter that has a definite _____ but not a _____ shape.
- Liquid take the shape of its _____.
- The particles of a liquid
  - are not fixed in place like a _____
  - can _____ past each other

**Draw a particle model of a liquid**

**Gas State**

- A **gas** is matter that does not have a _____ shape or a definite _____.
- Gas _____ out in all directions.
- Examples of gas: helium inside a _____ and the _____ you breath
- The particles of gas
  - are very far _____
  - move around _____
  - _____ off each other

**Draw a particle model of a gas**

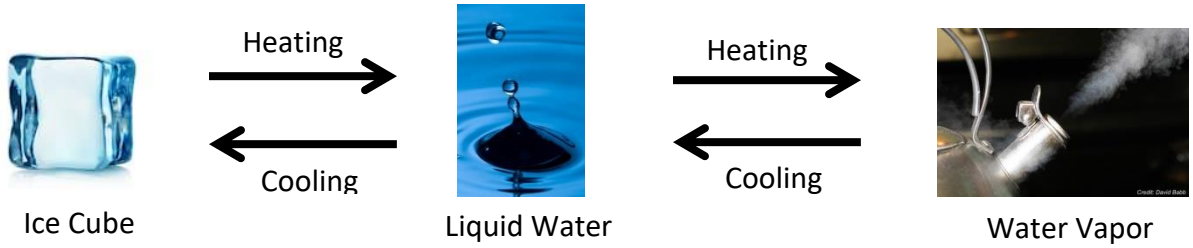
**State of Matter**

| Solid | Liquid | Gas |
|---|---|---|
| Fixed _____ | Fixed _____ | _____ can change |
| _____ shape | _____ can change | Shape can _____ |
| Examples: _____, ball, chair, spoon | Examples: water, _____, lemonade, tea | Examples, air, carbon dioxide, _____ in a balloon |

**Changes in State**

- You can _____ the size, shape, or form of _____.
- A **physical change** is a change in matter in which the kind of matter _____ the same; no new materials _____.
- You can observe many examples of matter changing from one form to _____.
  - ice cube (_____) melts→_____
  - pan of water (_____) into freezer→_____
  - puddle of water (_____) dries up→_____
- A change in matter from one _____ to another, such as liquid to solid is a **change of state.**
  - Solid changes state to a _____, it melts.
  - Heat energy the particles of the ice to speed up.

- Particles move _____
- Ice (solid water) turns into _____ water.
- The liquid water becomes hotter, the particles move _____
- Bubble of _____ form in the liquid and rise to the surface
- At the surface, the _____ disappears into the air. This is called _____.
- Liquid water can change without boiling like in a water puddle when it changes from liquid to gas through _____.
- Water vapor changes back into liquid water through the process called _____.
- As the particles in a liquid begin to cool they slow down, losing heat, and begin to change state from a liquid to a _____.




**Coach Book—Measuring Properties pages 143-146:** *As we are reading, jot down notes and definitions from the book to help you study later for your exam.*

**Measuring Length and Width**

- You can use a _____ to measure how long and _____ something is.
- A meterstick is easy to use.
  - Make sure the end of the stick, or the zero _____, is _____ at one edge of an object.
  - Lineup the meterstick with the other end.
  - Read the _____ that lines up with the other end.

**Measuring Area**

- An object's **area** is the _____ of space an object or material takes up.
- You can use a _____ to find area, but you must also do some _____.
- First, measure the _____ and_____ of the tabletop.
- To find the area, _____ its length times its width (length X width = Area$^2$)

- Area is always given in square _____, such as square centimeters.
- Examples
    - 100 cm X 50 cm = 5000 $cm^2$
    - 80 cm X 40 cm = 3200 $cm^2$

**Measuring Volume**

- **Volume** is the amount of _____ an object or material take up.
- You can make measurements with a _____ or meterstick to find the volume of a solid.
- You find volume by _____ length X width X height = $Volume^3$
- Volume is often measured in _____ unites, such as cubic centimeters.
- Example
    - 10 cm X 4 cm X 2 cm = 80 $cm^3$
- You measure the volume of liquid using a measuring cup or a _____ cylinder.
- Pour the liquid into the cylinder, and then find the line that matches the level of the liquid.
- Eyes should be at the same _____ as the marks on the cylinder.

**Measuring Temperature**

- A thermometer is used to measure _____, or how warm something is.
- A thermometer can be used to measure the temperature of the air or another _____.

**Measuring Mass**

- **Mass** is the amount of _____ that make up an object.
- A pan _____ is used to measure mass.
- To use a balance
    - put an _____ on the left pan
    - add mass weights to the _____ pan until the pointer shows that the balance is _____
    - _____ up the masses of all the mass weights to find the mass of the object

**Measuring Weight**

- **Weight** is a measure of the pull of _____ on an object.
- A _____ is a tool for measuring weight.


**Scholars, refer to the Bill Nye handout attached to the packet.**


**Scholars, refer to the Measuring matter handout.**


**Scholars, refer to the assessments that are provided.**