#### LearnEdNotebooks.com

#### MIDDLE SCHOOL SCIENCE VOCABULARY REVIEW

# I HAVE,

FREE CLASSROOM PRINTABLES

READY TO USE

# MHO HAS?

- Enhance student participation
- Promote active student review
- Keep instruction interesting
- Easily adjust to different topics
- Engage every level of learner
- Incorporate formative assessment

I HAVE:	Liquid	WHO HAS:	A measure of the total amount of matter contained within an object
I HAVE:	Mass	WHO HAS:	A characteristic of a substance that can be observed (color, taste, texture, etc.)
I HAVE:	Physical Property	WHO HAS:	Facts or statistics gathered from experimentation
I HAVE:	Data	WHO HAS:	The simplest or smallest unit of an element; atoms make up all matter
I HAVE:	Atom	WHO HAS:	A measure of the amount of gravity acting on an object's mass
I HAVE:	Weight	WHO HAS:	The most tightly packed state of matter; molecules may only vibrate against one another
I HAVE:	Solid	WHO HAS:	Energy of moving particles (thermal energy)
I HAVE:	Heat	WHO HAS:	A classification (grouping) of matter based on the interactions of its molecules
I HAVE:	State of Matter	WHO HAS:	The ability to do work, may exist as heat, solar energy or motion
I HAVE:	Energy	WHO HAS:	A particle made of atoms joined together



Engaging Instruction. Easy Implementation. Proven Results.

### I Have, Who Has - Instructions

Physical Science: Pages 3-8 Earth Science: Pages 9-14 Life Science: Pages 15-22

#### **Group Participation:**

- 1. Cut along the dotted line to separate each "I Have, Who Has" prompt.
- 2. Group students into pairs or groups of three.
- 3. Shuffle the prompts and pass out at least one prompt to each group of students.
  - \*Some groups may receive more than one prompt.
- 4. Call on a group of students to begin the activity by standing up and reading their "Who Has" prompt.
- 5. The group that has the corresponding "I Have" term will stand up and read their entire slip, ending with the "Who Has" prompt.
- 6. The activity will continue until the beginning group matches their "I Have" term to the final "Who Has" prompt.

#### **Individual Participation:**

- 1. Follow the same procedure as above using "I Have, Who Has" lists from multiple units.
- 2. Pass out at least one or two prompts to every student.
  - \*A few terms may be duplicated across unit vocabulary lists. Be sure that any student who calls out an "I Have" term reads the "Who Has" prompt from the unit list you are currently using in the activity.
  - \*Once a unit list is completed you will need to start the next list by calling on a student to begin by reading a "Who Has" prompt from another list.

#### **ANSWER KEY:**

Make a separate copy of each list to preserve as an answer key. Do NOT cut this list apart.

The corresponding term for each definition is located on the following line.

The corresponding term for the last definition is located on the first line.

See example.

I HAVE:	Water Cycle	WHO HAS:	Device that measures air pressure
I HAVE:	Barometer	WHO HAS:	Occurs when water vapor cools and turns into a liquid
I HAVE:	Condensation	WHO HAS:	Layered low level clouds; indicate chances of rain
I HAVE:	Stratus Clouds	WHO HAS:	Edge of a warm air mass; brings heavy rain
I HAVE:	Warm Front	WHO HAS:	Weight of the Earth's atmosphere pressing down upon its surface
I HAVE:	Air Pressure	WHO HAS:	Occurs when liquid water turns into a gas (water vapor)
I HAVE:	Evaporation	WHO HAS:	Device that measures wind speed
I HAVE:	Anemometer	WHO HAS:	Evaporation of water out of the leaves of plants
I HAVE:	Transpiration	WHO HAS:	Thin, feathery high level clouds; indicate clear weather
I HAVE:	Cirrus Clouds	WHO HAS:	Warm water current that warms coastal weather
I HAVE:	Gulf Stream	WHO HAS:	Water that falls as rain, snow, sleet or hail
I HAVE:	Precipitation	WHO HAS:	Air current that affects weather in North America
I HAVE:	Jet Stream	WHO HAS:	Puffy low level clouds
I HAVE:	Cumulus Clouds	WHO HAS:	The cycle that moves water across the planet and throughout the atmosphere

Properties of Matter

I HAVE:	Atom	WHO HAS:	State of matter composed of tightly packed molecules, resulting in a firm substance
I HAVE:	Solid	WHO HAS:	A group of atoms bonded together, often representing the smallest unit of a compound
I HAVE:	Molecule	WHO HAS:	The quantity of matter within an object
I HAVE:	Mass	WHO HAS:	A homogeneous mixture of two or more substances (a substance is dissolved into a solvent; ex: salt water)
I HAVE:	Solution	WHO HAS:	A solid separated from a solution
I HAVE:	Precipitate	WHO HAS:	An expression of a compound using symbols and numbers representing the ratio in which they appear
I HAVE:	Formula	WHO HAS:	Amount of mass per unit of volume (D=m/v)
I HAVE:	Density	WHO HAS:	Basic building block of physical matter; cannot be broken down to a simpler structure
I HAVE:	Element	WHO HAS:	State of matter composed of freely moving molecules capable of indefinite expansion
I HAVE:	Gas	WHO HAS:	A change in the physical properties of a substance; usually reversible (freezing a liquid, melting a solid)
I HAVE:	Physical Change	WHO HAS:	A mixture of a fluid and other particles, which are undissolved (ex: Italian salad dressing)
I HAVE:	Suspension	WHO HAS:	A chemical substance composed of two or more atoms of different elements
I HAVE:	Compound	WHO HAS:	A symbolic representation of one set of compounds reacting together to form a new set of compounds
I HAVE:	Equation	WHO HAS:	The smallest unit of an element
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Properties of Waves

I HAVE:	Wave	WHO HAS:	Material through which a mechanical wave moves
I HAVE:	Medium	WHO HAS:	Number of waves that pass a point in one second; measured in hertz
I HAVE:	Frequency	WHO HAS:	Wave that transmits energy through a medium
I HAVE:	Mechanical Wave	WHO HAS:	Mechanical wave that causes perpendicular motion of the medium through which it travels (in relation to the wave)
I HAVE:	Transverse Wave	WHO HAS:	Mechanical wave that causes parallel motion of the medium through which it travels (in relation to the wave)
I HAVE:	Longitudinal Wave	WHO HAS:	Wave that does not require a medium through which to travel (visible light, uv, x-rays, etc.)
I HAVE:	Electromagnetic Wave	WHO HAS:	Transmits all light; it is possible to see through these materials
I HAVE:	Transparent	WHO HAS:	Scatters light; it is possible to partially see through these materials
I HAVE:	Translucent	WHO HAS:	Absorbs or reflects all light; it is not possible to see through these materials
I HAVE:	Opaque	WHO HAS:	Measure of size or magnitude of a wave
I HAVE:	Amplitude	WHO HAS:	The bending of a wave around a barrier
I HAVE:	Diffraction	WHO HAS:	Occurs when a wave bounces off a barrier, often flipping upside down
I HAVE:	Reflection	WHO HAS:	Occurs when a wave bends as it enters a new medium
I HAVE:	Refraction	WHO HAS:	A disturbance in matter that transfers energy through matter or space

Forces of Motion

I HAVE:	Action Force	WHO HAS:	The direction and distance from a starting point to an ending point
I HAVE:	Displacement	WHO HAS:	The force that opposes motion through a fluid (liquid or gas)
I HAVE:	Fluid Friction	WHO HAS:	Line graph used to show the speed of a moving object
I HAVE:	Distance-Time Graph	WHO HAS:	A push or pull that changes the speed or direction of an object
I HAVE:	Force	WHO HAS:	The tendency of an object to resist a change in its motion
I HAVE:	Inertia	WHO HAS:	Occurs when the net force between two objects is zero and there is no change in their motion
I HAVE:	Balanced Forces	WHO HAS:	Friction force that acts to prevent objects that are touching from sliding past one another
I HAVE:	Static Friction	WHO HAS:	A group of reference objects whose placement can be compared to each other to determine motion
I HAVE:	Frame of Reference	WHO HAS:	A measure of how long it takes an object to get from one place to another
I HAVE:	Speed	WHO HAS:	Measure of the inertia of an object; depends on the amount of matter the object contains
I HAVE:	Mass	WHO HAS:	The overall force acting on an object after all the forces have been added or subtracted
I HAVE:	Net Force	WHO HAS:	The force an object exerts back on another object as a result of its action force
I HAVE:	Reaction Force	WHO HAS:	Force that acts between any two masses
I HAVE:	Gravity	WHO HAS:	The force one object exerts on another

I HAVE:	Equilibrium	WHO HAS:	Occurs when the energy from a wave is taken up by another object
I HAVE:	Absorption	WHO HAS:	The transfer of energy through a liquid or gas
I HAVE:	Convection	WHO HAS:	The transmission of energy in electromagnetic waves
I HAVE:	Radiation	WHO HAS:	Electromagnetic waves capable of warming objects
I HAVE:	Light	WHO HAS:	Moves electrical energy from place to place through direct contact
I HAVE:	Electrical Conductor	WHO HAS:	Occurs when the energy from a wave is moved through an object without being absorbed or scattered
I HAVE:	Transmission	WHO HAS:	Occurs when a wave bends around an object
I HAVE:	Refraction	WHO HAS:	The transfer of energy through a solid substance or by direct contact
I HAVE:	Conduction	WHO HAS:	The measure of the length of a wave; used to classify
IIIAVE.			different types of electromagnetic waves
I HAVE:		WHO HAS:	Light with a shorter wavelength than visible light (causes sunburns)
i     !		WHO HAS:  WHO HAS:	Light with a shorter wavelength than visible light
I HAVE:	Wavelength		Light with a shorter wavelength than visible light (causes sunburns)  Light with a longer wavelength than visible light (heat
I HAVE:	Wavelength Ultraviolet Light	 WHO HAS:	Light with a shorter wavelength than visible light (causes sunburns)  Light with a longer wavelength than visible light (heat imaging)

I HAVE:	Electromagnetic Transfer	WHO HAS:	Processed by an object because of its motion or energy of position (not in motion)
I HAVE:	Mechanical Energy	WHO HAS:	Refers to the number of times a machine multiplies a force
I HAVE:	Mechanical Advantage	WHO HAS:	Mechanical energy of motion
I HAVE:	Kinetic Energy	WHO HAS:	Energy transfer from warm objects to cooler objects
I HAVE:	Thermal Transfer	WHO HAS:	The ability to do work
I HAVE:	Energy	WHO HAS:	Energy transfer of electric charges moving through conductors to complete a circuit
I HAVE:	Electrical Transfer	WHO HAS:	Green energy that does not pollute the environment; harnessed from water
I HAVE:	Hydropower	WHO HAS:	One form of energy changes to another; allows energy to be used in different ways
I HAVE:	Energy Transformation	WHO HAS:	Nonrenewable energy sources formed from remains of living organisms (coal, natural gas, petroleum)
I HAVE:	Fossil Fuels	WHO HAS:	Mechanical energy of position; capable of starting motion
I HAVE:	Potential Energy	WHO HAS:	Makes work easier by changing the size or direction of acting forces
I HAVE:	Machine	WHO HAS:	Energy transfer from moving objects pushing or pulling on another
I HAVE:	Mechanical Transfer	WHO HAS:	Two or more simple machines working together
I HAVE:	Compound Machine	WHO HAS:	Energy transfer in the form of waves (ex: microwaves, radio waves; energy from the sun)

Energy & Resources

I HAVE:	Energy	WHO HAS:	Fossil fuel made of mostly carbonized plant matter
I HAVE:	Coal	WHO HAS:	Energy of moving objects, such as a rolling ball, wind or currents
I HAVE:	Mechanical Energy	WHO HAS:	Energy harnessed from the sun (radiant light and heat)
I HAVE:	Solar Energy	WHO HAS:	The process by which glucose is converted to cellular energy, often with the use of oxygen
I HAVE:	Respiration	WHO HAS:	Energy that travels in waves (ex: microwaves, radio waves, energy from the sun)
I HAVE:	Electromagnetic Energy	WHO HAS:	One form of energy changes to another; allows energy to be used in different ways
I HAVE:	Energy Transformation	WHO HAS:	Energy derived from sources that are continually replenished (wind, solar, biomass, geothermal, etc.)
I HAVE:	Renewable Energy	WHO HAS:	Nonrenewable energy source formed from remains of living organisms (coal, natural gas, petroleum)
I HAVE:	Fossil Fuel	WHO HAS:	Energy of moving particles or atoms that make up all matter
I HAVE:	Thermal Energy	WHO HAS:	Fossil fuel consisting of methane that occurs naturally underground
I HAVE:	Natural Gas	WHO HAS:	Energy stored in atomic bonds that form molecules; released when chemical reactions occur
I HAVE:	Chemical Energy	WHO HAS:	The act of preserving or maintaining the planet and its resources
I HAVE:	Conservation	WHO HAS:	Energy of electric charges moving through conductors; powers devices used in daily life
I HAVE:	Electrical Energy	WHO HAS:	The ability to do work; fuels life

I HAVE:	Solar Eclipse	WHO HAS:	Any natural object outside of Earth's atmosphere
I HAVE:	Celestial Body	WHO HAS:	A celestial body that does not produce its own light; moves in an elliptical orbit around a star
I HAVE:	Planet	WHO HAS:	The study of celestial objects, space and the universe
I HAVE:	Astronomy	WHO HAS:	A burning body of matter that has entered Earth's atmosphere; "shooting star"
I HAVE:	Meteor	WHO HAS:	The rising and falling of the water level of the oceans due to the pull of gravity
I HAVE:	Tide	WHO HAS:	The galaxy that contains Earth's solar system
I HAVE:	Milky Way	WHO HAS:	The force that attracts two objects together
I HAVE:	Gravity	WHO HAS:	The angle of an object's rotational axis
I HAVE:	Tilted Axis	WHO HAS:	The path of an object that revolves around another object
I HAVE:	Orbit	WHO HAS:	A system of millions or billions of stars with gas, dust and other celestial objects held together by gravity
I HAVE:	Galaxy	WHO HAS:	Occurs when the Moon enters the Earth's shadow
I HAVE:	Lunar Eclipse	WHO HAS:	A small, rocky celestial body that orbits the Sun
I HAVE:	Asteroid	WHO HAS:	Celestial body of ice, dust and a tail of gases and dust
I HAVE:	Comet	WHO HAS:	Occurs when the Moon comes between Earth and the Sun

Earth Composition

I HAVE:	Tectonic Plate	WHO HAS:	Portion of Earth between the crust and the core (1800 miles thick)
I HAVE:	Mantle	WHO HAS:	Formed through the deposition of sediment moved by water, ice or wind, which then hardens (ex: limestone)
I HAVE:	Sedimentary Rock	WHO HAS:	Hot molten rock on Earth's surface (erupted from a volcano or fissure)
I HAVE:	Lava	WHO HAS:	Formed from another rock type through exposure to extreme heat or pressure (ex: marble from limestone)
I HAVE:	Metamorphic Rock	WHO HAS:	Consists of the crust and upper mantle; composed of tectonic plates
I HAVE:	Lithosphere	WHO HAS:	Hot molten rock below Earth's surface; forms igneous rock
I HAVE:	Magma	WHO HAS:	Movement of energy along or within Earth's surface caused by movement of tectonic plates
I HAVE:	Seismic Wave	WHO HAS:	A dislocation along a break in a rock surface
I HAVE:	Fault	WHO HAS:	Shaking or tremors of the ground caused by movement of tectonic plates
I HAVE:	Earthquakes	WHO HAS:	Outer layer of Earth (anywhere from 6-22 miles deep under land or ocean)
I HAVE:	Crust	WHO HAS:	An area where two plates converge, diverge or move past one another
I HAVE:	Boundary	WHO HAS:	Formed by the cooling and solidifying of magma (beneath surface) or lava (at surface); (ex: granite)
I HAVE:	Igneous Rock	WHO HAS:	Outermost layer of Earth (soil)
I HAVE:	Pedosphere	WHO HAS:	A large section of the lithosphere that is capable of movement due to forces within the Earth

Earth's Atmosphere

I HAVE:	Troposphere	WHO HAS:	The study of the atmosphere and all that takes place within the atmosphere
I HAVE:	Meteorology	WHO HAS:	Layer of Earth's atmosphere where solar radiation reacts with gas molecules to form auroras
I HAVE:	Thermosphere	WHO HAS:	Occurs when water vapor cools and turns into a liquid
I HAVE:	Condensation	WHO HAS:	Layer of Earth's atmosphere that contains the ozone layer
I HAVE:	Stratosphere	WHO HAS:	Water that falls back to Earth as rain, snow, sleet or hail
I HAVE:	Precipitation	WHO HAS:	Large porous layers of underground rock that contain water
I HAVE:	Aquifers	WHO HAS:	Evaporation of water out of the leaves of plants
I HAVE:	Transpiration	WHO HAS:	The average temperature, precipitation, humidity, air pressure and wind in a specific place over time
I HAVE:	Climate	WHO HAS:	Device that measures wind speed
I HAVE:	Anemometer	WHO HAS:	Weight of the Earth's atmosphere pressing down upon its surface
I HAVE:	Air pressure	WHO HAS:	Device that measures air pressure
I HAVE:	Barometer	WHO HAS:	State of the atmosphere at a certain place at a specific time
I HAVE:	Weather	WHO HAS:	Device that measures the amount of water vapor
I HAVE:	Hygrometer	WHO HAS:	Layer of Earth's atmosphere that is home to organisms, contains gases and is where weather occurs

I HAVE:	Weather Map	WHO HAS:	The change in pressure from one area to another
I HAVE:	Pressure Gradient	WHO HAS:	The condition and health of the atmosphere
I HAVE:	Air Quality	WHO HAS:	Leading edge of a warm air mass; brings heavy rain
I HAVE:	Warm Front	WHO HAS:	Warm ocean current in the Atlantic
I HAVE:	Gulf Stream	WHO HAS:	Clouds that produce thunder and lightning; usually indicate the presence of strong storms
I HAVE:	Cumulonimbus Clouds	WHO HAS:	Extremely large rotating storm that forms over warm ocean water
I HAVE:	Hurricane	WHO HAS:	Large section of the lower troposphere that has the same weather conditions throughout
I HAVE:	Air Mass	WHO HAS:	Transfer of heat from one place to another (related to liquids and gases)
I HAVE:	Convection	WHO HAS:	Thin, feathery, high level clouds
I HAVE:	Cirrus Clouds	WHO HAS:	Strong winds that form a narrow zone in the upper troposphere
I HAVE:	Jet Stream	WHO HAS:	Leading edge of a cooler air mass; brings a line of showers or thunderstorms
I HAVE:	Cold Front	WHO HAS:	A change in the course of objects caused by the Earth's rotation
I HAVE:	Coriolis Effect	WHO HAS:	A steady, continuous flow of air or ocean water
I HAVE:	Current	WHO HAS:	Visual representation of the movement of weather conditions
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The Hydrosphere

I HAVE:	Solvent	WHO HAS:	Cloudy or opaque; due to stirred up sediment or particles in water
I HAVE:	Turbid	WHO HAS:	Refers to the amount of salt contained within a solution
I HAVE:	Salinity	WHO HAS:	Valuable water resource on Earth; provides drinking water
I HAVE:	Ground Water	WHO HAS:	Occurs when less-dense surface water is replaced by cold, denser, more nutrient-rich water from below
I HAVE:	Upwelling	WHO HAS:	Any substance below 7 on the pH scale
I HAVE:	Acid	WHO HAS:	Often reliant on chemical energy and is independent of sunlight energy or photosynthetic producers
I HAVE:	Deep Ocean	WHO HAS:	Underground rock layer that contains a vital source of water for human consumption and use
I HAVE:	Aquifer	WHO HAS:	A measure of how suitable water may be for drinking
I HAVE:	Potability	WHO HAS:	The scale that is used to identify acids and bases (ranges from 0-14)
I HAVE:	pH scale	WHO HAS:	Relies on algae to act as producers; the majority of the world's oxygen is produced in this ecosystem
I HAVE:	Open Ocean	WHO HAS:	Oxygen found in a body of water; measurements may be used to indicate the degree of health of the water
I HAVE:	Dissolved Oxygen	WHO HAS:	The area of land where surface water drains when the ground is unable to absorb it
I HAVE:	Watershed	WHO HAS:	The process of purifying or clarifying water to make it more potable
I HAVE:	Water Treatment	WHO HAS:	A liquid that dissolves substances called solutes

## I Have, Who Has - Activity from LearnEdNotebooks.com Earth History

I HAVE: Geology	WHO HAS:	Fossil that forms when minerals solidify into rock around the shape of the organism, leaving a cavity
I HAVE: Mold Fossil	WHO HAS:	Refers to the information provided by all of the discovered fossils throughout Earth's history
I HAVE: Fossil Record	WHO HAS:	Subdivision of a period; shortest division of geologic time
I HAVE: Epoch	WHO HAS:	Method of determining the age based on measuring radioactive elements (radiometric)
I HAVE: Radioactive Dating	WHO HAS:	Fossil that forms when a mold is filled with sediment and hardens into the shape of that organism
I HAVE: Cast Fossil	WHO HAS:	A common fossil found in many areas from a specific time; used to help identify the age of other formations
I HAVE: Index Fossil	WHO HAS:	Remains or impression of an organism preserved in petrified rock
I HAVE: Fossil	WHO HAS:	Very large division of geologic time; usually referred to as the longest division of time
I HAVE: Eon	WHO HAS:	States that younger rock is found above older rock when comparing sedimentary rock layers
IHAVE: Law of Superposition	WHO HAS:	A fossilized piece of evidence of an organism's activity
 		(footprint)
I HAVE: Trace Fossil	WHO HAS:	,
I HAVE: Trace Fossil  I HAVE: Geologic Time Scale	WHO HAS: WHO HAS:	(footprint) The system of time measurement involving the
   		(footprint)  The system of time measurement involving the formation of and changes to Earth  Determination of the age of a rock based on the

I HAVE:	Pollination	WHO HAS:	Leaf-like structure that forms a circular shape around the top of a stem and its reproductive parts
I HAVE:	Petal	WHO HAS:	The process by which plants or other organisms change glucose into usable energy
I HAVE:	Cellular Respiration	WHO HAS:	Flower part that produces pollen; located at the tip of the stamen
I HAVE:	Anther	WHO HAS:	Small pores that allow for the exchange of gases in and out of a plant
I HAVE:	Stomata	WHO HAS:	Flower part that contains ovules and eggs; located at the bottom of the pistil
I HAVE:	Ovary	WHO HAS:	The loss of water in plants; occurs as stomata open
I HAVE:	Transpiration	WHO HAS:	A green pigment in plants that allows for the absorption of sunlight for photosynthesis
I HAVE:	Chlorophyll	WHO HAS:	Female reproductive structure in a flower
I HAVE:	Pistil	WHO HAS:	Naturally occurring sugar that plants produce during photosynthesis
I HAVE:	Glucose	WHO HAS:	Thick and waxy outer covering of a plant that helps protect against moisture loss
I HAVE:	Cuticle	WHO HAS:	The process by which plants change sunlight, water and carbon dioxide to glucose and oxygen
I HAVE:	Photosynthesis	WHO HAS:	Special cells that change the size of the opening in stomata
I HAVE:	Guard Cell	WHO HAS:	Male reproductive structure in a flower
I HAVE:	Stamen	WHO HAS:	The transfer of pollen (male reproductive cells) from an anther to a pistil of a plant

I HAVE:	Lysosome	WHO HAS:	A cell that contains a true nucleus
I HAVE:	Eukaryotic Cell	WHO HAS:	Eukaryotic cell containing membrane-bound organelles in addition to a cell wall and chloroplasts
I HAVE:	Plant Cell	WHO HAS:	Unicellular prokaryotes that live nearly everywhere; some are helpful and some are harmful
I HAVE:	Bacteria	WHO HAS:	Found in plant cells (other photosynthetic cells); allow plants to make food using sunlight energy
I HAVE:	Chloroplasts	WHO HAS:	The membrane-bound structures in a cell that carry out the cell's internal processes
I HAVE:	Organelles	WHO HAS:	Surrounds the cell membrane in plant cells; maintains support and structure
I HAVE:	Cell Wall	WHO HAS:	Semi-permeable layer surrounding all cells; allows for the maintenance of homeostasis
I HAVE:	Cell Membrane	WHO HAS:	Control center of eukaryotic cells; contains genetic material
I HAVE:	Nucleus	WHO HAS:	Any organism composed of only one cell
I HAVE:	Unicellular	WHO HAS:	A cell that lacks a true nucleus and membrane-bound organelles
I HAVE:	Prokaryotic Cell	WHO HAS:	Energy-producing organelles
I HAVE:	Mitochondria	WHO HAS:	Unicellular eukaryotes that are specialized to live in many different environments
I HAVE:	Protists	WHO HAS:	Eukaryotic cell containing membrane-bound organelles without a cell wall or chloroplasts
I HAVE:	Animal Cell	WHO HAS:	Organelle that contains digestive enzymes to help a cell break down materials

Human Anatomy

I HAVE:	Muscular System	WHO HAS:	Describes an organism composed of more than one cell
I HAVE:	Multicellular	WHO HAS:	Protects organisms from pathogens that may harm it
I HAVE:	Immune System	WHO HAS:	A functioning part of an organism that carries out a specific task for its survival
I HAVE:	Organ	WHO HAS:	Cycles blood throughout the body to supply cells with oxygen
I HAVE:	Circulatory System	WHO HAS:	A cell that has a unique structure necessary for carrying out specific functions
I HAVE:	Specialized Cell	WHO HAS:	The outermost covering of the human body; helps to maintain internal conditions
I HAVE:	Skin	WHO HAS:	Provides support and protection; anchors muscles for movement
I HAVE:	Skeletal System	WHO HAS:	A group of the same type of cells working together to achieve a function
I HAVE:	Tissue	WHO HAS:	Allows organisms to take in oxygen for metabolic purposes
I HAVE:	Respiratory System	WHO HAS:	The study of the form and function of a living organism
I HAVE:	Morphology	WHO HAS:	Processes food and allows it to be converted to usable energy
I HAVE:	Digestive System	WHO HAS:	A collective group of similar organs working together to achieve a greater function
I HAVE:	Organ System	WHO HAS:	Allows cell to cell communication; sends impulses along a network of nerves
I HAVE:	Nervous System	WHO HAS:	Allows the body to move; generates heat and energy

I HAVE:	Heterozygous	WHO HAS:	Bundles of genetic information; contain many genes
I HAVE:	Chromosomes	WHO HAS:	Physical appearance of a trait (round or wrinkled peas)
I HAVE:	Phenotype	WHO HAS:	Occurs when genes are exchanged between two chromosomes; leads to genetic diversity
I HAVE:	Crossing Over	WHO HAS:	Trait that appears over a recessive form when both alleles are present
I HAVE:	Dominant Trait	WHO HAS:	Alternative form of a gene on a chromosome
I HAVE:	Allele	WHO HAS:	Cell that contains only one copy of a chromosome set (23 chromosomes in human gametes)
I HAVE:	Haploid	WHO HAS:	A trait that does not appear unless the dominant allele is absent
I HAVE:	Recessive Trait	WHO HAS:	Two identical alleles (HH or hh); homo=same
I HAVE:	Homozygous	WHO HAS:	Segment of repeating nucleotides in DNA; contributes to the expression of a trait
I HAVE:	Gene	WHO HAS:	An individual with an allele for a recessive trait that is not expressed because a dominant one overrules it
I HAVE:	Carrier	WHO HAS:	Genetic make up of a trait (RR, Rr or rr)
I HAVE:	Genotype	WHO HAS:	Process of making new body cells (2 identical daughter cells produced from one parent cell)
I HAVE:	Mitosis	WHO HAS:	The transmission of traits from parent to offspring
I HAVE:	Inheritance	WHO HAS:	Two non identical alleles (Hh); hetero=different

Diversity of Life

I HAVE:	Biodiversity	WHO HAS:	Genetic make up of a trait an organism possesses
I HAVE:	Genotype	WHO HAS:	"Survival of the fittest"
I HAVE:	Natural Selection	WHO HAS:	The preserved remains of a once living organism; used for geological study and biological comparisons
I HAVE:	Fossil	WHO HAS:	Characteristics of organisms based on physical or anatomical traits
I HAVE:	Morphological Features	WHO HAS:	Segment of DNA that contributes to the expression of a trait
I HAVE:	Gene	WHO HAS:	Group of the same type of organisms that may breed and produce fertile offspring
I HAVE:	Species	WHO HAS:	Beneficial traits are passed from generation to generation
I HAVE:	Reproductive Success	WHO HAS:	The study and comparison of the structures of different biological organisms
I HAVE:	Comparative Anatomy	WHO HAS:	System of placing organisms in groups based on similarities (taxonomy)
I HAVE:	Classification	WHO HAS:	Beneficial trait that allows an organism to be better suited for survival and reproduction
I HAVE:	Adaptation	WHO HAS:	Physical appearance of a trait an organism possesses
I HAVE:	Phenotype	WHO HAS:	Deoxyribonucleic acid; contains hereditary information for a living organism
I HAVE:	DNA	WHO HAS:	Characteristics of organisms based on DNA or genetic factors
I HAVE:	Biochemical Features	WHO HAS:	The wide variety of living organisms that inhabit the planet

### I Have, Who Has - Activity from LearnEdNotebooks.com Biotechnology

		Ві	otechnology
I HAVE:	DNA	WHO HAS:	Using biotechnology techniques to solve environmental issues
I HAVE:	Bioremediation	WHO HAS:	Segment of DNA that codes for a trait
I HAVE:	Gene	WHO HAS:	Component of all cells and living organisms, expresses traits
I HAVE:	Protein	WHO HAS:	Reproduction involving two parents, allows for the recombination of genes (leads to genetic diversity)
I HAVE:	Sexual Reproduction	WHO HAS:	Mating and producing offspring of animals or plants for specific traits (artificial selection)
I HAVE:	Selective Breeding	WHO HAS:	Unicellular prokaryotic organisms with many important applications in the field of biotechnology
I HAVE:	Bacteria	WHO HAS:	Field of study using living organisms to help manufacture medicine or other technologies
I HAVE:	Biotechnology	WHO HAS:	Reproduction involving only one parent
I HAVE:	Asexual Reproduction	WHO HAS:	A genetically modified organism with a gene from another living organism inserted into its genetic code
I HAVE:	Transgenic Organism	WHO HAS:	An antibiotic (used to treat bacterial infections) produced naturally from certain types of mold
I HAVE:	Penicillin	WHO HAS:	Scientific techniques used in crime scene investigations
I HAVE:	Forensics	WHO HAS:	The study of heredity and the passing of genes from parent to offspring
I HAVE:	Genetics	WHO HAS:	Branch of biotechnology that alters the genes in organisms for a medicinal or agricultural purpose
I HAVE:	Genetic Modification	WHO HAS:	Deoxyribonucleic acid; contains all hereditary information for a living organism

Health & Disease

I HAVE:	Microbiology	WHO HAS:	Any disease-causing microbe
I HAVE:	Pathogen	WHO HAS:	A rapidly spreading outbreak of disease across the world (ex: smallpox, TB, certain flu outbreaks)
I HAVE:	Pandemic	WHO HAS:	Poisonous substance that may cause serious effects on the body
I HAVE:	Toxin	WHO HAS:	Nonliving pathogen that is capable of infecting and reproducing within living hosts
I HAVE:	Virus	WHO HAS:	Unicellular prokaryotic organisms; some are helpful, some are harmful (may be treated with antibiotics)
I HAVE:	Bacteria	WHO HAS:	Multicellular eukaryotic organisms that obtain nutrients by breaking down organic matter
I HAVE:	Fungi	WHO HAS:	Unicellular eukaryotic organisms; may cause infections (malaria, African sleeping sickness)
I HAVE:	Protozoa	WHO HAS:	Organism that benefits from a host organism while the host is harmed
I HAVE:	Parasite	WHO HAS:	Something capable of spreading disease without being infected itself (rats, mosquitoes, soil, parasites)
I HAVE:	Vector	WHO HAS:	A rapidly spreading outbreak of disease affecting many large populations (ex: typhoid)
I HAVE:	Epidemic	WHO HAS:	Caused by invasion of a pathogen, often causing harm to tissues
I HAVE:	Infection	WHO HAS:	Genus of bacteria commonly known for causing strep throat
I HAVE:	Streptococcus	WHO HAS:	Chemical reactions that allow food to be converted into usable energy or stored in tissues
I HAVE:	Metabolism	WHO HAS:	Science of studying disease-causing microorganisms (bacteria, viruses, fungi, etc.)

I HAVE:	Commensalism	WHO HAS:	Seas, oceans; cover up to 75% of Earth's surface
I HAVE:	Marine Ecosystems	WHO HAS:	Organism that must get food energy from other sources (heterotroph)
I HAVE:	Consumer	WHO HAS:	A living thing influencing or affecting an ecosystem (predators, prey, bacteria, plants, etc.)
I HAVE:	Biotic Factor	WHO HAS:	A series of feeding levels representing the flow of energy and transfer of matter in an ecosystem
I HAVE:	Food Web	WHO HAS:	System of interactions between organisms on land (forests, meadows, deserts, etc.)
I HAVE:	Terrestrial Ecosystem	WHO HAS:	All of the individuals of one species living in the same area
I HAVE:	Population	WHO HAS:	Organism that makes its own food (autotroph); often uses original sunlight energy
I HAVE:	Producer	WHO HAS:	A nonliving thing influencing or affecting an ecosystem (weather, water, wind, sunlight, etc.)
I HAVE:	Abiotic Factor	WHO HAS:	Organism that breaks down once living material (bacteria, fungi)
I HAVE:	Decomposer	WHO HAS:	A symbiotic relationship in which one organism benefits and the other is harmed
I HAVE:	Parasitism	WHO HAS:	A community of organisms interacting with one another surrounded by a physical environment
I HAVE:	Ecosystem	WHO HAS:	A symbiotic relationship in which both species benefit
I HAVE:	Mutualism	WHO HAS:	An organism's job or role in an environment; ensures its survival and reproduction
I HAVE:	Niche	WHO HAS:	A symbiotic relationship in which one organism benefits and the other is neither helped nor harmed