Dear Parents and Guardians,

I hope this message finds you well and that you and your family are enjoying a restful summer. As we look ahead to the upcoming school year, we wanted to share an important reminder regarding science vocabulary.

To ensure a smooth and successful start to the school year, it is essential that students review key science vocabulary terms over the summer. A strong understanding of these terms will help your child better grasp new concepts and engage more confidently in classroom activities and discussions.

Throughout the school year, teachers will be giving **graded assignments—including quizzes and short written tasks**—to assess students' familiarity with the vocabulary. Reviewing these terms in advance is highly recommended.

Here are some helpful ways your child can review and study science vocabulary:

- **Make and use flash cards (paper or digital using apps like Quizlet/Quizizz)**
- **Review past science notebooks or class materials**
- **Practice vocabulary games or matching activities**
- **Work with a study partner or family member to quiz each other**

We appreciate your support in helping your child start the school year prepared and confident. Please don't hesitate to reach out if you have any questions or would like resources to help with summer studying.

Thank you and enjoy your summer!

Warm regards,

Middle School Science Teachers

6th Grade Vocabulary

acceleration
amplitude
Atmosphere
Atom
autotroph
binomial nomenclature
Biosphere
boiling point
Cell
Cell theory
chemical
Chemical weathering
controlled
Cryosphere
Dependent variable
deposition
empirical
Energy
erosion
eukaryote
evidence
force
Friction
generation

Geosphere
Glacier
Gravity
homeostasis
Hydrosphere
hypothesis
Independent variable
infiltration
Kinetic energy
kingdom
Land breeze
law (scientific law)
model (scientific model)
molecule
niche
Nucleus (cell)
observations
opaque
organ
Organ system
Organelle
Organism
Physical weathering
Potential energy

Precipitation
pressure
prokaryote
properties
repetition
replication
saturation
Sea breeze
Species
Speed
systematic
temperature
test
theory (scientific theory)
Tissue
unit
Variable
Water cycle
weathering
Work

7th Grade Vocabulary

acceleration
Adaptation
allele
amplitude
astronomical
autotroph
binary
binomial nomenclature
boiling point
chemical
commensalism
conduction
controlled
convection
convergent boundary
divergent boundary
dominant trait
EM spectrum
empirical
eukaryote
evidence
evolution (scientific theory of evolution)
fault
fission
fold
force
generation
heterogeneous
heterozygous
homeostasis
homogeneous
homozygous
hypothesis
igneous rock
independent
infiltration
law (scientific law)
light year
Limiting factor
Melting point
metamorphic rock
model (scientific model)
molecule
mutualism
Natural selection
niche
nucleus
observation
opaque
outcome
parasitism
plate boundary
predator
pressure
prey
prokaryote
properties
radiation
recessive trait
repetition
replication
rock cycle
saturation
sedimentary rock
subduction
symbiosis
systematic
temperature
test
theory (scientific theory)
transform boundary
translucent
transparent
trophic level
Uplift
variable
Wave

8th Grade & Physical Science Vocabulary

Acceleration
acid
allele
amplitude
asteroid
astronomical unit
atom
autotroph
base
binomial nomenclature
boiling point
cellular respiration
chemical change
chemical property
chemical reaction
comet
compound
controlled variable
density
dependent variable
dominant
dwarf planet
electron
element
eukaryote
evidence
evolution (scientific theory)
fault
fission
fold
force
friction
galaxy
generation
heterogeneous
heterozygous
homogeneous
homozygous
homeostasis
hypothesis
independent variable
infiltration
kingdom
law (scientific law)
mass
matter
melting point
mixture
model (scientific model)
molecule
moon
motion
nebula
net force
neutron
Newtons Laws of Motion
niche
nucleus
observations
opaque
outcome
pH
photosynthesis
physical change
physical property
planet
pressure
product
prokaryote
properties
proton
reactant
recessive
repetition
replication
saturation
solute
solution
solvent
star
suspension
temperature
theory (scientific theory)
translucent
transparent
variable
volume

Biology Vocabulary List

Science Skills

Scientific Question

Biology

Scientific Method

Hypothesis

Experimental Design

Variable

Independent Variable

Dependent Variable

Control Group

Experimental Group

Observation

Inference

Conclusion

Prediction

Evidence

Theory

Model

Sample

Bias

Constants

Qualitative Observations

Quantitative Observations

Homeostasis

Metabolism

Heredity

Macromolecules

Carbohydrate

Monosaccharide

Polysaccharide

Starch

Protein

Amino Acid

Polypeptide

Lipid

Fatty Acid

Glycerol

Nucleic Acid

Nucleotide

Polar

Nonpolar

Hydrophobic

Hydrophilic

Nitrogenous Base

Monomer

Polymer

Acid

Base

pH

Cell Structure/Function

Cell

Organelle

Nucleus

Cell Membrane

Semipermeable

Cytoplasm

Ribosome

Mitochondria

Vesicle

Cell Wall

Vacuole

Chloroplast

Eukaryote

Prokaryote

Unicellular

Multicellular

Tissue Organ

Organ System

Diffusion

Osmosis

Facilitated Diffusion

Concentration Gradient

Hypertonic

Hypotonic

Equilibrium

Isotonic

Passive Transport

Active Transport

Cell Metabolism

Chemical Reaction

Reactant

Product

Denature

Catalyst

Enzyme

Substrate

Active Site

ATP

Cellular Respiration

Aerobic

Fermentation

Krebs Cycle

Anaerobic

Autotroph

Heterotroph

Photosynthesis

Chlorophyll

Stomata

Cell Reproduction

DNA

Meiosis

Cell Cycle

Fertilization

DNA Replication

Gamete

Zygote

Purine

Cytokinesis

Pyrimidine

Interphase

Prophase

Metaphase

Anaphase

Telophase

Synapsis

Adenine

Guanine

Cytosine

Thymine

Uracil

RNA

Transcription

mRNA

Codon

Translation

tRNA

rRNA

Protein Synthesis

Chromosome

Gene

Gene Regulation

Mutation

Binary Fission

Mitosis

Asexual Reproduction

Sexual Reproduction

Haploid

Offspring

Genetics & Evolution

Homologous Chromosomes

Adaption

Allele

Evolution

Dominant

Resistance

Recessive

Gene Flow

Homozygous

Gene Pool

Heterozygous

Genetic Drift

Genotype

Phenotype

Extinction

Purebred

Hybrid

Speciation

Law of Segregation

Law of Independent Assortment

Fossil

Incomplete Dominance

Analogous Structures

Codominance

Homologous Structures

Multiple Alleles

Vestigial Structures

Polygenic Trait

Embryology

Genetics

Punnett Square

Probability

Sex---Linked Trait

Biotechnology

Genetic Engineering

Species

Variation

Inheritable Characteristics

Natural Selection

Mutation

Replication

Vaccine

Pathogen

Unity & Diversity of Life

Classification

Taxonomy

Domain

Kingdom

Phylum

Class

Order

Family

Genus

Species

Protists

Fungi

Dichotomous Key

Protozoan

Flagellum

Spore

Algae

Invertebrates

Arthropod

Exoskeleton

External Fertilization

Internal Fertilization

Vertebrate

Lung

Ectotherm

Endotherm

Placenta

Umbilical Cord

Zygote

Blastula

Gastrula

Unity & Diversity of Life (Continued)

Embryo

Fetus

Nonvascular Plants

Vascular Tissue

Gymnosperm

Angiosperm

Xylem

Phloem

Pollen

Ovule

Anther

Style

Petals

Stamen

Pistil

Pollination

Mimicry

Camouflage

Coevolution

Pathogen

Toxin

Virus

Passive Acquired Immunity

Behavior

Innate Behavior

Habituation

Migration

Ecology & Environment

Ecosystem

Pollution

Ecology

Eutrophication

Population

Urbanization

Community

Deforestation

Symbiosis

Mutualism

Commensalism

Parasitism

Renewable Resource

Nonrenewable Resource

Global Warming

Chlorofluorocarbons (CFC's)

Parasite

Host

Erosion

Deposition

Predator Prey

Abiotic Factor

Biotic Factor

Limiting Factor

Density-dependent Limiting Factor

Density-independent Limiting Factor

Carrying Capacity

Carbon Cycle

Producer

Consumer

Heterotroph

Autotroph

Herbivore

Carnivore

Omnivore

Scavenger

Decomposer

Food Chain

Food Web