Unit 1 - Energy: Conservation and Transfer

Circle Map – defining in context

Energy Power

Matter Work

Mass Machine

Motion

Bubble Map – describing using adjectives

Energy Power

Matter Work

Mass Machine

Motion

Double Map – comparing and contrasting

Potential/Kinetic Energy

Tree Map – classifying or grouping

Types of simple machines\*

Thermal Energy\*

Types of fossil fuels

Flow Map – ordering events

Energy transformation

Types of transportation

Newton’s Laws of motion

Multi-flow Map – identifying cause and effect

Newton’s Laws and motion of objects

Brace Map – identifying part/whole relationships

Electrical circuits

Bridge Map – analogies

Unit 2 – Forces and Motion

Circle Map – defining in context

Motion Friction

Force Satellite

Acceleration Graph

Bubble Map – describing using adjectives

Motion Friction

Force Satellite

Acceleration Graph

Double Map – comparing and contrasting

Weight/Mass

Balanced/unbalanced forces

Average speed/instantaneous speed

Tree Map – classifying or grouping

Newton’s Laws of Motion

Types of Friction

Types of Motion

Flow Map – ordering events

Multi-flow Map – identifying cause and effect

Newton’s Laws of Motion and motion of objects

Magnets and gravitational force

Gravitational force

Brace Map – identifying part/whole relationships

Bridge Map – analogies

Unit 3 – Structures and Function of Living Organisms

Circle Map – defining in context

Cells

Microbes Protists

Tissues Organs

Organisms Digestion

Respiration Reproduction

Circulation Excretion

Bubble Map – describing using adjectives

Cells

Microbes Protists

Tissues Organs

Organisms Digestion

Respiration Reproduction

Circulation Excretion

Double Map – comparing and contrasting

Prokaryotes/Eukaryotes Viruses/Bacteria

Unicellular/multicellular

Vaccines/antibiotics

Plant/Animals cells

Tree Map – classifying or grouping

Microbes Protists

Methods protists obtain food Organelles

Methods of protist locomotion

Functions of organelles

Major functions of cells

Processes of animal cells

Functions of skeletal system\*

Functions of the circulatory system

Functions of the respiratory system

Functions of the digestive system

Functions of the skin

Functions of urinary system

Functions of reproductive system

Flow Map – ordering events

Homeostatis

Cell processes

Living things organization

Multi-flow Map – identifying cause and effect

Organ systems and homeostatsis

Diseases of viruses, bacteria, protists

Ways to reduce infections

Healthy lifestyle

Brace Map – identifying part/whole relationships

Part of skeletal system\*

Parts of the circulatory system

Parts of the respiratory system

Parts of the digestive system

Organs of the excretory system

Parts of the nervous system

Parts of the urinary system

Organs of the male and female reproductive system

Bridge Map – analogies

Unit 4 – Evolution and Genetics

Circle Map – defining in context

Heredity

Genes

Chromosomes

Reproduction

Bubble Map – describing using adjectives

Heredity

Genes

Chromosomes

Reproduction

Double Map – comparing and contrasting

Genes/Alleles

Phenotypes/Genotypes

Traits/Heredity

Mitosis/Meiosis

Chromosomes/Genes

Dominant/Recessive triats

Sexual/Asexual reproduction

Tree Map – classifying or grouping

Genetics disorders

Sex-linked disorders

Dominant traits

Recessive traits

Flow Map – ordering events

Meiosis

Mitosis

Multi-flow Map – identifying cause and effect

Chromosomes and inheritance

Probability and genetics

Genes/Alleles to genotype/phenotype

Environmental factors and human characteristics/diseases

Lifestyle choices and human characteristic/diseases

Genetic medical conditions

Brace Map – identifying part/whole relationships

Bridge Map – analogies

Unit 5 – Earth Systems: Structures and Processes

Circle Map – defining in context

Weather Storms

Hurricane Tornado

Precipitation Water Cycle

Air

Bubble Map – describing using adjectives

Weather Storms

Hurricane Tornado

Precipitation Water Cycle

Air

Double Map – comparing and contrasting

Hurricane/Tornado High/Low pressure

Cyclones/Anitcyclones

Tree Map – classifying or grouping

Layers of Atmosphere\* Types of Clouds\*

Atmospheric Properties\* Precipitation\*

Types of Weather fronts Types of Storms

Composition of the Air Frontal boundaries

Energy Transfer Non-point pollution

Flow Map – ordering events

Water Cycle\*

Multi-flow Map – identifying cause and effect

Movement of moisture effect weather patterns on Earth

Coriolis effect and global wind patterns

Global winds on climate regions

Causes of smog

Human impact on atmosphere

Human impact on natural resources

Brace Map – identifying part/whole relationships

Bridge Map – analogies

\* Science IDEAS project [www.Scienceideas.org](http://www.Scienceideas.org)