



NAMC Upper Elementary (9-12) Curriculum Support Material



6-12 CLASSROOM GUIDE

- 6-12 Classroom Guide Glossary
- NAMC Classroom Guide Forms 6-12



WORLD HISTORY

World History CSM

Time and Rotation of the Earth

- Solar System Diagram

The 12-Hour and 24-Hour Clock Systems

- Times in the 12-Hour and 24-Hour Clock System

Common Needs of Early People

- Common Needs of Early People
- Clock of Eras (b/w)
- Timeline of Life (b/w)
- Timeline of People (b/w)

The Maya

- The Maya Number System

Early European Explorers

- Eight Early European Explorers

Research Questions

- Big-Picture Research Questions
- Basic Research Questions

Research

- Sample Research Notes Sheet

Research Report

- Summary of steps involved in writing a final research report
- Checklist for a research report
- Example of a simple sentence outline
- Example of a simple topic outline
- Example of a simple research report
- Example of a table of contents for a research report

Clock of Eras (color)

Timeline of Life (color)

Timeline of People (color)

Blank Research Notes Sheet

Mastery Checklists

- World History Year 4
- World History Year 5
- World History Year 6



ZOOLOGY

Zoology CSM

Local Animals

- Summary of the factors that influence animal routines
- Herbivores, omnivores, and carnivores and the type of foods they eat
- Animals and their homes
- Self-testing review sheet
- Worksheet: The Routines of Local Animals

External Anatomy and Classification

- The Linnaean classification of the humpback whale
- Animal classification chart
- Activity: Reviewing Classification Vocabulary
- Diagram: butterfly
- Diagram: spider
- Diagram: crab
- Diagram: snail
- Comparison of the features of arthropods and a mollusk
- The distinguishing features of four invertebrates
- Diagram: fish
- Diagram: frog
- Diagram: of tortoise
- Diagram: bird
- Diagram: guinea pig
- Comparison of the main features of five vertebrate classes

Identification

- Types of bird bills

Internal Anatomy and Physiology

- Diagram: biceps/triceps
- Diagram: Digestive system of an earthworm
- Organ systems and the life activities they perform
- Activity: Learning About the Organ Systems of Animals
- Sexual reproduction in animals
- Life cycle of a jellyfish
- Activity: Reviewing Animal Reproduction

Adapting to Different Habitats

- Examples of hot and cold deserts
- Interesting non-mammalian animals of the African grasslands
- Linnaean classification of some African grassland animals
- A general guide to the eating habits of some coral reef animals

Relationship of Humans with Animals

- Summary of animal byproducts

Science Experiment Template

Mastery Checklists

- Zoology Year 4
- Zoology Year 5
- Zoology Year 6



LANGUAGE ARTS

Language Arts 1 CSM

Review Sheets

Speaking and Listening Skills

- Chart, Techniques that can be used in a focused discussion
- Summary of techniques for attracting an maintaining and audience's attention
- Checklist when preparing to interview

Handwriting

- Guidelines for calligraphic script
- Special words and phrases in calligraphy

Grammar

- Teacher's sample review sheet for parts of speech
- Nouns
- Pronouns
- Articles
- Adjectives
- Conjunctions
- Prepositions
- Verbs
- Adverbs
- Sentence Analysis

Language Arts 2 CSM

Review Sheets

Reading and Literature

- Some Notes on Reading
- Novels

Mechanics of Writing

- Punctuation

Word Study

- Word Families, Graphemes, and Homonyms
- Acronyms, Abbreviations, and Contractions
- Hyphenation
- Dictionaries

Writing Essays and Research Reports

- Choosing a Topic and an Approach
- Gathering Information
- Organizing Information
- Brainstorming, Mapping, and Making an Outline
- Writing, Revising, and Presenting

Montessori Grammar Symbols

Sentence Analysis Box

Language Arts Glossary

Blank Review Sheets

- Blank Review Sheets Language Arts 1
- Blank Review Sheets Language Arts 2

Mastery Checklists

- Language Arts Year 4
- Language Arts Year 5
- Language Arts Year 6



MATHEMATICS

MATH 1: Whole Numbers and Fractions

Math 1 CSM

Numerical Place Value in the Decimal System

- Chart, Terms used in the hierarchy of numbers
- Place-value chart: Units, 10s and 100s repeat in each
- Working place-value
- Notation paper
- Notation paper 2

Operations with Whole Numbers

- Examples of prepared addition equation slips
- Examples of prepared subtraction equation slips
- Examples of prepared multiplication equation slips
- Examples of prepared division equation slips
- Illustration, Visualizing category multiplication for a 4-digit by 1-digit equation
- Illustration, Visualizing category multiplication for a 2-digit by 2-digit equation
- Illustration, Visualizing category multiplication for a 4-digit by 2-digit equation.

Multiples, Factors, and Divisibility

- Description of bead chains
- Multiples Table A
- Control chart for Multiples Table A
- Multiples Table B
- Control chart for Multiples Table B
- Multiples Table C
- Control chart for Multiples Table C

Fractions

- Units number line
- Textbox: About the charts of prepared equations for fractions
- Examples of prepared equations

Decimal Fractions

- Table of terms, notation, and colors for the first two classes of decimal fractions
- Place-value chart with decimal fractions.
- Propeller blade demonstrating that decimal numbers revolve around the number 1

Percents, Ratios, and Proportions

- Illustration, A percent is a fraction with a denominator of 100
- Illustration, 15 percent means 15 parts out of a hundred
- Illustration, Percents in relation to tenths and hundredths
- Illustration, In proportional figures, the ratio of one side to another is the same for both figures
- Table, Three basic types of percent problem can be solved with proportions
- Illustration, 25 percent of 16 equals 4

Rounding Off Numbers

- Tenths number line
- Illustration, Rounding off whole numbers
- Illustration, Rounding off decimal fractions
- Illustration, Examples of fractions number lines
- Illustration, Rounding off mixed numbers
- Illustration, Using round numbers to estimate total distance
- Illustration, Rod-shaped bacteria

Math 1 Practice Sheets

- Math 1 Practice Sheets Working Copy
- Math 1 Practice Sheets Control Copy

Math 1 Bonus Material

- Writing Equivalent Fractions

MATHEMATICS –MATH 2: Negative Number and Pre-Algebra Math 2 CSM

Negative Numbers

- The number line of integers from -20 to +20
- An equivalent form of +2 is $+5 + (-3)$
- An equivalent form of -4 is $-2 + (-2)$
- Additive inverses sum to 0
- Signed numbers
- Minus signs for dividing by negative numbers
- Order of operations
- Subtracting a positive number from a negative number
- Subtracting a negative number from a negative positive number
- A negative number times a positive number
- Order of operations example

Non-Terminating Decimals and Irrational Numbers

- Pi is an irrational number
- Inequalities may be thought of in terms of a number line

Pre-Algebra

- Approaching a word problem
- Solving a word problem step by step
- Table of squares
- Place values and their colors
- Table of cubes
- Three steps for finding the square root of a two-period number on the Algebraic Pegboard
- Six steps for finding the square root of a three-period number on the Algebraic Pegboard
- Four steps for finding the cube root of a number with two periods
- Six steps for finding the cube root of a number with three periods
- The powers of 2
- Counting to 20 in various bases

Math 2 Practice Sheets

- Math 2 Practice Sheets Working Copy
- Math 2 Practice Sheets Control Copy

Math 2 Bonus Material

- Binomial Cube Labels
- Equalities and Inequalities

Base Charts

- Base Charts for numbers 2–10

MATHEMATICS –MATH 3: Geometry

Math 3 CSM

Lines and Angles

- Nomenclature cards for relationships between lines
- Nomenclature cards for angles
- Nomenclature cards for relationships between angles
- Interior and exterior angles
- Angles formed by two straight lines cut by a transversal .

Triangles

- Nomenclature cards for the triangle and its parts
- Nomenclature cards for types of triangles
- Using parallel lines to see why interior angles sum to 180 degrees

Quadrilaterals

- Nomenclature cards for types of quadrilaterals

Many-Sided Polygons

- Nomenclature cards for the many-sided polygons
- Nomenclature cards for parts of the polygon
- Finding a polygon's interior angles by dividing the polygon into triangles
- Working table, Interior angles of polygons
- Control table, Interior angles of polygons

Parts of the Circle

- Nomenclature cards for parts of a circle
- Nomenclature cards for relationships between lines and circumferences
- Nomenclature cards for relationships between two circumferences
- Nomenclature cards for concentric circles

Geometric Solid Shapes

- Nomenclature cards for the geometric solids
- Solids of rotation
- The parts of a geometric solid shape
- The height of a geometric solid is measured perpendicular to its base
- Cross-sections through a rectangular prism and a cone
- Illustration, Geometric solids

Line Symmetry

- Illustration, butterfly
- Symmetrical and asymmetrical figures

Constructing Geometric Figures: Circles, Ellipses, and Squares

- $EP + E'P$ is constant, no matter where on the ellipse P is located

Constructing the Regular Polyhedra

- Template for constructing a tetrahedron
- Template for constructing a cube
- Template for constructing an octahedron
- Template for constructing a dodecahedron
- Template for constructing an icosahedron
- Template for constructing an icosahedron

Similar, Congruent, and Equivalent Shapes

- Similar, congruent and equivalent shapes

Calculating Area of Polygons and Circles

- Area is measured in square units
- The area of a square equals width x width
- A parallelogram is like a rearranged rectangle
- A triangle is equivalent to one-half of a square or rectangle with the same base and height
- The height of an obtuse triangle falls outside the triangle
- The obtuse triangle equals one-half of a parallelogram
- A trapezoid has a major base and a minor base
- Trapezoid rearranged as a rectangle
- Pentagon and circumscribed circle showing radii
- Pentagon and inscribed circle showing apothems
- Relationships between the triangle and the polygon
- Irregular polygons divide into triangles
- A many-sided regular polygon approximates a circle
- Summary of areas of geometric figures
- Nomenclature cards for finding the area of regular polygons
- Irregular polygons
- Irregular polygons divided into triangles
- Finding the area of irregular polygons

Calculating Volume of Geometric Solids

- A cubic unit of volume
- The volume of a rectangular prism
- The volume of a pyramid
- The volume of a cylinder
- The volume of a cone
- The volume of a sphere
- Volumes of geometric solids

Pythagorean Theorem

- Illustration, Pythagoras
- The Pythagorean theorem
- Square a^2 is equivalent to rectangle xc
- Square b^2 is equivalent to rectangle yc

Nomenclature Cards

- Angles

Math 3 Practice Sheets

- Math 3 Practice Sheets Working Copy
- Math 3 Practice Sheets Control Copy

MATHEMATICS –MATH 4: Practical Applications

Math 4 CSM

Word Problems

- Diagram, Sketching a word problem often makes it easier to solve
- Solving a word problem step by step
- Some helpful strategies for solving word problems
- Approaching a word problem

Money

- Examples of foreign exchange rates

Measurement

- Imperial and US customary units of length
- Metric units of length
- Converting length from imperial or US customary units to metric units
- Converting length from metric units to imperial or US customary units

Weight

- Imperial and US customary units of weight
- Metric units of weight
- Converting weight from imperial or US customary units to metric units
- Converting weight from metric units to imperial or US customary units

Temperature

- The Celsius and Fahrenheit temperature scales
- Celsius and Fahrenheit temperature conversion table
- Diagram, Comparing the Fahrenheit and Celsius scales

Graphs

- Picture graph for books read in one week by four classes
- Bar Graphs and Circle Graphs
- Line Graphs and Scatter Plots
- Graphing with Ordered Pairs

Statistics

- Number of dogs per person at Rover Park
- Frequency table, for the number of dogs per person at Rover Park
- Miles run by 30 students in the Duck Lake School running club
- Frequency table, Number of pets in students' families

UE Math 4 Bonus Material

- Sample Word Problems
- Locating Ordered Pairs
- Means and Medians

Graphing Word Problems

Math 4 Practice Sheets

- Math 4 Practice Sheets Working Copy
- Math 4 Practice Sheets Control Copy

MATH TEMPLATES

- Algebraic Pegboard
- Algebraic Pegboard (color)
- Binomial Square – Full
- Binomial Square – Full (color)
- Binomial Square – Simple
- Binomial Square – Simple (color)
- Checkerboard
- Checkerboard (color)
- Decimal Fraction Board
- Decimal Fraction Board (color)
- Monomial Square
- Monomial Square (color)
- Trinomial Square – Full
- Trinomial Square – Full (color)
- Trinomial Square – Simple
- Trinomial Square – Simple (color)

MASTERY CHECKLISTS

Math Mastery Checklists

- Mathematics Year 4
- Mathematics Year 5
- Mathematics Year 6

Geometry Mastery Checklists

- Geometry Year 4
- Geometry Year 5
- Geometry Year 6

UE MATH GLOSSARY



CULTURAL GEOGRAPHY

Cultural Geography CSM

Longitude and Latitude

- A great circle
- The shortest route between two points on a sphere
- Meridians of longitude
- Parallels of latitude
- Torrid, Temperate, and Frigid Zones
- How to read a topographic map
- How plane-table surveying works
- Measuring height with a plane table
- Determining height with a transit
- Aerial surveying

Map and Compass

- Earth's magnetic field
- Geographic North Pole and north magnetic pole
- True, magnetic and grid north
- Baseplate compass
- Planning a route on a topographic map
- Chart, Stages in a route
- Determining a bearing from a map
- Simple compass route
- Chart, Measuring a compass route
- Using a compass



SCIENTIFIC METHOD & TECHNOLOGY

Scientific Method & Technology CSM

Scientific Method

- The scientific method
- The compound microscope
- Sample drawing from microscopic observation
- The triple-beam balance
- Scale drawing on squared paper
- Summary of experimental variables
- Ball bounce heights
- Time standing on one leg

Technology

- The lever
- A fixed pulley
- A movable pulley

Overview of Cartography

- Locating an object in three-dimensional space
- Cartography - timeline

The Continents

- Major geographic regions of North America
- Major geographic regions of South America
- Major geographic regions of Europe
- Major geographic regions of East Asia
- Major geographic regions of the Middle Eastern desert
- Major geographic regions of Africa
- Major geographic regions of Australia
- Major geographic regions of Antarctica

The US

- Major geographic regions of the US

Environment and Culture

- Cultural celebrations around the world

Mastery Checklists

- Cultural Geography Year 4
- Cultural Geography Year 5
- Cultural Geography Year 6

- A block and tackle
- The six simple machines
- Parts of a Roman arch

Technology Research Projects

- Examples of technology research projects
- Steps to take when starting a technology research project

Science Experiment Template

Mastery Checklists

- Scientific Method & Technology Year 4
- Scientific Method & Technology Year 5
- Scientific Method & Technology Year 6



ASTRONOMY & ECOLOGY

Astronomy & Ecology CSM

Current Scientific Theory About the Creation of the Universe

- Chart, Measures of balloon expansion
- Blank chart, Measures of balloon expansion

The Life Cycle of Stars

- The Eagle Nebula
- Stellar nucleosynthesis
- The sun, a typical star
- Aldebaran, a red giant star next to the sun
- The Ring Nebula
- The Crab Nebula
- Relative sizes of stars
- Possible life cycles of a star .

The Visibility of Stars and Constellations

- Chart, Top five brightest stars as seen from the earth
- Distances (in light years) from earth to stars in the Big Dipper

Light-Years

- The orbits of the planets
- Chart, Distances in the solar system and beyond
- How Olaus Roemer determined the speed of light

Astronomical Tools

- A refracting telescope
- A reflecting telescope
- Adjustable radio telescope
- The solar spectrum

The Solar System

- The orientation of the sun and planets in the solar system
- Illustrations of the planets
- Chart, A few facts about the sun and planets
- Uranus spins on its side

Earth and Sun

- The earth rotates on its polar axis
- The earth orbits the sun

- Sunlight passes through the atmosphere
- Sunlight strikes the earth at different angles
- The earth at the equinox
- The earth at the northern winter solstice
- The shape of the earth's orbit

The Moon, Tides, and Eclipses

- Phases of the moon
- Direct and opposite high tides
- A tidal graph
- Spring and neap tides
- A partial lunar eclipse
- The sun, moon and earth during a solar eclipse

Asteroids, Comets, and Meteors

- Asteroid
- Comet
- Nucleus of comet Tempel 1
- The Barringer Meteor Crater
- The Pioneer 10 plaque
- Sample table for meteor experiment

Outer Space Exploration

- Timeline – Human space flight
- Model of Sputnik 1
- John Glenn
- Space shuttle docking with Mir
- Saturn V launch of Apollo 11
- Apollo 11 on the moon
- Timeline – Missions beyond the moon
- Timeline – Future of space exploration
- Surface of Venus
- Sojourner on Mars
- James Webb Space Telescope

The Web of Life

- Chart, Biome characteristics
- Biomes created by latitude
- Relationships between the biotic and abiotic parts of an ecosystem
- A food web
- A spider's web

Food Chains

- A food chain pyramid
- A compost bin at work
- Detritivore
- Fungus
- The coyote is a common scavenger
- Parasite

Dependence and Interdependence

- Chart, Moose and wolf populations

Adaptation and Evolution

- The arctic fox in summer and winter
- The arctic hare in summer and winter
- DNA
- The dodo bird



REGIONAL HISTORY

US HISTORY

US History CSM

Indigenous Peoples

- Map of area inhabited by the Indians of the American Woodlands
- Basic research questions about the Indians of the American Woodlands
- Blank chart, Basic Research Questions

Early European Explorers

- Conquistadors in the 1500s
- Examples of early European explorers in the US
- Basic research questions about early immigrants in New Amsterdam
- Blank chart, Basic Research Questions

Colonial America

- Examples of people and events involved in the history of the Jamestown colony
- Blank map of North
- The Mayflower Compact
- Map, Plymouth & Jamestown colonies
- Examples of people and events involved in the history of the Plymouth colony
- Blank map of the US today
- Map, The 13 colonies as of 1681

Water Pollution

- Domestic wastewater treatment

Air Pollution

- The greenhouse effect

Science Experiment Template

Mastery Checklists

- Astronomy and Ecology Year 4
- Astronomy and Ecology Year 5
- Astronomy and Ecology Year 6

- Big picture questions: the 13 colonies
- The Timeline of People
- Coded song “Follow the Drinking Gourd
- Words, terms and people associated with slavery in Colonial America

The American Revolution and the Declaration of Independence

- Some of the significant people and events of the American Revolution and the Declaration of Independence

Forming of the United States of America

- Map, The US doubled in size after the Louisiana Purchase
- Map, The US by 1900
- Eight significant events in the westward expansion of the US in the 1800s
- Issues associated with the War of 1812
- The Gettysburg Address
- Events, people and places of the American Civil War, 1861-1865
- A completed map showing the Secession

Technological and Social Changes, 1800–1914

- Examples of technological and social changes in the US, 1800-1914

The Effect of World Wars and Other Events, 1914–1945

- Some terms and dates associated with World War 1
- Some terms associated with the years between the World Wars
- Outline of events of World War 2

The States

- The 50 states in the order that they attained statehood
- Big picture questions: history of a state in a time of non-indigenous settlers
- Example of information a student could start compiling about Vermont, 1600-1791, by using big-picture questions

The American People

- Blank world map

CANADIAN HISTORY

Canadian History CSM

Indigenous Peoples

- List of possible basic research questions about the early Inuit
- Blank chart: Basic Research Questions
- Timeline of People

Exploration and Settlement by Europeans

- Examples of early European explorers in Canada
- List of possible basic research questions about early pioneer farmers
- Summary of major European colonies, 1604-1867
- Blank map of Canada
- Examples of people and events involved with the movement of European settlers into the west in the 17th and 18th centuries
- Examples of people and events involved with the War of 1812

Government, Politics, and Citizenship

- The three branches of federal government and how they interact
- The structure and responsibilities of the legislative branch
- The main components of the executive branch
- The structure of the judicial branch
- The three levels of government and their responsibilities
- Who can become an elected member of government?
- How a president is elected
- Presidents of the United States
- Some freedoms and rights included in the Bill of Rights

US History Glossary

Mastery Checklists

- US History Year 4
- US History Year 5
- US History Year 6

- Responsible government (1841-1848)
- Ministerial responsibility (1848)
- Significant events of the Union Period, 1841-1867
- Final steps leading up to Canada becoming a nation, 1864-1867
- Dates current provinces and territories joined Confederation

Technological and Social Changes, 1867–1914

- Examples of technological and social changes in Canada, 1867-1914

The Effect of World Wars and Other Events, 1914–1945

- Some terms and dates associated with World War 1
- Examples of action taken by government, early 1900s
- Outline of events of World War 2
- Some famous Canadians from the period between the wars

The Provinces and Territories

- Examples of big-picture questions – history of a province or territory
- Example of what a student could start compiling about the people of Nova Scotia by using big-picture questions

The Canadian People

- Some famous Canadian inventors
- Some famous Canadian scientists
- Some famous Canadian artists
- Some famous Canadian business people
- Some famous Canadian educators
- Some famous Canadian writers
- Some famous Canadian medical people



PHYSICAL GEOGRAPHY

Physical Geography CSM

Climate and the Atmosphere

- Layers of the atmosphere
- Layers of the atmosphere
- Climatic Zones
- Summary sheet: Biomes

Global Weather Patterns

- The circulation of high-and low-pressure air
- Global convection cells
- Prevailing winds and the Coriolis effect

Weather Systems and Weather Maps

- Cold front
- Warm front
- Sea breezes and land breezes

The Water Cycle, Clouds and Rainbows

- The water cycle
- Summary sheet: Cloud classification by type and altitude

Oceans and Seas

- Oceans
- The Grand Banks
- The Persian Gulf
- Surface ocean currents

Government, Politics, and Citizenship

- Canada's prime ministers
- Journey to the current Constitution
- Minor amendments to the Constitution since 1982
- Basic rights in the Charter of Rights and Freedoms
- Canadian Charter of Rights and Freedoms

Canadian History Glossary

Mastery Checklists

- Canadian History Year 4
- Canadian History Year 5
- Canadian History Year 6

- North Atlantic Deep-Water Current
- Thermohaline currents
- Ocean tides
- The Mediterranean Sea
- Seas of the western Pacific Ocean
- Summary sheet: The oceans

Rivers of Water and Ice

- The parts of a river
- Main drainage patterns of rivers
- Drainage patterns
- Major rivers of the world
- The parts of a glacier

Lakes, Wetlands, and Aquifers

- Major lakes of the world
- Lakes of the Great Rift Valley
- An aquifer

The Earth's Layers

- The interior of the earth
- Summary sheet: The layers of the earth
- Plate tectonics
- Map of the tectonic plates
- A convergent boundary
- A divergent boundary
- A transform boundary

Volcanoes

- A volcano
- Volcanic regions of the earth
- How mid-plate volcanoes form
- A cinder cone
- A composite volcano
- A shield volcano
- Four types of volcanoes

Earthquakes

- Three main types of faults
- The San Andreas Fault System
- Earthquake locations
- The hypocenter and epicenter of an earthquake
- P Wave, S Wave, Love Wave, Rayleigh Wave
- Earthquake scales

Continents, Islands, and Coastlines

- Continental and oceanic crust
- The stages of continental drift
- The continental shelf
- The world's ten largest islands
- Summary sheet: Coastline features
- Coastline features

Mountains, Valleys and Plains

- Major mountain ranges of the world
- Oceanic-continental convergence
- Fault-block mountains in Nevada
- An underwater valley
- An oceanic trench

Rocks and Minerals

- The most common elements in the earth's crust
- How atoms form the earth's crust
- Summary sheet: Mineral segregation
- How different types of rock form
- The rock cycle
- Stratigraphy
- Verne analysis of sedimentary
- Radiometric dating
- Fossil succession
- Paleomagnetism
- The Mohs scale of mineral hardness
- Template: Mineral classification table

Weathering and Erosion

- A storm surge
- Six main erosion processes
- Erosion and deposition on a meander

Mastery Checklists

- Physical Geography Year 4
- Physical Geography Year 5
- Physical Geography Year 6



BOTANY AND MICROSCOPIC STUDY

Botany and Microscopic Study CSM

Plant Review

- Parts of a flowering plant
- Parts of a tree
- Summary of organisms that are plants
- Self-testing review sheet

Classification

- Relationships between different plant groups
- Characteristics of monocotyledons and dicotyledons
- Characteristics of monocotyledons and dicotyledons
- Summary of the distinguishing features of plant groups
- The traditional Linnaean classification chart showing major plant groups
- Blank Worksheet: Traditional Linnaean classification

Roots

- Science Experiment template
- Structure of a root tip
- Summary of root types
- Summary of root functions

Stems

- Summary of stem types
- Parts of a stem
- Cross-section of a dicotyledon stem
- Cross-section of a tree trunk

Leaves

- Parts of the leaf
- Leaf shapes
- Types of leaf blades
- Leaf margins
- Leaf arrangements

Flowers

- Parts of the flower
- Stamen parts
- Pistil parts
- Clues for deciding how a flower is pollinated

Fruits and Seeds

- Fruit structure
- Types of fruit
- Types of dry dehiscent fruits
- Types of dry indehiscent fruits
- Summary of fleshy fruits
- Summary of dry fruits
- Mature bean seed

Identification

- Plant identification worksheet

Basic Needs of Plants

- Template, Observations of seed germination and seedling growth

Humans and Plants

- Examples of fruits, vegetables, and grains
- The plant parts from which spices are extracted

Microscopic Study

- Labeled and unlabeled Animal cell
- Labeled and unlabeled Plant cell

Microorganisms and Food Spoilage

- Five generations of cells reproducing by fission

Science Experiment Template

Mastery Checklists

- Botany and Microscopic Study Year 4
- Botany and Microscopic Study Year 5
- Botany and Microscopic Study Year 6



HEALTH SCIENCES

Health Sciences CSM

Inside the Human Body

- The nervous system
- The skeletal system
- The respiratory system
- The cardiovascular system
- The digestive system
- Template, self-testing review sheet
- Sense of taste
- Sense of smell
- The urinary system
- The immune system
- The endocrine system
- The skin
- The eye
- The ear

Safe Food Handling and Nutrition

- Hand washing steps
- Precautions to take when preparing and eating food
- Precautions to take when storing food
- Recommended daily caloric intake
- Ways to reduce fat intake
- Ways to reduce sodium (salt) intake
- Food advertising techniques



MATTER AND ENERGY

Matter and Energy CSM

Matter

Atoms

- Planetary model of the atom
- Cloud model of the atom
- Argon atom
- Carbon atom
- Elements and their atomic numbers

Molecules

- Oxygen molecule
- Water molecule
- Glucose molecule

Wellness

- Ways to keep from getting sick
- What to do during a cold or flu
- Questions to ask about a media message
- List, How to be safe online

Healthy Relationships with Self and Others

- Maslow's hierarchy of human needs
- Ways to make deposits into health accounts
- Asking HALTI questions to figure out needs
- Benefits of volunteering
- Ways to contribute to communities
- Communication styles: Assertive, passive, and aggressive

Physical Education

- Summary of the potential benefits of physical education

Mastery Checklists

- Health Sciences Year 4
- Health Sciences Year 5
- Health Sciences Year 6

Chemical Elements

- Chemical symbols for some common elements
- The Periodic Table of the Elements

The States of Matter

- The basic physical properties of solids, liquids and gases
- The three common states of matter: solid, liquid, gas
- Normal gas and plasma

Water Pressure and Air Pressure

- Water pressure is greater in deep water than in shallow water

Combinations of Matter

- Chemical formulas for some common compounds
- Molecules of some common compounds

Density

- Densities of some familiar substances compared to water

Energy**Energy Sources**

- Some common energy transformations
- A fossil fuel power plant
- A hydroelectric power plant
- Fission of a uranium atom
- A nuclear power plant

Sound

- Vibrations traveling away from a source are called sound waves
- An echo

Light

- Light travels in a straight line
- Looking along a sight line at an object
- How light reflects off a mirror
- Water reflects like a mirror
- A simple face is a good way to learn about reflection
- Words are reversed in a mirror

Electricity and Magnetism

- Electrons inside a magnet
- Electric current in a wire
- Electromagnetic fields for a magnet and a wire
- Electric current passes through a filament
- A battery in a simple electric circuit
- A homemade electromagnet
- Electrical power transmission and distribution
- Electromagnetic waves
- The seven groups of electromagnetic waves and their characteristics
- The electromagnetic spectrum

Gravity, Friction, and Inertia

- Calculating simple forces
- Velocity relative to the earth and a train

Science Experiment Template**Mastery Checklists**

- Matter and Energy Year 4
- Matter and Energy Year 5
- Matter and Energy Year 6