Assumption Science Curriculum										
Apply the scientific method to the solution of problems.	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Develop basic knowledge of the scientific process.										
Identify the steps of the scientific method.										
Predict outcomes of experiments and projects.										
Formulate questions that will deepen understanding of the topic students are working on.										
Develop an awareness of the need to adapt to any scientific situation.										
State a problem, draw a model, list supplies needed, and construct an invention that will help rectify problem.										
Compose hypotheses using class discussion and data.										
Desisgn experiments to test hypotheses.										
Use skills in identifying anomalies, formulating hypotheses, devising experiments, & interpreting data.										
Construct density experiment										
Demonstrate proper handling of lab equipment.	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Use various pieces of lab equipment to carry out experiments and record accurate data in metric units.										
Collect, record, and interpret data based on the study of earth & physical science.	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Describe behaviors of bubbles.										
Describe five characteristics of a house: furnishings, plumbing,paint, water, ventilation, heat/cool, electrical										
Collect and identify spiders and the appendages of the animal.										
Record class events on a learning calendar.										
Observe butterfly life cycle in classroom and then release adulty butterflies.										
Measure butterfly larvae growth.										
Plant seeds and predict germination.										
Record and measure plant growth.										
Record effects of light on plants.										
Record effects of water changes on plants.										
Separate solids from liquids by evaporation.										
Observe and describe clouds associated with passing fronts.										
Explore sense of sight										
Build a three-dimensional paper model of the skeletal system.										
Observe how bones work together during specific activities using the skeletal models.										
Explore the sense of taste.										
Use a teeter-totter as a model to introduce levers.										
Demonstrate that the placement of mass or weight affects the balance of a teeter-totter.										
Find similarities between wheels and axles with teeter-totters.										
Examine density through the manipulation of the mass and volume of assorted objects and liquids.										
Analyze plant biomass by identifying its components and show that released plant energy meas as heat.										
Construct graphs and see relationships.	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Fill in a calendar including yesterday, today, tomorrow: days of week and months.										
Label temperature, wind, sunrise, sunset, seasons, moonrise, moon set, snow/rain, on learning calendar.										
Read a pictorial weather forcast.										
Extract information from the newspaper regarding weather.										
Follow passage of fronts across continental US and Pacific using newspaper weather maps.										
Follow a given path through a map.										
Locate north, south, east, west on a map including recognition of the symbol.										
Identify water and streets on a map.										
Draw a simple map such as a bedroom or classroom.										
Label a boundary.										
Create a classroom floor plan.										
Draw bar and picture graphs.										
Construct line and bar graphs showing assorted relationships among varying sources of data.										

Analize graphs and answer questions from data										
Develop basic thinking skills.	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Develop labs and test hypothesis										

Assumption Science Curriculum

Weather and Earth	K	1	2	3	4	5	6	7	8
Define precipitation									
Label different kinds of precipitation.									
Define humidity and relative humidityas they relate to water vapor in the air leading to cloud formation.									
Draw four types of clouds.									
Describe a tornado and hurricane.									
Describe the differences between weather and climate.									
Identify four seasons.									
Draw the water cycle.									
Describe plate tectonics									

Animals	K	1	2	3	4	5	6	7	8
Describe and identify living and nonliving things.									
Identify animals.									
Recite the stages in butterfly development									
Draw the butterfly life cycle and predict how long each stage will take.									
Compare body parts of insects.									
Identify and explain the parts of a fish.									
Explain the growth and reproduction of a fish.									
Write a short report on animals.									
State three differences and similarities between vertebrates and invertebrates.									
Name the five groups of vertebrates and two things about each.									

Plants	K	1	2	3	4	5	6	7	8
Name different plants.									
Label basic plant parts: stem, roots, leaves, flowers, fruit, seeds									
Identify food, water, air, and sunlight as basic needs of plants.									
Identify root systems.									
Identify the different properties of vegetables.									
Classify and sort beans, pictures.									
Damage the hard coats on seeds and observe the effects on germination, recording data as percents.									
Identify the basic growing needs of a plant and formulate a plan to investigate propagation using sci method.									
Explain photosynthesis and define producer as any organism that carries on this process.									
Identify decomposition or organic matter as respiratory process; some substances resist decomposition.									
Define angiosperm and gymnosperm									

Health	K	1	2	3	4	5	6	7	8
Identify four basic food groups.									
Distinguish between healthy versus other foods.									
Make wise choices from the lunch menu.									
List the ingredients on a recipe.									
Identify the five senses and the related organs.									
Name at least four healthy habits: enough sleep, exercise, drinking water, brushing teeth…									
Locate heart, lungs, stomach within a human body frame.									
Identify and count the bones they can feel in different bone groups of their bodies.									
Determine the kinds of movement of the different bone groups.									
Describe parts of the skeleton and explain the function of these bones.									
Explain and identify the function of muscles and tendons.									
Describe and compare the function of the three kinds of muscles.									
Label drawings of the eye.									
Observe the function of the iris of the human eye.									

Read a description of the human ear.									
Identify and explain the parts of the brain and the function of each.									
Keep a food journal									

Assumption Science Curriculum

Energy, Light, and Matter	K	1	2	3	4	5	6	7	8
Identify three sources of energy such as: light, heat, fuel, batteries, etc.									
Introduce physics concepts force, acceleration, momentum, speed									
Verify that sunlight is composed of the light spectrum and combining colored light produces white light.									
Analyze the interactions of transmitted, reflected, refracted and absorbed light with varying light sources.									
Define solid, liquid, and gas.									
Define three states of matter.									
Identify methods of gas collection and identification.									
Introduce chemistry concepts									
Define and explain energy.									
Explain and give examples of kinetic and potential energy.									
Describe the different forms of energy.									
Identify the relationship between temperature and heat and use this to develop methods to measure heat.									
Identify a calorie									
Establish that substances can be analyzed and sythesized by using heat.									
Describe energy transfer.									
Identify major uses of energy									
Define matter as anything that occupies space and has the property of density.									
Search for evidence of atoms to verify the atomic model of matter and develop a model of atoms & molecules.									
Compare the historical principles which led to the development of our present day atomic theory.									
Force and Work	K	1	2	3	4	5	6	7	8
Define force and work.									
Develop and review definitions of forces as pushes or pulls.									
Name at least three simple machines and give examples.									
Classify levers by location of the fulcrum, resistance and effort.									
Identify the class of lever found in selected devices.									
Identify the kind of levers bone-muscle system make.									
Demonstrate the similarities and differences between screws and inclined planes.									
Explain different modes of transportation.									
Determine that the properties of mass seem to be more universal than the properties of volume.									
Define density as the relationship between mass and volume. Use to calculate densities of objects & liquids.									
Explain how the mass of an object and the density of a liquid determine the object's bouyancy.									
Observe friction, and other forces									
Space Exploration	K	1	2	3	4	5	6	7	8
Name the planets in order, including the asteroid belt.									
Name objects in space									
Descibe the structure of Earth									
Describe the gravitational effects of the sun and moon									
Name three features of our sun and four star colors.									
Identify and sequence the phases of the moon in order.									
Careers	K	1	2	3	4	5	6	7	8
Identify a meteorologist as a scientist who studies and forecasts weather.									

Assumption Science Curriculum	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Inventions	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Name at least five inventors and their inventions.									
Measure pint, quart, liter, grams									
Describe the difference between liquid versus solid measurements.									
Measure and record their weight and growth.									
Measure temperature using a thermometer.									
Describe the function of a compass.									
Be able to measure using centimeter and/or inches.									
Differentiate between Celsius and Fahrenheit on a thermometer.									
State 0 C is freezing (cold) point and 100 C is point of boiling (hot).									
Measure length using metric.									
Measure mass using metric.									
Measure the same objects with metric and standard systems.									
Compare the differences between metric and standard measure and be able to state which is larger or smaller.									
Know the basic units of measurement									
Develop skills in cooperative group work.	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Cooperate & collaborate on projects, recognizing each other's talents and learning how to come to consensus.									
Work in teams to develop reasoning skills									
Work in teams on a lab project									
Identify practices necessary to become responsible citizens of the earth.	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
List and describe different types of habitats with food, water, air, and shelter.									
Identify four sources of polution									
Identify alternate soueces of energy									
Define global warming									
Care for plant needs.									
Name two natural resources.									
Describe conservation and its importance.									
Make a list of safety rules.									
Recognize and explain safety and classroom rules using aphorisms.									
Dramatize fire safety rules and discuss impact of fire in our daily lives.									
Define recycling and decomposition.									
Classify objects according to recyclable, decomposable, or trash/other.									
Dramatize the phrase, "Reduce, Recycle, and Reuse" with aluminum.									
Recycle paper within the classroom.									
Care for the spiders the students collect.									
Recognize different types of soils and how plants grow in the soils.									
Evaluate the differences in the make-up and properties of soil samples using various tests.									
Analyze various ways water moves through soil and the impact this has on the environment.									
Discuss evidence of air pollution in the neighborhood and identifying these sources on a map of the area.									
Identify the six major air pollutants and their properties.									
Develop an understanding of the importance of conserving energy.									
Identify ways to take care of the body.									
Make a food chain with three strands.									
Create a food web using pictures.									
Individually investigate the food needs and problems of a specific country, sharing through oral & written reports									
Identify factors limiting food production in the world.									

Construct and design intruments for measuring.	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Construct and measure sunlight with a sun dial.									
Develop skills in critical listening and sharing ideas through oral reporting.									
Construct instruments for measuring wind direction.									
Construct instuments for measuring rainfall.									
Construct a barometer using students' definitions of pressure.									
Employ organizational skills.	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Explain and list ways to organize desk, notebook, and chairbacks.									
Compile notes in a science record book.									
Organize a science binder with tabs on each project.									
Effectively use technology within Science.	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Use smartboard technology to explain concepts									
Use smartboard technology to view educational films									
Use smartboard technology to view website									
Use laptops to research information									