

Grade Level:	K
Class Title:	Science
Subject:	Science
Class Description:	<p><i>The description below lists the elements a comprehensive Science class typically includes at this age. Please amend it to reflect what you intend to address this school year.</i></p> <p>In this class (student) will gain knowledge/fluency about whole-part relationships. This class will help channel (student)'s natural curiosity to become a better questioner, observer, and thinker. (Student) will develop the ability to use simple tools and to solve problems in creative ways. (He/She) will also gain insights about the position and motion of objects, the properties of liquids and solids and learn about how time and motion affect the objects they see in the sky. Student will complete a Classroom Based Assessment that will be decided on between the consultant and the family.</p> <p>Must include this statement: This class will work toward one or more EALRs. This will be a year-long class, spanning the 2012-2013 school year.</p>
Learning Materials:	<p><i>List all textbooks, workbooks, lessons, manipulatives, workshops, etc., that will be used on a regular basis to accomplish the goals of this course. Please indicate which materials being paid for by HomeLink and which are provided by other sources.</i></p> <p>Textbook (provided by _____)</p> <p>Workbook (provided by _____)</p> <p>Manipulatives/Games (provided by _____)</p> <p>HomeLink workshops (title/semester) (provided by HomeLink)</p>
Learning Goals/ Performance Objectives:	<p><i>What do you want your child to know (goals) and/or be able to do (objectives) by the end of this course? The following list is what students in Washington's traditional classrooms are expected to learn during K/1st grades in this subject. Please choose the ones <u>you</u> intend to address during this school year.</i></p> <p>EALR 1: Systems</p> <p>Name at least five different parts, given an illustration of a whole object, plant, or animal.</p> <p>Compare a part of an object with the whole object, correctly using the words "whole" and "part."</p> <p>Identify which of several common objects may be taken apart and put back together without damaging them (e.g., a jigsaw puzzle) and which objects cannot be taken apart without damaging them (e.g., books, pencils, plants, and animals).</p> <p>EALR 2: Inquiry</p> <p>Ask questions about objects, organisms, and events in their environment.</p> <p>Follow up a question by looking for an answer through students' own activities (e.g., making observations or trying things out) rather than only asking an adult to answer the question.</p> <p>Observe patterns and relationships in the natural world, and record observations in a table or picture graph.</p> <p>Given a child's toy that is a model of an object found in the real world, explain how it is like and unlike the object it represents.</p> <p>Describe patterns of data recorded, using tallies, tables, picture graphs, or bar-type</p>

graphs.

Participate in a discussion of how the recorded data (evidence) might help to explain the observations.

Report observations of simple investigations, using drawings and simple sentences. Listen to and use observations (evidence) made by other students.

State verbally or in writing a need to repeat observations (evidence) to be certain the results are more reliable.

Record observations (evidence) honestly and accurately.

EALR 3: Application

Use simple tools and materials to solve a simple problem (e.g., make a paper or cardboard box to hold seeds so they won't get lost).

Choose a material to meet a specific need (e.g., cardboard is better than paper for making a box that will stand up by itself) and explain why that material was chosen.

Develop two possible solutions to solve a simple problem (e.g., design a napping place for a favorite stuffed animal; decide on the best food to eat for lunch).

Apply the abilities of counting, measuring, and classifying to solving a problem (e.g., Is that enclosure big enough for a pet to stand up in? What types of food can it eat? How much food should I put into the enclosure for my pet?).

EALR 4: Physical Science

Use common terms so that all observers can agree on the position of an object in relation to another object (e.g., describe whether the teacher's desk is in front of the room, at the side, or in the back; say whether the top of the school's flagpole is higher or lower than the roof).

Demonstrate motion by moving an object or a part of a student's body and explain that motion means a change in position.

Respond to a request to move an object (e.g., toy wagon, doll, or book) by pushing or pulling it.

When asked to move the object farther, respond by pushing or pulling it more strongly. Explain that a push or a pull is a force.

Distinguish a force that acts by touching it with an object (e.g., by pushing or pulling) from a force that can act without touching (e.g., the attraction between a magnet and a steel paper clip).

Predict the shape that water will take in a variety of different containers.

Predict that frozen water (e.g., ice) will retain its shape when moved among containers of different shapes (e.g., ice cubes in a tray).

Given several substances, sort them into those that are liquid and those that are solid.

EALR 4: Earth and Space Science

Observe and communicate the many things that can be seen in the sky that change minute by minute (e.g., birds, airplanes, and clouds) and those that change their shape or position in observable patterns day after day (e.g., apparent shape of the moon).

Compare the position of the Sun in the sky in the morning with its position in the sky at midday and in the afternoon.

Observe the Moon during different times of the day and month, and draw its apparent shape.

Sort objects into two groups: natural and human-made.

Describe Earth objects using appropriate terms, such as hard, soft, dry, wet, heavy, and light, to describe these materials.

Sort Earth objects by one observable property (e.g., rocks by size or color).

Compare Earth objects by at least two properties (e.g., first compare rocks by size, then by color).

Observe and describe objects made of more than one Earth material (e.g., certain rocks and soil).

EALR 4: Life Science

Identify the external parts of a human body (e.g., head, hands, feet, knees, and elbows).

Identify the external parts of different plants and animals (e.g., legs on an insect, flowers, stems, and roots on many plants, feathers on birds, scales on fish, eyes and ears on many animals).

Observe how parts of a plant or animal look under a magnifier and draw or use words to describe them (e.g., a single hair, the leg of an insect, a fingerprint).

Compare how different animals use the same body parts for different purposes (e.g., humans use their tongues to taste, while snakes use their tongues to smell).

Compare how different animals obtain food and water (e.g., a squirrel hunts for nuts, a pet dog eats prepared food and drinks water from a bowl or puddle, many birds and insects find nectar in flowers, which contain food and water, people may grow food in gardens and many shop for food in stores and get water from the tap).

Explain that most plants get water from soil through their roots and that they gather light through their leaves.

Investigate an area near their home or school where many different plants and animals live together (e.g., a lawn, a vacant lot, a wooded park, a flower bed) and describe the different plants and animals found there.

Identify the characteristics of a habitat that enable the habitat to support the growth of many different plants and animals (e.g., have trees to provide nesting places for birds

and squirrels, pond water for tadpoles and frogs, blackberry bushes for rabbits to hide in).

List two or more things that humans do that might harm plants and animals in a given habitat (e.g., throwing litter in a pond might cause difficulty for water birds and fish to find food or might poison the plants and animals that live there).

Communicate ways that humans protect habitats and/or improve conditions for the growth of the plants and animals that live there (e.g., reuse or recycle products to avoid littering).

Use logical rules to sort objects into two groups, those that are alive and those that are not.

Given a list, illustrations, or actual plants or animals, classify them as plants or animals

Describe several external features and behaviors of animals that can be used to classify them (e.g., size, color, shape of body parts).

Describe several external features of plants that can be used to classify them (e.g., size, color, kinds of seeds, shapes, or texture of plant parts).

Give examples to illustrate how pairs of plants and/or animals are similar to and different from each other (e.g., cats and dogs both have four legs, but many dogs have longer snouts than cats).

What specific activities will the student be doing each day/week/month to accomplish the goals of this course and complete the curricula? The easiest way is to divide up each curriculum according to the number of days or weeks or months in the school year. For example:

- [Student's name] will complete (one workbook page/experiment) per (day/week) from each (workbook/unit) (OR "student will complete one unit per month from each curricula")
- [Student's name] will also attend the _____ weekly workshop at HomeLink (semester).
- [Student's name] will use the scientific process to ask questions, explore facts and determine answers.
- [Student's name] will make presentations/share conclusions about his/her projects.
- Activities will involve exploring, examining and explaining data in an age/grade appropriate manner in a weekly journal.

These examples will need to be specific to the chosen curricula.

Must include the pace at which the student will move through each of the materials in order to finish them by the end of the school year.

Must include this statement: Moving through the materials at this pace will ensure completion by the end of the year and accomplish the goals of the course.

**Learning
Activities:**

<p>Progress Criteria/ Methods of Evaluation:</p>	<p><i>List the methods by which you will evaluate your student's mastery of the material. Answer the questions: "How will you know they have learned the material?" and "What will you do if they have not?" Include the level of accuracy you expect them to achieve (80% is generally considered to be indicative of mastery). For example:</i></p> <p>[Student's name] will complete 7-10 activities monthly with a mastery of 80% of the concepts studied. Student's conceptual mastery will be determined based on weekly journal entries, project worksheets and parent observation. Student will maintain a portfolio containing weekly work samples and any written assessments to present to consultant at face-to-face meetings at the end of each semester. Every month progress will be determined by the HQ teacher of this course based on the question: "Will the student master his performance objectives by the end of the course?" The HQ teacher will take into consideration ALL factors (including student life situation, effort, attitude, etc.) when making this professional judgment. Each month, the student will be expected to master approximately 10% of the yearly goals for this class (or 20% of semester goals), with all of the goals being met by the end of the year (or semester.) The mastery of any one goal may be an on-going process and some goals may overlap or be difficult to measure. Evaluation of progress toward the mastery of the goals will be based on monthly completion (or progress toward completion) of the learning activities that are designed to provide the means to achieving the goals of the learning plan. With that said, monthly progress can still be marked satisfactory based on the professional judgment of the teacher that the student will complete the goals of the course.</p>
<p>Estimated Weekly Hr:</p>	<p><i>The typical number of hours spent on this subject at this age in a traditional classroom is 5 hours.</i></p>
<p>CEDARS Code:</p>	<p>Must include this number:</p>