

Second Grade Science Grade Level Content Expectations (GLCEs) v.12.07

Content Statement / Content Expectation	Words to Know	Know –Nouns-Content	Be Able to Do –Verbs-Skills and Processes
SCIENCE PROCESSES: Inquiry Process			
<i>S.IP.E.1 Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.</i>			
S.IP.02.11 Make purposeful observation of the natural world using the appropriate senses.	Observation Senses	Natural World Senses	Observe Use senses
S.IP.02.12 Generate questions based on observations.	Questions	Question	Generate
S.IP.02.13 Plan and conduct simple investigations.	Investigation	Investigation	Plan Conduct
S.IP.02.14 Manipulate simple tools (ruler, meter stick, measuring cups, hand lens, thermometer, balance) that aid observation and data collection.	Data Simple tools	Measurement Simple tools	Manipulate tools
S.IP.02.15 Make accurate measurements with appropriate units (meter, centimeter) for the measurement tool.	Accurate Units	Tools Unit	Measure
S.IP.02.16 Construct simple charts and graphs from data and observations.	Charts/graphs Data Construct	Charts Graphs	Construct
SCIENCE PROCESSES: Inquiry Analysis and Communication			
<i>S.IA.E.1 Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.</i>			
S.IA.02.12 Share ideas about science through purposeful conversation.	Conversation	Ideas	Share
S.IA.02.13 Communicate and present findings of observations.	Communicate Present findings	Observations	Communicate Present
S.IA.02.14 Develop strategies and skills for information gathering and problem solving (books, internet, ask an expert, observation, investigation, technology tools).	Information resources	Strategies Skills	Gather
SCIENCE PROCESSES: Reflection and Social Implications			
<i>S.RS.E.1 Reflecting knowledge is the application of scientific knowledge to new and different situations. Reflecting knowledge requires careful analysis of evidence that guides decision making and the application of science throughout history and within society.</i>			
S.RS.02.11 Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.		Scientific concepts	Demonstrate
S.RS.02.13 Recognize that when a science investigation is done the way it was done before, similar results are expected.	Investigate Results	Investigation	Recognize
S.RS.02.15 Use evidence when communicating scientific ideas.	Evidence	Ideas	Communicate
S.RS.02.16 Identify technology used in everyday life.	Technology	Technology	Identify

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PHYSICAL SCIENCE: Properties of Matter			
<i>P.PM.E.1 Physical Properties- All objects and substances have physical properties that can be measured.</i>			
P.PM.02.12 Describe objects and substances according to their properties (color, size, shape, texture, hardness, liquid or solid, sinking or floating).	Properties Substances	Properties Objects	Describe
P.PM.02.13 Measure the length of objects using rulers (centimeters) and meter sticks (meters).	Length Units of measurement	Objects Length	Measure
P.PM.02.14 Measure the volume of liquids using common measuring tools (measuring cups, measuring spoons).	Volume	Volume Liquids	Measure
P.PM.02.15 Compare the weight of objects using balances.	Weight Balances	Weight Objects	Compare
<i>P.PM.E.4 Material Composition- Some objects are composed of a single substance, while other objects are composed of more than one substance.</i>			
P.PM.02.41 Classify objects as single substances (ice, silver, sugar, salt) or mixtures (salt and pepper, mixed dry beans).	Single substances Mixtures Classify	Objects	Classify
LIFE SCIENCE: Organization of Living Things			
<i>L.OL.E.1 Life Requirements- Organisms have basic needs. Animals and plants need air, water, and food. Plants also require light. Plants and animals use food as a source of energy and as a source of building material for growth and repair.</i>			
L.OL.02.14 Identify the needs of plants.	Energy organism	Plant needs	Identify
<i>L.OL.E.2 Life Cycles- Plants and animals have life cycles. Both plants and animals begin life and develop into adults, reproduce, and eventually die. The details of this life cycle are different for different organisms.</i>			
L.OL.02.22 Describe the life cycle of familiar flowering plants including the following stages: seed, plant, flower, and fruit.	Life cycle Stages seed plant flower fruit	Life cycle	describe
Heredity			
<i>L.HE.E.1 Observable Characteristics- Plants and animals share many, but not all, characteristics of their parents.</i>			
L.HE.02.13 Identify characteristics of plants (for example: leaf shape, flower type, color, size) that are passed on from parents to young.	Characteristics heredity	Characteristics	identify
EARTH SCIENCE: Solid Earth			
<i>E.SE.E.2 Surface Changes- The surface of Earth changes. Some changes are due to slow processes, such as erosion and weathering, and some changes are due to rapid processes, such as landslides, volcanic eruptions, and earthquakes.</i>			
E.SE.02.21 Describe the major landforms of the surface of the Earth (mountains, plains, plateaus, valleys, hills).	Landforms Surface mountains	Landforms	Describe

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	plains plateaus valleys hills		
Fluid Earth			
<i>E.FE.E.1 Water- Water is a natural resource and is found under the ground, on the surface of the earth, and in the sky. It exists in three states (liquid, solid, gas) and can go back and forth from one form to another.</i>			
E.FE.02.11 Identify water sources (wells, springs, lakes, rivers, oceans).	Natural resources water sources	Water sources	identify
E.FE.02.12 Identify household uses of water (drinking, cleaning, food preparation).		Household use	identify
E.FE.02.13 Describe the properties (visible, flowing, melting, dew) of water as a liquid (lakes, rivers, streams, oceans).	Properties visible flowing melting dew liquid	Properties	Describe
E.FE.02.14 Describe the properties (hard, visible, freezing, ice) of water as a solid (ice, snow, iceberg, sleet, hail).	Solids hard freezing ice sleet hail	Properties	Describe
<i>E.FE.E.2 Water Movement- Water moves in predictable patterns.</i>			
E.FE.02.21 Describe how rain collects on the surface of the Earth and flows downhill into bodies of water (streams, rivers, lakes, oceans) or into the ground.	Water cycle Water vapor gas precipitation condensation evaporation ground water	Water cycle	describe
E.FE.02.22 Describe the major bodies of water on the Earth's surface (lakes, ponds, oceans, rivers, streams).	Bodies of water lakes ponds oceans rivers streams	Bodies of water	describe