

1st Grade

Shining the Light on Fairytale & Fables

Eco-Energy for Schools



Unit Overview	
Unit Title	Shining the Light on Fairytale & Fables
Unit Summary	The focus of this unit will be to demonstrate the importance of the sun's energy through literary examples. Fairytale and fable will guide the student's learning. The students will learn about a variety of literature, summarizing text, characters, setting, theme, chronological order, speaking and listening skills, the sun's energy, the body's need for energy, plant growth, interdependence in ecosystems, shape identification, addition, word problems, number lines, goods and products, consumers and producers, and map components. The students will investigate the effects of the sun in a variety of hands-on projects. The culminating event for this unit will be the design and creation of model solar panel pavilions and wind turbines. The overall goal for this unit is to excite students about exploring nature and learning how powerful energy can be found in nature.
Subject Area Strands	Science – Inquiry, Technology and Engineering, Cells, Interdependence, Flow of Matter and Energy, The Universe, Energy, Motion Math – Operations and Algebraic Thinking ELA – Reading Strands for Literature: Key Ideas and Details and Integration of Knowledge and Ideas Reading Strands for Informational Text: Integration of Knowledge and Ideas Speaking and Listening: Comprehension and Collaboration & Presentation of Knowledge and Ideas Social Studies – Economics and Geography
Grade Level	1 st Grade
Appropriate Time	10 days

Lesson Foundation

Common Core Standards	
Targeted Content Standards	Mathematics <u>Operations and Algebraic Thinking 1.OA</u> <ul style="list-style-type: none">• Represent and solve problems involving addition and subtraction.<ol style="list-style-type: none">1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.• Understand and apply properties of operations and the relationship between addition and subtraction.<ol style="list-style-type: none">3. Apply properties of operations as strategies to add and subtract.3 Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)• Add and subtract within 20.<ol style="list-style-type: none">5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums.
	English / Language Arts <u>Reading Strands for Literature</u> <p>Key Ideas and Details</p> <ol style="list-style-type: none">1. Ask and answer questions about key details in a text.2. Describe characters, settings, and major events in a story, using key details. <p>Integration of Knowledge and Ideas</p> <ol style="list-style-type: none">7. Use illustrations and details in a story to describe the characters, setting, or events.9. Compare and contrast the adventures and experiences of characters in stories. <u>Reading Strands for Informational Text</u> <ol style="list-style-type: none">7. Use the illustrations and details in a text to describe its key ideas. <u>Speaking and Listening</u> <p>Comprehension and Collaboration</p> <ol style="list-style-type: none">1. Participate in collaborative conversations with diverse patterns about grade level topics and texts with peers and adult sin

		<p>small and larger groups.</p> <ol style="list-style-type: none"> 2. Ask and answer questions about key details in a text read aloud or information presented orally or through other media. 3. Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood. <p>Presentation of Knowledge and Ideas</p> <ol style="list-style-type: none"> 4. Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly. 5. Add drawing or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
TN Standards		
	Science	<ul style="list-style-type: none"> • GLE 0107.Inq.1 Observe the world of familiar objects using the senses and tools. • GLE 0107.Inq.2 Ask questions, make logical predictions, plan investigations, and represent data. • GLE 0107.Inq.3 Explain the data from an investigation. • GLE 0107.T/E.1 Recognize that both natural materials and human-made tools have specific characteristics that determine their use. • GLE 0107.T/E.2 Apply engineering design and creative thinking to solve practical problems. • GLE 0107.1.1 Recognize that living things have parts that work together. • GLE 0107.1.2 Use tools to examine major body parts and plant structures. • GLE 0107.3.1 Recognize that plants and animals are living things that grow and change over time. • GLE 0107.6.1 Compare and describe features of the day and night sky. • GLE 0107.6.2 Realize that the sun can only be seen during the day, while the moon can be seen at night and sometimes during the day. • GLE 0107.10.1 Investigate the effect of the sun on land, water, and air. • GLE 0107.11.1 Investigate how forces (push, pull) can move an object or change its direction.
	Social Studies	<p>Economics</p> <ol style="list-style-type: none"> 1.8 Give examples of products (goods) that people buy and use. 1.9 Give examples of services (producers) that people provide. 1.10 Explain differences between goods and services and describe how people are consumers and producers of goods and services. 1.14 Examine and analyze economic concepts including basic needs vs. wants and the factors that could influence a person to use money or save money.

Geography

- 1.17 Identify the shapes of Tennessee and the United States on maps and globes.
- 1.18 Use cardinal directions on maps.
- 1.21 Describe how the location of his/her community, climate, and physical surroundings affect the way people live, including their food, clothing, shelter, transportation and recreation.
- 1.22 Construct a map showing the Atlantic Ocean, Pacific Ocean, Washington D.C., Memphis, Nashville, Knoxville, Chattanooga, Mississippi River, Cumberland River, Tennessee River, Great Smoky Mountains, Rocky Mountains, Center Hill Lake, Norris Lake, Reelfoot Lake, and Clingmans Dome.
- 1.24 Summarize in their own words, that a map is a representation of a space, such as the classroom, the school, the neighborhood, town, city, state, country or world.

Next Generation Science Standards

1-LS1 From Molecules to Organisms: Structures and Processes

Students who demonstrate understanding can:

- 1-LS1-1.
Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.

1-LS3 Heredity: Inheritance and Variation of Traits

Students who demonstrate understanding can:

- 1-LS3-1.
Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.

1-ESS1 Earth's Place in the Universe

Students who demonstrate understanding can:

- 1-ESS1-1.
Use observations of the sun, moon, and stars to describe patterns that can be predicted. 1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year.

Lesson Foundation – Big Ideas & Cross-Curricular Connections

Big Ideas

- How is the sun a source of energy?
- Why do we need the sun?

Cross-Curricular Connections

The students will incorporate multiple content areas to complete the following projects:

- Toolbox Investigation
- Bug Collection Hunt
- Push and Pull Lab Activity
- Building Materials Observations
- Three Little Pigs Model Houses Construction
- Health Body Collage
- Health Assessment Stations
- Field Day Project

- My Life Timeline Creation and Presentation
- Model Flowers
- Roots and Water Lab Activity
- Growth and Light Lab Activity
- Field Lab – Sun’s Effect on the Environment: Data Chart and Magnifying glasses
- Solar Panel Pavilion Model and Wind Turbine Model

Lesson Foundation – Essential Questions

- What is a fairytale?
- What is a fable?
- Why are tools used to meet needs?
- How do we test tools and objects?
- Why is the Sun’s energy important?
- How do objects move?
- What do plants need to grow?

Lesson Foundation – Student Objectives

Going Beyond

- I can describe how tools, technology, and inventions help to answer questions and solve problems.
- I can explain how different inventions and technologies impact people and other living organisms.
- I can recognize that plants and animals are made up of smaller parts and use food, water, and air to survive.
- I can design a new living thing and explain how it would acquire food, water, and air.
- I can investigate living things found in different places.
- I can identify basic ways that plants and animals depend on each other.
- I can recognize that animals eat plants or other animals for food.
- I can describe the habitat of a particular organism based on its food, water, and air requirements.
- I can realize that the sun is our nearest star and that its position in the sky appears to change.
- I can make observations of changes in the moon’s appearance over time.

Mastery

- I can observe the world of familiar objects using the senses and tools.
- I can ask questions, make logical predictions, plan investigations, and represent data.
- I can explain the data from an investigation.
- I can recognize that both natural materials and human-made tools have specific characteristics that determine their use.
- I can use tools to measure materials and construct simple products.
- I can examine major body parts and plant structures.

	<ul style="list-style-type: none"> • I can identify the basic characteristics of living things. • I can sort and classify a variety of living and non-living materials based on their characteristics. • I can recognize that plants and animals are living things that grow and change over time. • I can conduct investigations and record data about the growth of different plants under varying conditions. • I can describe what plants and animals need in order to grow and remain healthy. • I can compare and describe features of the day and night sky. • I can realize that the sun can only be seen during the day, while the moon can be seen at night and sometimes during the day. • I can create a chart of things that can be observed in the day and night sky. • I can identify objects in the sky and describe their observable similarities and differences. • I can investigate the effect of the sun on land, water, and air. • I can predict and determine what happens over the course of a school day when containers of sand, soil, and water with thermometers are placed in a sunny window. • I can investigate how forces (push, pull) can move an object or change its direction. • I can use familiar objects to explore how the movement can be changed.
<p>Building the Basics</p>	<ul style="list-style-type: none"> • I can use senses and simple tools to make observations. • I can communicate interest in simple phenomena and plan for simple investigations. • I can communicate understanding of simple data using age-appropriate vocabulary. • I can collect, discuss, and communicate findings from a variety of investigations. • I can take apart an object to describe how the parts work together. • I can explain how that people interact with their environment through their senses. • I can categorize objects or images of objects as living or non-living according to their characteristics. • I can use the senses to investigate and describe an object. • I can recognize that living things require water, food, and air. • I can observe plants and animals and make records of their similarities and differences. • I can record information about the care, feeding, and maintenance of a living thing. • I can explain how different objects that are visible in the day and night sky. • I can create a Venn diagram to compare the objects that can be seen in the day and night sky. • I can identify the sun as the source of heat and light. • I can investigate the effect of the sun on a variety of materials. • I can explore different ways that objects move.

	<ul style="list-style-type: none"> • I can use a variety of objects to demonstrate different types of movement. (e.g., straight line/ zigzag, backwards/ forward, side to side, in circles, fast/ slow).
Lesson Foundations – Prerequisite Content & Skills	
Content Knowledge	<ul style="list-style-type: none"> • I can identify my five senses. • I can illustrate a plan. • I know that a plan has steps (first, second, etc.) • I can count to twenty. • I can determine that an object is made of many pieces. • I can identify the job or use of an object or person. • I can identify distinguishing characteristics of an object in order to group or classify items. • I can verbally list items that I need each day. • I know the difference between plants and animals. • I can provide examples of plants and animals. • I can explain similarities and differences. • I can provide examples of items or pieces of an item that are similar. • I can provide examples of items or pieces of an item that are different. • I can identify when it is daytime. • I can identify when it is nighttime. • I can identify shapes. • I can identify sizes of items. • I can explain how heat and light makes me feel. • I can identify the sun. • I can identify the following movements after being shown an example - straight line/ zigzag, backwards/ forward, side to side, in circles, fast/ slow.
Skills	<ul style="list-style-type: none"> • I can use my senses to collect information about my surroundings. • I can use simple tools appropriately. • I can use simple tools safely. • I can communicate with my teacher and classroom assistants. • I can communication with other students. • I can write numbers (zero through 20). • I can collect items when instructed. • I can discuss when instructed and listen when need during age appropriate time lengths. • I can categorize objects or images of objects. • I can record information. • I can draw shapes. • I can move objects as directed.
Unit Anchor Text	
Unit Anchor Text	<ul style="list-style-type: none"> • The Three Little Pigs • The Tortoise and the Hare • Jack and the Beanstalk

Unit Companion Texts

Informational Text(s)

- Tools
- The Sun's Energy
- Day and Night

Assessments

Formative Assessments

- Toolbox Investigation
- Shapes Review
- Science Toolbox Reading Activity
- Dinner Tools and Construction Activity
- Push and Pull Lab Activity
- Math Word Problem – Addition Review
- The Tortoise and the Hare – Reading Activity
- Collages – Body's Needs for Nutrition and Strength
- Jack and the Beanstalk – Reading Activity
- Sequencing Birthdays
- Flower Model

Summative Assessments

- The Three Little Pigs – Review Activity
- Materials Investigations Activity
- Literature Components Activity – The Tortoise and the Hare
- Field Day Project
- Jack and the Beanstalk – Review Activity
- My Life Timeline Project & Presentation
- Water and Roots Lab
- Energy and Power – Review Activity
- STEM Culminating Event – Solar Panel Models and Wind Turbine Models
- Fairytales and Fables Dress-up Day Presentation

Writing Assessments

- Toolbox Investigation
- Push and Pull Lab Activity
- Goods and Products Flow Chart
- Building Project
- Field Day Project – Map Creation
- Plant and Animal Needs – Chart
- Growth and Light Lab Activity
- Graphic Organizer Mobil
- Venn diagram
- Day and Night Sky Comparison
- Field Lab – Sun's Effect on the Environment
- Past, Present, and Future Foldable
- The Flintstones Foldable

Unit Vocabulary

Term	Definition
Illustrate	To furnish (a book, magazine, etc.) with drawings, pictures, or other artwork intended for explanation, elucidation, or adornment; To make clear or intelligible, as by examples or analogies; exemplify.
Sequence	The following of one thing after another; succession.
Question	A sentence in an interrogative form, addressed to someone in order to get information in reply; A problem for discussion or under discussion; a matter for investigation.
Summarize	To make a summary of; state or express in a concise form.
Information	Knowledge communicated or received concerning a particular fact or circumstance; news: <i>information concerning a crime</i> ; Knowledge gained through study, communication, research, instruction, etc.; factual data: <i>His wealth of general information is amazing.</i>
Data	Individual facts, statistics, or items of information: <i>These data represent the results of our analyses. Data are entered by terminal for immediate processing by the computer.</i>
Estimate	To form an approximate judgment or opinion regarding the worth, amount, size, weight, etc., of; calculate approximately: <i>to estimate the cost of a college education.</i>
Graph	A diagram representing a system of connections or interrelations among two or more things by a number of distinctive dots, lines, bars, etc.; <i>Mathematics</i> : a series of points, discrete or continuous, as in forming a curve or surface, each of which represents a value of a given function; Also called linear graph. A network of lines connecting points.
Length	The longest extent of anything as measured from end to end: <i>the length of a river</i> ; The measure of the greatest dimension of a plane or solid figure.
Measurement	The act of measuring; A measured dimension; Extent, size, etc., ascertained by measuring.
Month	Also called calendar month. Any of the twelve parts, as January or February, into which the calendar year is divided.
Ruler	A strip of wood, metal, or other material having a straight edge and usually marked off in inches or centimeters, used for drawing lines, measuring, etc.
Year	A period of 365 or 366 days, in the Gregorian calendar, divided into 12 calendar months, now reckoned as beginning Jan. 1 and ending Dec. 31
Environment	The aggregate of surrounding things, conditions, or influences; surroundings; milieu; the air, water, minerals, organisms, and all other external factors surrounding and affecting a given organism at any time.
Heat	The state of a body perceived as having or generating a relatively high degree of warmth; the condition or quality of being hot: <i>the heat of an oven</i> ; the degree of hotness; temperature: <i>moderate heat.</i>
Insect	Any animal of the class Insect, comprising small, air-breathing arthropods having the body

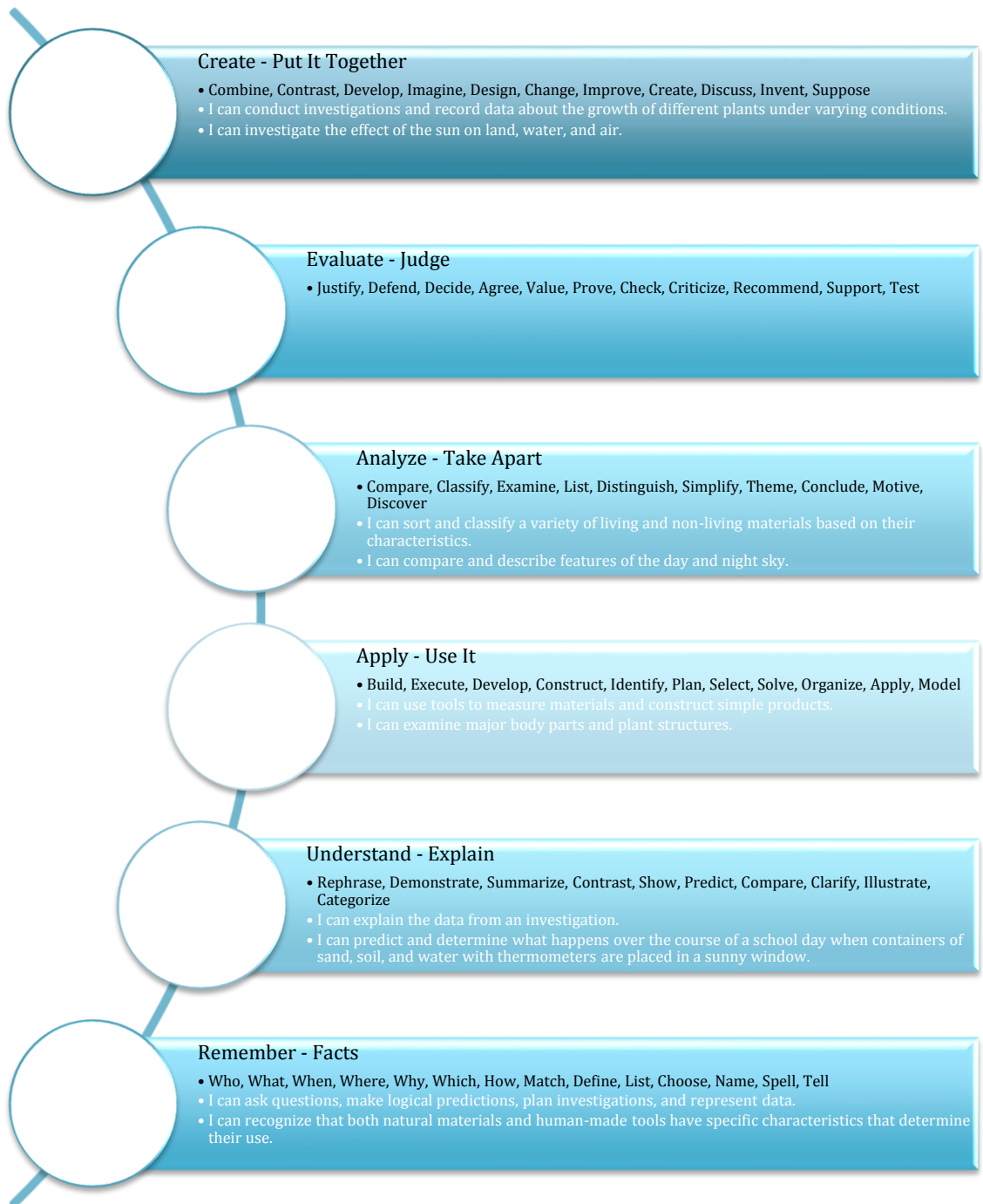
	divided into three parts (head, thorax, and abdomen), and having three pairs of legs and usually two pairs of wings.
Investigate	To examine, study, or inquire into systematically; search or examine into the particulars of; examine in detail.
Light	Something that makes things visible or affords illumination: <i>All colors depend on light.</i>
Location	A place of settlement, activity, or residence: <i>This town is a good location for a young doctor</i> ; a place or situation occupied: <i>a house in a fine location</i> ; a tract of land of designated situation or limits: <i>a mining location.</i>
Plant	Any member of the kingdom Plantae, comprising multicellular organisms that typically produce their own food from inorganic matter by the process of <u>photosynthesis</u> and that have more or less <u>rigid cell</u> walls containing cellulose, including vascular plants, mosses, liverworts, and hornworts: some classification schemes may include <u>fungi</u> , <u>algae</u> , bacteria, blue-green algae, and certain single-celled eukaryotes that have plantlike qualities, as rigid cell walls or photosynthesis.
Push	To press upon or against (a thing) with <u>force</u> in order to move it away; to move (something) in a specified way by exerting force; shove; drive: <i>to push something aside</i> ; <i>to push the door open.</i>
Pull	To draw or haul toward oneself or itself, in a particular direction, or into a particular position: <i>to pull a sled up a hill</i> ; to draw or tug at with <u>force</u> .
Past	Gone by or elapsed in time.
Present	Being, existing, or occurring at this time or now; <u>current</u> : <i>the present ruler</i> ; at this time; at hand; immediate: <i>articles for present use.</i>
Future	Time that is to be or come hereafter; something that <u>will</u> exist or happen in time to come: <i>The future is rooted in the past.</i>
Responsibilities	The state or fact of being <u>responsible</u> , answerable, or accountable for something within one's power, <u>control</u> , or management.
Technology	The branch of knowledge that deals with the creation and use of technical means and their interrelation with life, society, and the <u>environment</u> , drawing upon such subjects as industrial arts, engineering, applied science, and pure science.

Teaching the Unit

Initial Strategies	<p>Toolbox Investigation</p> <ul style="list-style-type: none"> • The teacher will bring a toolbox full of tools (or you may use a digital representation. The toolbox will include a variety of tools – kitchen tools, science tools, outdoor tools, plumbing tools, gardening tools, etc. • Students will discuss the use of four items from the toolbox at their table groups. They will discuss what they think each tool is used for and what problem it may solve. • The teacher will provide students with baggy that contain cut-outs of each tool
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	<p>presented in the toolbox, a card with each tool's use, and a card with where each tool is used. The class will review each tool and discuss their use and purpose. During the discussion the students will paste these items onto a construction paper to illustrate each tool's use and purpose. The students will cut yarn to link the tool to its purpose and use.</p> <ul style="list-style-type: none"> • As each tool is discussed the teacher will demonstrate how each tool is used. Or the teacher may choose to have students aid in the demonstration portion of the lesson. • The class will discuss the following questions: <ul style="list-style-type: none"> - Why are tools important? - How do tools help us every day? • The students will decide which tool they think is the most important tool from the toolbox. They will circle this tool on their construction paper diagram. • Each student will then present to the class why they think this tool is the most important.
<p>Direct Instruction</p>	<ul style="list-style-type: none"> • Shapes PPT • Science Tools PPT • Tools and Building PPT • Building Tools and Tests PPT • Goods and Products PPT • Maps PPT • Chronological Order PPT • What make up a Plant PPT • Energy PPT (Renewable and Non-renewable Energy) • Consumers and Producers PPT • The Sun and its uses PPT

Higher-Level Cognitive Function Strategies



**Guided
Practice &
Activities**

Lesson	Activities
1	<p>Shapes Review</p> <ul style="list-style-type: none"> - Shapes PPT - Classify the tools that were presented in the introductory activity by shape or shapes that they contain. - Provide students with a baggy that contains a second set of the tool pictures or illustrations. - Provide students with a chart to classify the cut-outs of the tools by shape. - Allow students to handle, explore, and review all the tools from the tool-box so that they may successfully complete their chart. Students will place the tool under the column for the shaper that they find in the tool or they feel that the tool most closely resembles. If the students find the shapes as part of the tool they will need to circle the part of the tool that resembles that shape. Then place this cut-out in the appropriate column. - Review the completed charts as a class. - Review shapes as a class. <p>Science Tools Book</p> <ul style="list-style-type: none"> - Read the book through once to the class as a whole. - During the first reading the teacher will point out a few tools that are discussed. - Read the book through a second time to the class as a whole. - During the second reading the students will point out tools at the end of each page. <p>Science</p> <ul style="list-style-type: none"> - Students will view a Bug Collecting Video. - The class will discuss what tools would be helpful in collecting bugs and insects. - Provide students with the tool necessary to collect bugs – butterfly net, bug cage, magnifying glass, etc. - The class will go outside to the school to collect bugs as a group. As the students are collecting bugs and insects we will discuss how the tools are helping us catch and study the insects. - The students will release the bugs prior to returning to the classroom. <p>Closure</p> <ul style="list-style-type: none"> - Classroom cleanup. - Teach students about how tools can help us every day, not just at school. The class will discuss what types of tools they use at home. - The teacher will present the cleaning tools that we use to clean our spaces. - The class will create a list of how each of the presented tools and how they make each task easier to complete. - The teacher will record this list on the board. - The students will then choose a tool and use it to help clean up the room and prepare for the end of the day. <p>Homework</p> <ul style="list-style-type: none"> - What tools did you use with your family to make dinner?

- Students will draw how they used tools to make dinner and what they made for dinner. Students will color their drawing.
- The students will work with their parents to label the components of their drawing.

2

Tools for Building

- The teacher will show video on how tools are used build things.
- The class will talk about the examples shown in the video.
- Students will ask any questions about the materials in the video.

Homework Review

- What tools did you use to build, make, construct last night's dinner?
- Teacher will display a visual (PPT, Prezi, or Keynote) that include how you made dinner. Provide your example and break the dinner into components and tools used. Then provide examples of mac and cheese and peanut butter and jelly sandwich.
- Ask students to share their labeled drawings. The students will volunteer to present in front of the class.

ELA

- Read The Three Little Pigs
- Discuss the literature components – characters, setting, theme, etc.
- Review Activity: The Three Little Pigs sequencing and characters

Science

- Building Tools and Tests PPT
- Discuss how tools can be used to build and construct things.

Push and Pull Lab Activity

- Students will learn that every force is either a push or a pull.
- They will push and pull objects in the classroom.
- Students will use a rubber ball to demonstrate motion words such as: straight, zigzag, curved, back-and-forth, etc. Raising a ramp a ball is rolled down from will demonstrate the principle that increasing force will increase the distance an object moves.

Math

- Addition Review PPT
- Word problems for adding building and construction illustrations.

Social Studies

- Good and Products PPT
- Students will practice categorizing items as goods or services in a T-chart.
- Students will then practice how goods make products using a Flow Chart.
- Discuss how goods and services are related to the ingredients and tools used to make their dinner last night.

Activity

- Materials Investigation
- Students will investigate the following materials: straw, sticks, and brick. These are the building materials from the Three

Little Pigs.

- Students will use a Bubble Map to record their observations of each building material. The teacher will cut a piece of each material for each student to apply to his or her Bubble Map.
- Students will record what they see, feel, smell, and hear when they tap the material.
- Discuss the investigation as a class and the relationship to the Three Little Pigs.

Building Project

- Students will work in groups of three.
- Invite a guest speaker to teach the students about how construction happens, the importance of building materials, and how to test the strength of building materials.
- Student groups will build model houses of each of the three styles of houses that the Little Pigs built in the story.
- Teacher will provide students with materials, flat-bottomed tubs, and templates for house construction.
- Students will test the strength of each house model and collect data for each house based on the construction material. The tubs will aid in containing the mess that may occur during the strength testing.
- Teacher will lead the class on making a graph from the data collection chart. Students will make graphs from the observation charts. Students will conclude which construction material is the best for construction and why it should be used.
- Students will create a drawing to illustrate their strength test results.
- Student groups will present their data and findings.

Math

- Students will complete math addition problems using visual aids. The students will provide visuals and the numerical data to answer the posed problem.

Closure

- The class will complete a word problem that focus on addition in a construction setting. The students will answer the question using a number line.
- The teacher will review number lines and how to use these tools when calculating addition problems.
- The class will review the answer to the word problems and the importance of tools, construction, and meeting needs.

3

What is needed to build a strong body?

- The teacher will show students examples (video or magazine ads) of “Got Milk?”
- We have investigated how to build a strong house - now I want you to draw how to build a strong body?
- Think-pair-share

ELA

- The Tortoise and the Hare
- Read the book through once to the class as a whole.
- Discuss the literature components – characters, setting, theme, etc.

- Review Activity: The Tortoise and the Hare sequencing and characters
- Read the book through a second time to the class as a whole.
- During the second reading the students will point out how the character's bodies are different. The teacher will stop at the end of each page to allow students to share any differences they have seen or heard in the story.

Social Studies

- Maps PPT
- Students will create a map of the race route from the story – The Tortoise and The Hare.

Science

- Body's needs for nutrition and strength
- Invite guest speaker for class – school nurse or nutrition worker to discuss how food can meet the body's needs for nutrition and strength
- The teacher will refer to the set for today's lesson. We have discussed milk and how it helps our bodies to be strong. What else do we eat and drink to be strong?
- Allow students to discuss and their tables. Then share a few ideas from each table.
- Students will work in pairs to create collages from magazines (or glogster if you prefer an all-digital option) of food and drink items that will build a healthy body.

Math

- Measuring Health and Strength
- Display tools used to measure health. Discuss with students how each tool is used to measure the health and strength of the human body. This may be a good time to invite a guest speaker – nurse or school nurse.
- Simple Health Assessment Stations:
 - Station topics will include: bathing, teeth brushing, cardio exercise, strength exercise, healthy nutrition plates, and sleep.
- Addition practice with visuals related to body health and strength.

Activity

- Draw what you could do to be a health person, include at least something from each station.
- Share with your table groups.

Field Day Project

- Students will participate in a class Field Day. You may want to coordinate and work with the school PE teacher to successfully complete this portion of the unit plan.
- The first step will be to create a map of the course. The teachers will need to review map skills and creation with the students.
- The goal of the field day activities is to allow students to demonstrate nutrition, health, and strength through activities.
- Students will compete in 3 legged race, egg race, and potato sack races. Students will collect data during and after each race. Therefore the students will work in teams of four and rotate so that each student can participate in the activity action.

		<p>The students will complete their data chart to include time, winner, and body parts/ areas of strength used in the race.</p> <p>Math</p> <ul style="list-style-type: none"> - Discuss data and create graphs/ illustrations to represent the activities of the field day project. <p>ELA</p> <ul style="list-style-type: none"> - Did we have any hares or tortoises in each race? - Discuss - Review the story - Discuss the moral and purpose of the story
	<p>4</p>	<p>Set:</p> <ul style="list-style-type: none"> - Just like our body needs food, exercise, water, and other items to be healthy and to stay strong, what would a plant need to grow, stay healthy and strong? - Students will discuss this question with their table group. - The teacher will instruct students to complete the provided ideas chart that provides the process necessary for living things (Do = eat, drink, energy, etc.) and requires students to complete the corresponding row for plant needs and how a plant meets these needs. - The teacher will review an example – Do = Eat, Ex = Boys and Girls need food, such as meat, vegetables, and fruit. The teacher will answer any questions and students will begin working individually. - The teacher will give students approximately 10 minutes to complete their charts. The students will then be instructed to draw a picture of their plant eating and drinking. They will need to use the information from their chart. - The students will then share their drawings and share their ideas about what plants needs to eat and drink. - The class will then watch a video on Plant Needs, Plant Parts, and Plant Growth. <p>ELA:</p> <ul style="list-style-type: none"> - Read Jack and the Beanstalk - Read the book through once to the class as a whole. - Discuss the literature components – characters, setting, theme, etc. - Review Activity: Jack and the Beanstalk summary and characters - Read the book through a second time to the class as a whole. - During the second reading the students will point out information about plants, plant parts, and plant needs. Provide each student with a colored cardstock cutout of a flower. Each time the student hears or sees a plant, plant part, or a plant need they will hold up their flower cutout. This will be a quick formative assessment to check student understanding. The teacher will stop at the end of each page to allow students to share any plant information that they have seen or heard in the story. - Reading Comprehension Activity <p>Social Studies:</p>

- Have students share their birthday aloud in class. Students will then line up in a single file line at the front of the class by birthday. Allow students to share and find their place in line. Post calendars and months in order on the board for them to see. Discuss with students how the birthdays in our class are an example of chronological order. Have students set down.
- Students will create a bar graph showing the number of birthdays per month in our class.
- Review chronological order.
- Show a chronological order PPT.
- Chronological Practice Activity
- Students will then sequence the Jack and the Beanstalk story by placing cutouts in order on construction paper with glue and yarn to show order (first to last)

Homework / Outside of Class Project:

- Students will make a picture timeline of their history. The timeline will be from each student's birth to your current age. Students will work with their parents to create the picture timeline and to make notes of any exciting, memorable events that occurred each year.
- Students will present these projects at the end of the unit.

Science:

- Video Clip: What are plants?
- Invite a guest speaker to teach students about plant parts and needs. (Example guest speaker would be an agriculture specialist or master gardener or a student's grandparent that gardens)
- Show students examples of plants (vegetables, fruits, and flowers) with their roots still attached. Review the structure of plants and the names of the components that make up plants. Allow students to explore the provided plant examples.
- What makes up a plant? PPT
- Creating a Flower Model
Students will piece together a plant by gluing cutout plant components together to form a paper flower. The students will also have cutout blocks that include the name of each component. The students will use these blocks to label their pieced together flower. Students will use glue, scissors, construction paper, and yarn to complete this task.
- Review and discuss as a class.

Water and Roots Lab

- Students will be in groups of three.
- Students will learn about plant parts and how plants acquire food and energy.
- Plants require water and nutrients to live. Students will discover how plants get nutrients and water from the soil throughout the plant. Students will conduct an experiment to determine if the water and nutrients travel in a special place in the stem, or go everywhere in the stem at once? The students will also determine if other chemicals and nutrients that mix in the water travel from the soil up the stem too, or just the water?
- Students will document their data in the provided lab

document.

- The teacher will guide students through the steps as a whole class.
- The class will discuss their experimental findings.
- The teacher will review plant parts and how plants get the nutrients need to build strong, healthy plant “bodies” that grow.

Growth and Light Lab Activity

- Students will investigate the effect of sunlight on lima bean growth.
- Students will complete a provided data chart.
- Students will place bean plants in various locations with varying amounts of light to determine lights effect on plant growth.
- The teacher will guide students through the steps as a whole class.
- The class will measure each day in the morning and in the afternoon, the class will record their data, and discuss their experimental findings. Students will record data for one week. The teacher may have an additional set that was started a week prior to show students if the time needed is not available or the weather does not cooperate.
- The teacher will review plant needs and the importance of the sun.

Graphic Organizer Mobile

- Students will create a graphic organizer style mobile that illustrates the growth process of a bean plant. The mobile will be made of construction paper, tape, yarn, glue, staples, paper plates, paper bowls, and crayons. The last piece (growth phase) of the mobile will be the beanstalk. Students will create a small model of Jack to place on the beanstalk to represent this lesson’s story.

Closure

- Students will create a Venn diagram comparing what is needed for bodies to grow, be strong, and be healthy.
- The students will compare and contrast the needs of people / animal needs and plant needs.
- The teacher will provide the Venn diagram. The teacher will make these colorful. Yellow construction paper will represent the people / animal circle. Green construction paper will represent the plant circle. The overlapping area will be a lime green construction paper. Provide students with glue for the project.
- In each circle the students must provide a list and examples from the story (The teacher will provide each student with a baggy containing cutout options for the lists and picture style cutouts for examples from the story.)
- The teacher will do an example of how to complete and fill in the Venn diagram on the board.
- The class will review the Venn diagram and the proper placement of each cutout.

Set:

- Provide students with a black piece of construction paper and a white piece of construction paper.
- The teacher will tell students that the black construction paper will represent the night sky and the white construction paper will represent the day sky. Students will draw items that they see only at night on the black construction paper and items that they only see during the day on the white construction paper.
- Allow students to complete their drawings using crayons. The teacher will play the “You are my Sunshine” song while students work.
- When the students are done drawing the teacher will then play the Pixar Day and Night short video.
- The class will discuss the video. The class will also discuss the differences in the video and what students have drawn.
- The teacher will ask students: What gives us light during the day?
- The class will discuss and the teacher will then ask: Why is the sun important? The teacher will begin to explain how the sun is important – discuss how and why plants use and need the sun.
- Students will look at the bean plant data and experimental findings to explain how the sun has affected the plant growth.

ELA:

- Day and Night Informational Text
- After reading the teacher will discuss the text details with the students.
- Students will complete a reading comprehension activity for the information text read as a whole class.
- Students will create a foldable comparing the day and the night.

Science

- Video: Sun’s importance and impact
- The Sun and its uses PPT

Field Lab – Sun’s Effect on the Environment

- The class will go outside to conduct a field study.
- The students will collect data in the provided charts.
- Students may need magnifying glasses and thermometers to explore the outdoor environment.
- Students will compare and contrast plant growth, number of animal growth, and temperature in multiple sunlight ranges – full, shade, and partial.
- Students will record data outdoors. Students will return to the class and create bar graphs of the data collected.

Math:

- Students will complete an addition review activity using visual aids and manipulatives that represent items found during the field study activity.
- Students will also work as a class to complete world problems using number lines and graphic aids.

ELA / Social Studies:

- The class will discuss cause and effect.
- The teacher will ask students what is a cause? What is an

		<p>effect?</p> <ul style="list-style-type: none"> - Ask students for examples and demonstrations of cause and effects. <p>Social Studies</p> <ul style="list-style-type: none"> - Ask students what happen to them yesterday, today, and tomorrow. - Students will draw and illustrate their responses in a foldable. - The teacher will provide examples that focus on weather, lunch menu, seasons, etc. - Past, Present, Future practice <p>ELA:</p> <ul style="list-style-type: none"> - Review Jack and the Beanstalk - The class will discuss how the sun was needed in this story. - The class will also discuss what they have learned about the sun’s effect and the light and growth bean lab experiment.
	<p>6</p>	<p>Set:</p> <ul style="list-style-type: none"> - Show students an original “The Flintstones” cartoon episode. After viewing the cartoon episode discuss the following questions with the class: <ul style="list-style-type: none"> - How did they power their car? - How do we power our cars today? - How could we power our cars in the future? - Students will complete a foldable illustrating their answers to these three questions. Students must draw and color what they think cars transportation looked like in the past, present, and future. - Students will share their ideas with the class and display their foldable at the font of the class. <p>ELA:</p> <ul style="list-style-type: none"> - The teacher will ask students the following question: What do we do every day that requires energy and power? - The teacher will record the students’ answers on the board. - The teacher will read an information text about the Sun’s Energy to the class. - After reading the teacher will discuss the text details with the students. - Students will complete a reading comprehension activity for the information text read as a whole class. <p>Math</p> <ul style="list-style-type: none"> - Students will review how to complete addition problems. - Students will complete math addition practice that uses visuals that are examples of energy and energy use. <p>Science</p> <ul style="list-style-type: none"> - Energy PPT (Renewable and Non-renewable Energy) <p>Social Studies:</p> <ul style="list-style-type: none"> - Consumers vs. Producers PPT - Comparing consumers and produces practice activity - Discuss how humans are consumers when we consume energy to meet our needs. Ask students who produces the energy? Record their ideas on the board. - Guest Speaker

		<p>The guest speaker will discuss renewable and non-renewable energy sources. The speaker will explain where the majority of people currently get their energy and the future of energy. The guest speaker will discuss solar energy, wind energy, and hydroelectric energy.</p> <p>STEM Culminating Event</p> <ul style="list-style-type: none"> - Students will work in groups of three. - Students will build model solar panels and wind turbines. - Students will discuss how these models can help produce energy in a more responsible way.
	<p>Closure</p>	<p>Fairytales and Fables Dress-up Day</p> <ul style="list-style-type: none"> - Students will come to school dressed-up as their favorite character from the stories read during this unit. - Each student will present themselves to the class. They will share the following information: <ul style="list-style-type: none"> - Who they are? - What story they are from? - Why the sun is important to their character? - Why the sun is important to their story? - After each student has shared their character information with the class the students will each create a self-portrait of themselves (in character) using the sun’s energy. Students will create their portrait using dry pasta noodles, glue, yarn, construction paper, fluffy balls, fluffy pipe cleaners, feather, and giggly eyes. - Students will also document their answers to the character presentations on their self-portrait. <ul style="list-style-type: none"> - Who they are? - What story they are from? - Why the sun is important to their character? - Why the sun is important to their story? - The students will share their portraits with their table groups. <p>My Life Timeline Presentation</p> <ul style="list-style-type: none"> - Students will also share their My Life Timelines with the class today.
<p>STEM Projects</p>	<ul style="list-style-type: none"> • Toolbox Investigation • Bug Collection Hunt • Push and Pull Lab Activity • Building Materials Observations • Three Little Pigs Model Houses Construction • Health Body Collage • Health Assessment Stations • Field Day Project • My Life Timeline Creation and Presentation • Model Flowers • Roots and Water Lab Activity • Growth and Light Lab Activity • Field Lab – Sun’s Effect on the Environment: Data Chart and Magnifying glasses 	

STEM Culminating Event	<p>STEM Culminating Event</p> <ul style="list-style-type: none"> - Students will work in groups of three. - Students will build model solar panels and wind turbines. - Students will be provided a picture of a solar panel pavilion and will be instructed to decide how they would like to build the model. The students will have Popsicle sticks, blue, construction paper, aluminum foil, crayons, and glue to build their models. - Students will discuss how these models can help produce energy in a more responsible way.
Differentiated Instruction	<p>Science Tools Book</p> <ul style="list-style-type: none"> • Depending on your classes' needs you may need to pick a different informational text based on the appropriate complexity. <p>Math – Construction Addition Word Problems</p> <ul style="list-style-type: none"> • Depending on student's needs you can add complexity or make the assignment simpler. <p>Guided Graphic Organizers with hints and prompting for completing activity.</p>
Re-teaching Strategies	<p>Math – Construction Addition Word Problems</p> <ul style="list-style-type: none"> • Depending on students' needs you can add complexity or make the assignment simpler. Students may use manipulatives to aid in their completion of the assignment. • Small group instruction and re-teaching
Enrichment Strategies	<ul style="list-style-type: none"> • The teacher will setup Enrichment Centers for each lesson. The Enrichment Center will be based on the interdisciplinary content being covered in that lesson. The Enrichment Centers will include the following: <ul style="list-style-type: none"> - Viewing Center – Videos with Content Review and Reflection - Reading Center – Fiction with Prediction - Reading Center – Informational Text with Pre-Reading Vocabulary - Reading Center – Informational Text with Reading Response Activity - Listening Center – Audio Content with Content Review and Reflection - Speaking and Presentation Center – Reader's Theater - Communication Center – Emails and Letters - Math and Science Center – Exploring Concepts through manipulatives and models - Assessment and Review Center – Creating Questions and Game Reviews - Art Center – Illustrating Content accurately with labels and numerical detail • Peer Tutoring
Independent Practice Activities	<ul style="list-style-type: none"> • Lesson 1 <ul style="list-style-type: none"> - Tools needed to construct and make dinner • Lesson 2 <ul style="list-style-type: none"> - Review Activity: The Three Little Pigs sequencing and characters - Math Word Problems – Addition regarding building and construction - Social Studies: Students will practice categorizing items as goods or services in a T-chart. Goods and Services Flow Chart. - Observation Bubble Map – Building Materials from The Three Little Pigs • Lesson 3 <ul style="list-style-type: none"> - Review Activity: The Tortoise and the Hare sequencing and characters - Math: Addition practice with visuals related to body health and strength. • Lesson 4 <ul style="list-style-type: none"> - Review Activity: Jack and the Beanstalk summary and characters - Chronological Order Activity - My Life Timeline

- Model Flowers
- Venn Diagram
- Lesson 5
 - Reading Comprehension Activity
 - Field Lab – Sun’s Effect on the Environment: Data Chart and Magnifying glasses
 - Math: Addition practice
 - Social Studies: Past, Present, Future practice
- Lesson 6
 - Reading Comprehension Activity
 - Math addition practice that uses visuals that are examples of energy and energy use.

Materials

Introduction:

Toolbox (real or digital)

Variety of tools – minimum of 28

Baggies

Cut-outs of pictures or illustration of tools presented in the tool box

Cards for each tool’s purpose

Cards for each tool’s area of use

Yarn

Scissors

Glue

Tape

Lesson 1:

Science Tools

by [Susan Canizares](#) | Betsey Chessen (illustrator)



Science: Bug collecting video, butterfly net, bug cage, magnifying glass

Closure: Classroom cleaning tools

Lesson 2:

Set: Tools for building video, Dinner construction and tools PPT (or visual display)

ELA: The Three Little Pigs, Independent Practice

Science: Building Tools and Tests PPT

Push and Pull Lab Activity:

- Cut out supplemental pictures of push and pull objects - toy trains or cars, blocks, jar, pencil, yo-yo, magnets, rubber ball, roll of masking tape, and piece of yarn for each group, rubber ball, wooden ramp or side of a box or board, 4 blocks for each group, small, pieces of paper

Materials & Resources

Math: Addition Review PPT, Word Problems
Social Studies: Good and Services PPT, T-chart activity, Flow Chart activity
Activity: Observation of Building Materials from The Three Little Pigs – Bubble Maps, straw, brick chips, and sticks
Model House Building Activity: straw, brick chips, sticks, house templates, glue, strength testing supplies, flat-bottomed tub
Math: Addition practice with visual aids, Whole group word problems

Lesson 3:

Set: Milk Ads and Commercials, Construction Paper, Crayons
ELA: The Tortoise and the Hare, Independent Practice
Social Studies: Map PPT, Construction Paper, Rulers, Pencils
Science: Collage Poster Boards, Glue, Tape, A large amount of magazines, scissors
Math: Health Assessment Stations and Activities, Addition practice with visuals related to body health and strength.
Field Day Project: Potato sacks, stop watches, soft rope, scissor, charts, crayons, eggs, plastic spoons

Lesson 4:

Set: T-chart style graphic organizer, construction paper, scissors, crayons, plant video
ELA: Jack and the Beanstalk, Review Activity
Social Studies: Chronological Order Activity, Sequencing Activity and Comprehension
Activity: Model Flowers - glue, scissors, construction paper, and yarn to complete this task.
Water and Roots Lab Activity (for each group): 4 clear 8 oz. plastic cups, Water, Red and blue food coloring, 4 similar size stalks of celery with, leaves (pale green inside stalks are best), Kitchen knife for adult partner, Metric ruler, Paper towels, Pen, Clock or timer, Vegetable peeler
Growth and Light Lab Activity: 8-ounce Styrofoam cups for planting (enough for each student to have one), lima bean seeds (one seed for each cup), potting soil (250cc (1 cup) for each pot), tap water, graduated cylinder, metric ruler, space with full sunlight, space with no sunlight, pencil, science notebook
Closure: Yellow construction paper, Green construction paper, Lime Green construction paper, cutouts, baggies, glue, tape

Lesson 5:

Set: Day and Night Pixar Short Video, Black and White construction paper, Crayons
ELA: Reading Comprehension Activity
Science: Sun's importance and impact video, The Sun and its uses PPT
Field Lab – Sun's Effect on the Environment: Data Chart and Magnifying glasses
Math: Addition practice
Social Studies: Past, Present, Future foldable and Past, Present, Future practice

Lesson 6:

Set: Flintstones cartoon episode, construction paper, foldable, crayons, scissors, glue
ELA: Sun's Energy informational text, Reading Comprehension Activity
Math: Addition practice that uses visuals that are examples of energy and energy use.
Science: Energy PPT (Renewable and Non-renewable Energy)
Social Studies: Consumers and Producers PPT, Comparing consumers and produces practice activity

STEM Culminating Event: Making wind turbine and solar panel models

	<p>Popsicle sticks, blue, construction paper, aluminum foil, crayons, and glue</p> <p>Closure: dry pasta noodles, glue, yarn, construction paper, fluffy balls, fluffy pipe cleaners, feather, and giggly eyes.</p> <p>Resources</p> <ul style="list-style-type: none">• Forces – Push and Pull Lab• Celery soaks it up – science for kids lab• Plants and How they Grow lab• Enrichment Centers information
Comments	If you have an questions you may contact: Jessica Carr at jessicawcarr@hotmail.com