

**Gilford School District
Grade 1 - Science**

Using Your Senses..... Insects (Foss Kit)		
Proficiencies	Content	Skills
How do we get to know the world around us? What is an insect? What is needed for life?	<p>five senses (see,hear, taste, smell, touch)</p> <p>characteristics of an insect (3 body parts- head, thorax, abdomen; six legs; two antennae)</p> <p>metamorphosis life cycle of butterfly, (egg, larva, pupa (chrysalis), adult) insect communities (ants, bees)</p> <p>living/non-living</p> <p>change can be slow or fast</p> <p>sun provides us with energy to live</p>	<p>Students will:</p> <p>identify the five senses that give them information about their world</p> <p>understand the life cycle of a monarch caterpillar understand that all insects have three body parts and six legs</p> <p>understand that metamorphosis means a complete change into something different compare and contrast bee communities and ant communities to Gilford community helpers (see social studies)</p> <p>understand all living organisms have identifiable characteristics and features</p> <p>understand that the sun provides the earth with heat and light</p>
Seasons and Spiders		
Proficiencies	Content	Skills
<p>What impact do the seasons have on the animals and the environment? How are spiders like insects and how are they different?</p>	<p>identify the four seasons (summer, fall, winter, spring)</p> <p>spiders are not insects</p> <p>two body parts, eight legs, carnivorous, no antennae reasons for the seasons (tilt of the Earth and sunlight) spider reports</p> <p>Artist: Jackson Pollack (Autumn Rhythm) Composer: Vivaldi (The Seasons)</p> <p>prejudice comes from not knowing</p>	<p>Students will:</p> <p>identify characteristics of each season</p> <p>understand how animals adapt in the different seasons</p> <p>compare and contrast the differences and similarities of spiders and insects Analyze and record data (i.e. graph and record precipitation each month and analyze data predicting probability or likelihood of events)</p> <p>understand that scientists study different things in science</p>

**Gilford School District
Grade 1 - Science**

	<p>weather awareness</p> <p>careers in science</p> <p>seasons' investigations</p> <p>comparisons of human characteristics with insects (alike/different)</p> <p>human growth and care</p>	<p>identify and explore different characteristics of the seasons</p> <p>understand the need for good nutrition (snacks) and hygiene (washing hands)</p> <p>Recognize that living things have a life cycle (born, grow, die)</p> <p>recognize techniques to help inhibit the spread of disease and germs (covering mouth when coughing, staying home when you have a fever, not sharing hats and combs)</p>
--	---	--

Human Growth and Nutrition

Proficiencies	Content	Skills
<p>What does my body need to stay healthy?</p> <p>How does my body change over time?</p>	<p>Food pyramid</p> <p>5-a-day plan</p> <p>Computer program on 5-a-day</p> <p>water (inside and out); rest; love; shelter; proper clothing for the season; good nutrition; healthy air (no smoking); exercise</p> <p>affects of chemicals on the body (drugs, alcohol, smoking)</p> <p>how our body changes over time (bones grow, muscles develop)</p> <p>healthy teeth (brushing regularly)</p> <p>effects of exercise</p>	<p>Students will:</p> <p>classify food into different groups (dairy, grains, proteins, vegetables, fruit, sweets, fat)</p> <p>identify proper portions of nutritious food needed every day</p> <p>understand the number of hours of sleep they need each day</p> <p>understand how to properly brush their teeth</p> <p>recognize the need to wash hands frequently (ie. after play, after bathroom, before eating)</p> <p>understand the role of germs in getting us sick</p> <p>recognize the appropriate clothing for weather conditions and be prepared for changes</p>

**Gilford School District
Grade 1 - Science**

	<p>weather (precipitation, temperature) relate to appropriate clothing to stay warm and dry</p> <p>human life cycle as compared to animals</p>	<p>recognize similarities and differences in members of their family</p> <p>recognize similarities and differences between members of their class</p> <p>understand cause and effect in the survival of the first Pilgrims to America</p>
Mammals and Winter Adaptations		
Proficiencies	Content	Skills
<p>What is a mammal?</p> <p>How do they adapt to the different seasons?</p>	<p>characteristics of a mammal (have fur or hair, specialized teeth, mothers give milk, babies born alive, warm-blooded)</p> <p>life cycles of mammals</p> <p>habitats of mammals</p> <p>hibernation, migration, semi-active, active, adaptations to cold</p> <p>kidspiration (computer) classification of mammals</p> <p>food webs and chains (predator/prey)</p> <p>mammal reports</p> <p>weather and climates</p> <p>water as a solid/as a liquid</p>	<p>Students will:</p> <p>identify the characteristics of mammals</p> <p>define the differences between mammals and other animals</p> <p>define what animals do in the winter</p> <p>understand a food web and food chain</p> <p>recognize the relationships among mammals (predators, prey animals, herbivorores, carnivores, omnivores)</p> <p>identify animal tracks</p> <p>identify personal adaptations made to the weather</p> <p>understand that even though the sun is closer to Earth in the winter the tilt of the Earth affects the impact of the energy from the sun.</p> <p>identify when water is in its solid state and when its in its liquid state (relate to ice safety)</p>

**Gilford School District
Grade 1 - Science**

Solids and Liquids (Foss Kit)		
Proficiencies	Content	Skills
What are characteristics of solids? What are liquids? How does "matter" change?	matter properties or attributes opaque translucent transparent viscous clear oobleck experiments involving changing matter from solid to liquid sink or float weather changes and conditions as related to winter	Students will: identify properties and attributes of matter (solids and liquids) recognize how solids and liquids can change from one to another define evaporation develop their vocabulary for properties of solids (opaque, viscous, translucent, transparent) relate characteristics of solids to the changes in nature (ice)
Matter and Energy (Sources of Energy)		
Proficiencies	Content	Skills
What is energy? Where do we get energy?	Earth's resources renewable/non-renewable sun, water, wind, coal, oil, nuclear, wood, food, shadows and light food chain depends upon the sun weather sound energy (vibrations) exploration of forces that cause things to move (magnets, gravity)	Students will: identify different kinds of energy sources (ie. wind, water, fossil fuel, coal, food, sun) define energy as a force needed to move things or help things survive classify energy sources as renewable or non-renewable draw conclusions about how to care for the environment define a shadow as blocked light understand that night time is really a shadow understand the importance of safety around electricity understand that higher pitches are created with shorter vibrations, longer pitches are created with longer vibrations

**Gilford School District
Grade 1 - Science**

		<p>describe and demonstrate that things close to the earth drop to the ground unless something supports them</p> <p>recognize the force of magnetism as an energy that causes things to move</p>
Study of the Solar System		
Proficiencies	Content	Skills
<p>What is the solar system and how does it impact my life on Earth?</p>	<p>planets sun</p> <p>moons and satellites comets</p> <p>asteroids meteors (meteorites)</p> <p>stars and constellations technology (Kidspiration)</p>	<p>Students will:</p> <p>recognize that light and heat the sun provides the earth is necessary for life</p> <p>Identify characteristics of sun, moon, and earth</p> <p>recognize that the sun's position in the sky changes through the seasons</p> <p>recognize the basic patterns of the moon and how it appears to change shape during the month</p> <p>Identify parts of a solar system</p>
Birds		
Proficiencies	Content	Skills
<p>What are birds?</p> <p>How is a human similar/different from a bird?</p>	<p>characteristics of birds (hollow bones, wings, warm-blooded, hatch out of eggs, beaks, two legs)</p> <p>identification of common NH birds</p> <p>Venn Diagrams</p> <p>bird adaptations to winter (migration, winter birds)</p> <p>raptors (owls)</p> <p>impact of weather on birds</p>	<p>Students will:</p> <p>identify characteristics of birds and compare them to mammals</p> <p>identify different types of common NH birds</p> <p>classify birds according to song birds, raptors, water birds</p> <p>identify different ways birds adapt to the winter season</p> <p>compare and contrast the likes and differences between birds that migrate and those that have adapted to cold climates</p>

**Gilford School District
Grade 1 - Science**

Amphibians		
Proficiencies	Content	Skills
How is an amphibian different from a bird or mammal?	<p>characteristics of amphibians (cold-blooded, metamorphosis, smooth skinned, come from eggs, start life out in the water with gills)</p> <p>Venn Diagrams definitions of cold-blooded Life Cycles differences between frogs and toads</p>	<p>Students will:</p> <p>recognize the life cycle of amphibians compare and contrast amphibians to other animals define the impact of winter on amphibians and how they adapt</p>
Habitats		
Proficiencies	Content	Skills
<p>What is a habitat and why do we need it? How are habitats alike or different?</p>	<p>Video Series in library on habitats defining habitats caring for the environment changes in the habitat and their causes food chains and webs Field Trip to Science Center</p>	<p>Students will:</p> <p>describe examples of pollution or negative affects from nature on a habitat (ie. flooding) Recognize different environments in which plants and animals live and their features Compare and contrast different habitats</p>