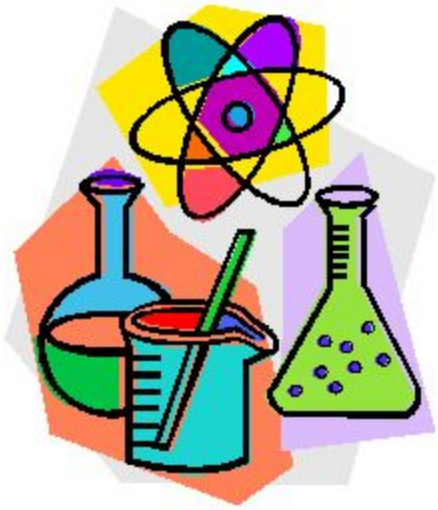


"I Can¨ Mascoma Science Grade 2 Curriculum

I Have Good SCIENTIFIC SKILLS

☐ I can observe and ask questions about scientific topics.

☐ I can explain a simple scientific model.

☐ I can plan a scientific investigation.

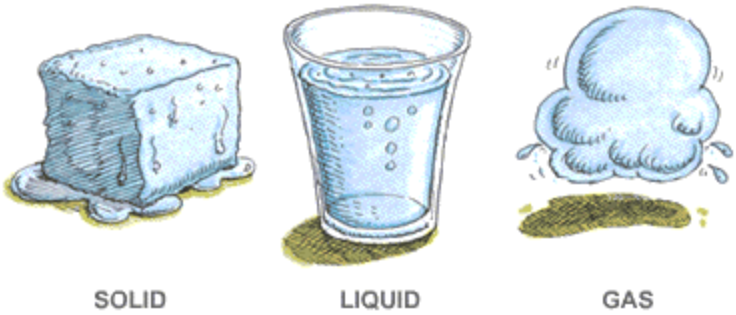
☐ I can think about data collected during a scientific investigation.

☐ I can explain the results of a scientific investigation.

I know about MATTER and its INTERACTIONS

☐ I can plan and conduct an investigation to describe and classify different objects by an observable property. (color, size, texture, hardness, flexibility, absorbency)

☐ I can create a visual representation of my findings to help me explain the results of my investigation.



☐ I can explain which material could be used to perform a job based on its properties. (i.e. a sponge is better for mopping up a water spill than a brown paper towel because the sponge in more absorbent.)

☐ I can explain the difference between a solid, a liquid, and a gas.

☐ I can explain how a state of matter can be changed by heating or cooling a substance. (snow➲water➲gas, juice➲popsicle, hot glue➲glue, etc.)

☐ I can classify objects into two categories: those that can be returned to their original state of matter after being heated or cooled, and those that cannot. (i.e. water can be returned, paper heated until it burns up cannot be returned)

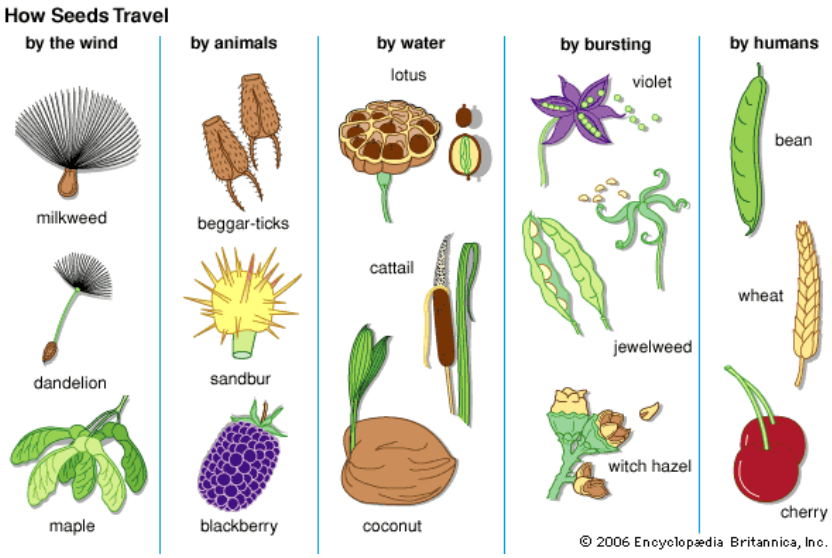
☐ I can show how small pieces can be put together to create another item. (i.e. blocks to make a wall, clay snakes to make a pot, building bricks to make a mannequin, etc.)

A little primer for my teacher:

Mascoma Standards	RI.2.1- Ask and answer such questions as who, what, when, where, why and how to demonstrate understanding of key details in a text.	RI.2.3- Describe the connection between a series of historical events, scientific ideas or concepts, or steps in a technical procedure in a text.
	RI.2.8- Describe how reasons support specific points the author makes in a text.	W.2.1-Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons to support that opinion, use linking words to connect opinions and reasons, and provide a concluding statement.
	W.2.7- Participate in shared research and writing projects.	W.2.8- Recall information from experiences or gather information from provided sources to answer a question.
	SL.2.1- Participate in collaborative conversations with peers and adults about grade 2 topics and texts in small and larger groups.	SL.2.2- Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.
	MD.1.4- Organize, represent, and interpret data with up to three categories	MD.2.10- Draw a picture or bar graph to represent a data set with up to four categories. Solve simple comparison problems using the information presented in the graph.
Vocabulary	Evidence, observable, property, visual representation, flexible, texture, absorb, matter, solid, liquid, gas, heated, cooled, change, state of matter	

I Know About ECOSYSTEMS: INTERACTIONS, ENERGY and DYNAMICS

☐ I can design an investigation with a partner to show that plants need light and water to grow.



☐ I can conduct the investigation designed with my partner to show that plants need light and water to grow.

☐ I can explain how plant structures have specific uses (i.e. roots to take in nutrients and water, leaves to take in air, etc.) .

☐ I can explain how a plant depends on wind, water, animals or humans to disperse its seeds.

☐ I can explain how a bee pollinates a flower.

☐ I can develop a simple model (diagram, drawing, physical replica, diorama, dramatization, or storyboard) that illustrates the dispersal of seeds or the pollination of a plant.

A little primer for my teacher:

Mascoma Standards	RI.2.1- Ask and answer such questions as who, what, when, where, why and how to demonstrate understanding of key details in a text.	RI.2.3- Describe the connection between a series of historical events, scientific ideas or concepts, or steps in a technical procedure in a text.
	W.2.7- Participate in shared research and writing projects.	SL.2.5- Add drawings or other visual displays to writing or recounts of experiences to clarify ideas, thoughts, and opinions.

	MP.2.1- Reason abstractly and quantitatively.	MD.2.10- Draw a picture or bar graph to represent a data set with up to four categories. Solve simple comparison problems using the information presented in the graph.
Vocabulary	Structure, survive, disperse, pollinate	

I Know About BIOLOGOCAL UNITY and DIVERSITY

☐ I can observe animals and plants in many habitats.

☐ I can select a habitat, illustrate it, and add pictures of plants and animals that live in that habitat. (desert, farm, forest, home, ocean, polar, rainforest, savannah, wetland)

☐ I can explain how plants and animals are suited for their environment. (i.e. rattlesnakes are camouflaged to blend into the desert making it difficult for them to be seen by predators –or prey! Baleen whales eat krill and there are massive amounts of krill in the ocean.)

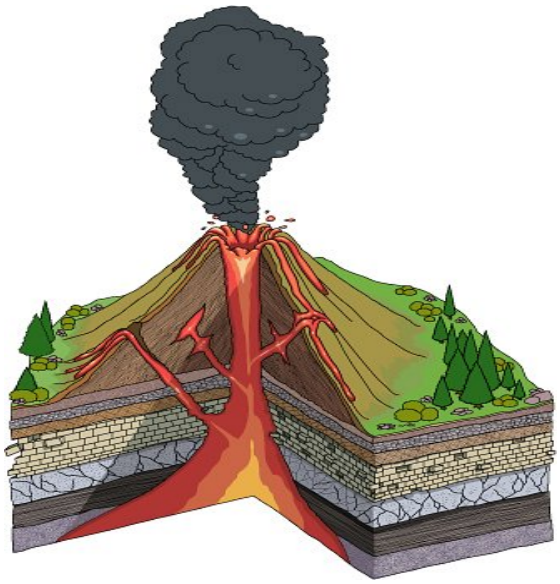
☐ I can explain how animals move on land, through water, and through air.

☐ I can develop a simple model (diagram, drawing, physical replica, diorama, dramatization, or storyboard) that illustrates suitability of a habitat for a particular animal.

A little primer for my teacher:

Mascoma Standards	RI.2.1- Ask and answer such questions as who, what, when, where, why and how to demonstrate understanding of key details in a text.	RI.2.3- Describe the connection between a series of historical events, scientific ideas or concepts, or steps in a technical procedure in a text.
	W.2.7- Participate in shared research and writing projects.	SL.2.5- Add drawings or other visual displays to writing or recounts of experiences to clarify ideas, thoughts, and opinions.
	MP.2.1- Reason abstractly and quantitatively.	MD.2.10- Draw a picture or bar graph to represent a data set with up to four categories. Solve simple comparison problems using the information presented in the graph.
Vocabulary	Habitat, food, shelter, movement, suitable, adaptable, predator, prey, desert, forest, ocean, polar, rainforest, savannah, wetland	

I Know About EARTH'S PLACE in the Universe



☐ I can gather information about natural phenomenon from several sources. (books, magazines, internet, other media)

☐ I can select and describe one natural phenomenon (volcano, earthquake, mudslide, avalanche, flood, or erosion).

☐ I can explain that some natural phenomena happen quickly and are very obvious (volcano). Others happen slowly and are not as noticeable. (rock erosion)

A little primer for my teacher:

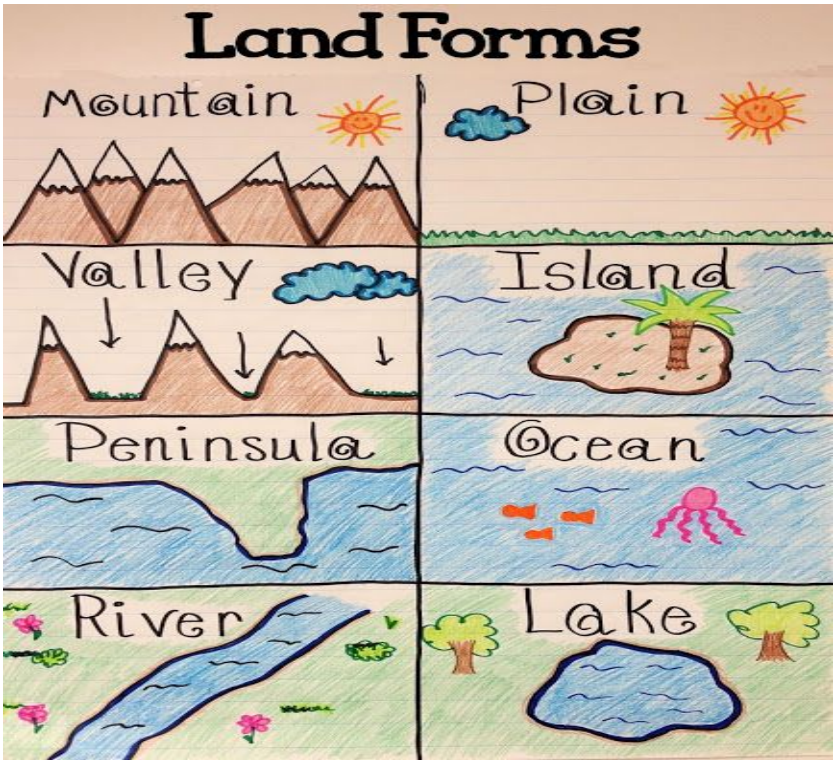
Mascoma Standards	RI.2.1- Ask and answer such questions as who, what, when, where, why and how to demonstrate understanding of key details in a text.	RI.2.3- Describe the connection between a series of historical events, scientific ideas or concepts, or steps in a technical procedure in a text.
	W.2.7- Participate in shared research and writing projects.	SL.2.5- Add drawings or other visual displays to writing or recounts of experiences to clarify ideas, thoughts, and opinions.
	MP.2.1- Reason abstractly and quantitatively.	NBT.2.A- Understand place value
Vocabulary	natural phenomena , volcano, earthquake, mudslide, avalanche, flood, or erosion	

I Know About EARTH'S SYSTEMS

☐ I can explain one way that humans have designed a solution to stop wind or water from changing the earth (Dams, dikes, channels, windbreaks, trees, shrubs, grass, etc.).

☐ I can explain which design I think is most efficient to stop erosion and give evidence as to why.

☐ I can create a model (diagram, drawing, physical replica, diorama, dramatization, or storyboard) that represents the types and shapes of land and bodies or water on earth.



☐ I can draw a map of the area where I live that shows two or more landforms in that area. (Cardigan Mountain, Mascoma Lake, the Indian River, Schoolhouse Hill, Grafton Pond, The Pinnacle, etc.)

☐ I can obtain information to show where water can be found on earth (wells, ponds, lakes, rivers, streams, oceans).

☐ I can explain how water in ponds and lakes can be liquid or solid.

☐ I can tell where to find fresh water and where to find salt water.

A little primer for my teacher:

Mascoma Standards	RI.2.3- Describe the connection between a series of historical events, scientific ideas or concepts, or steps in a technical procedure in a text.	RI.2.9- Compare and contrast the most important points presented by two texts on the same topic.
	W.2.6- With guidance and support from adults, use a variety of digital tools to publish writing, including collaboration with peers.	W.2.8- Recall information from experiences or gather information from provided sources to answer a question.
	SL.2.5- Add drawings or other visual displays to writing or recounts of experiences to clarify ideas, thoughts, and opinions.	MP.2.1- Reason abstractly and quantitatively.
	MP.2.5- Use appropriate tools strategically.	NBT.2.A3- Read and write numbers to 1,000 using base ten numerals.
Vocabulary	Design solutions, dams, dikes, channels, windbreaks, salt water, landforms, peninsula, island, mountain, plains, coastline, ocean, river, stream, lake, mesa, valley, canyon,	

I Know About ENGINEERING DESIGN

☐ I can ask questions, make observations, and gather information about a situation people want to change.

☐ I can define a simple problem that can be solved through creating a new tool, or improving an old tool. (i.e. I want to open a ceiling vent and I don't have a ladder. I can create a new tool by duct-taping a screwdriver to the end of a yardstick so I can reach the switch on the vent.)

☐ I can develop a drawing to model to show how the shape of an object helps if function as needed to do a job. (A plant has many long, thin roots that reach out through the soil to anchor it.)

☐ I can analyze data from tests of two objects used to solve the same problem and compare the strengths and weaknesses of the performance of each item. (Use the test from the properties of matter unit to fulfill this objective.)

A little primer for my teacher:

Mascoma Standards	RI.2.1- Ask and answer such questions as who, what, when, where, why and how to demonstrate understanding of key details in a text.	W.2.6- With guidance and support from adults, use a variety of digital tools to publish writing, including collaboration with peers.
	W.2.8- With guidance and support from adults, recall information from experience or gather information from provided sources to answer questions.	SL.2.5- Add drawings or other visual displays to writing or recounts of experiences to clarify ideas, thoughts, and opinions..
	MP.1.2- Reason abstractly and quantitatively	MP.2.5- Use appropriate tools strategically.
	MD.2.10- Draw a picture or bar graph to represent a data set with up to four categories. Solve simple comparison problems using	

	the information presented in the graph.	
Vocabulary	Engineer, design, analyze, develop, invent, improve	