Science Planned Course: Grade 2

Unit: **Environments**

Content Standard**: Integrate the fundamental concepts of science and technology; motion in force, energy, structure of matter, change over time, and simple machines.**

State Curriculum Standard: **3.1.4 Unifying Themes**

Course Content	Student Performance	Resources	Assessments
A. Know that natural and human-made objects are made up of parts. • Identify and describe what parts make up a system.	• Identify the characteristics of an environment: • Weather • Soil • Terrain Plants • Animals • Food chains and adaptations • Forest • Rain forest • Swamp • Pond • Ocean • Arctic • Desert • Explain and describe the characteristics of an environment	• Teacher made flip books; students complete • Teacher made dictionaries; student complete • Trade books: • Artic Sun (George, J Arctic Sun (George, J.) Desert Giant (Bash,) How the Forest Grew (Jaspersohn, W.) A New True Book – Oceans (Carter, K) The Wonders of the Pond (Sabin, F.) The Great Kapok Tree Cherry, L.)	• Created Step-book • ESASD Habitat (Thematic Unit, p. 12) • Created Environment Dictionary • Create a travel brochure/guide • Create a journal • ESASD Habitat (Thematic Unit, p. 12) • Teacher created test

Science Planned Course: Grade 2

Unit: **Environments**

Content Standard: **Integrate the fundamental concepts of science and technology; motion in force, energy, structure of matter, change over time, and simple machines**

State Curriculum Standard: **3.1.4 Unifying Themes**

Cross Curricular Connection: **Social Studies Standard 7.1.A**.

Course Content	Student Performance	Resources	Assessments
B. Know models as useful simplifications of objects or processes. • Identify different types of models.	• Construct globes: Cross Curricular Connection – Social Studies 7.1.A. Identify the various environments on the globe	• ESASD Social Studies 2nd Grade Curriculum Guide p. 43	• Globes/maps of globes with various environment locations
	• Construct a model of a forest: • Place soil, plant, and rocks in a 2-liter soda bottle (top cut off) • Water the soil • Add a pill bug • Cover with plastic wrap - poke holes in, and place near window • Record observations and changes • Answer the question (conclusion) (Also correlates with Science and Technology Standard 3.2.C.4)	• Appendix E-1, E1a	• Daily Observation Journal • Student Discussion

Science Planned Course: Grade 2

Unit: **Environments**

Content Standard: **Integrate the fundamental concepts of science and technology; motion in force, energy, structure of matter, change over time, and simple machines**

State Curriculum Standard: **3.1.4 Unifying Themes**

Course Content	Student Performance	Resources	Assessments
	• Compare the differences between a salt water and fresh water aquarium	• Appendix E-1, E-1a • Appendix 2	• Observation Journal
	• Construct a clay model of the ocean floor. Have students label each part of the floor (continental shelf, mountains, valleys)	• ESASD 2nd Grade Habitat Thematic Unit p. O-2o	• Diagram of the model with parts labeled
	• Construct a "Rainforest in a Terrarium"	• ESASD 2nd Grade Habitat Thematic Unit, p. RF – 48 Appendix E-1, E-1a	• Observation Journal
	• Construct a model of a desert environment. Have students sketch a desert scene including landscape, : plants, and animals to create a diorama. Use glue and sand for the floor, and clay and paint to create living forms	• Shoebox, sand, model magic/clay, paint, and glue	• Desert Diorama
	• Construct a model of an arctic environment. Have students use sugar cubes to create landform/structures and sketches/clay form to depict animals	• Oak tag for base, sugar cubes, and glue	• Arctic Diorama/Igloo Sculpture

Science Planned Course: Grade 2

Unit: **Environments**

Content Standard: **Integrate the fundamental concepts of science and technology; motion in force, energy, structure of matter, change over time, and simple machines**

State Curriculum Standard: **3.1.4 Unifying Themes**

Course Content	Student Performance	Resources	Assessments
C. Illustrate patterns that regularly occur and reoccur in nature. • Use knowledge of natural patterns to predict next occurrences (e.g. seasons).	• Identify seasonal conditions and their effects on plants and animals through adaptation: • "Inspiration of Insulation" Experiment • "Inspiration of Insulation" Experiment • "Desert Animal Adaptation Riddle Game" • "Characteristics of Changes during each Season – Tree" • "Living in An Ocean" • "Plant and Animal Adapt-ations: A Scavenger Hunt" • "Hiding in the Forest – Rain Forest Game"	• ESASD 2nd Grade Habitat Thematic Unit, pp. A-76 • ESASD 2nd Grade Habitat Thematic Unit, p. D-69 and 70 • ESASD 2nd Grade Habitat Thematic Unit, p. F-42 • ESASD 2nd Grade Habitat Thematic Unit, p. O-46 • ESASD 2nd Grade Habitat Thematic Unit, p. P-28 • ESASD 2nd Grade Habitat Thematic Unit, p. RF-43	• Completion of Activity papers • Student Discussion
	• Identify types of leaves from the forest environment (the Pocono Environment) through a walking field trip	• ESASD 2nd Grade Habitat Thematic Unit, p. F-19, 35-40	• Leaf classifications activity papers

Science Planned Course: Grade 2

Unit: **Environments**

Content Standard: **Apply the scientific process to solve real life problems.**

State Curriculum Standard: **3.2.4 Inquiry and Design**

Cross Curricular Connection: **Communication Arts**

Course Content	Student Performance	Resources	Assessments
A. Identify and use the nature of science and technological knowledge. • Provide clear explanations that account for observations and results.	• Observe and describe differences in local environment during walking field trip	• Season Observation Journal, Appendix E-1, E-1a	• Season Observation Journal
• Relate how new information can change existing perceptions.	• List background knowledge of a season's natural characteristics prior to the Walking Field Trip. Then list new knowledge obtained from walk	• "Knowledge Chart" ESASD 2nd Grade Communication Arts Curriculum (1996/7) p. 2-179	• "Knowledge Chart"
B. Describe objects in the world using the five senses. • Use observations to develop a descriptive vocabulary.	• Create a Cinquain for each environment using describing words • Create a descriptive postcard for each environment • Create a journal using descriptive words for each environment • Create a travel brochure using descriptive words	• ESASD 2nd Grade Habitat Thematic Unit, p. 13 • ESASD 2nd Grade Habitat Thematic Unit, p 5 • ESASD 2nd Grade Habitat Thematic Unit, p. 11	• Cinquain • Postcard • Journal • Travel Brochure

Science Planned Course: Grade 2

Unit: **Environments**

Content Standard: **Describe living things, their appearance, different types of life, the scope of their similarities and differences, where and how they live, and how life has changed over time.**

State Curriculum Standard: **3.3.4 Biological Science**

Course Content	Student Performance	Resources	Assessments

A. Know the similarities and differences of living things.
• Identify life processes of living things (e.g. environment).
	• Identify life cycle changes (how animals and plants change as they grow)
	  • "Life cycle of a frog"
	  • "Raising Tadpoles"
		• ESASD 2nd Grade Habitat Thematic Unit, p. P-33 & 34.
		• ESASD 2nd Grade Habitat Thematic Unit, p. P – 35 & 36
			• Observation Journal
			• Student Discussion

	• Create pictures of animal babies and matching pictures of animal adults. Use correct vocabulary for animal baby names. Play Concentration with a peer	• Large index cards, crayons	• Card sets
	• Define food chains using video "Magic School Bus: Gets Eaten." Paper chains are created to depict ocean food chain represented in video	• 2" strips of construction paper, glue	• Completed paper food chain
	• Given examples of a Pond food chain and an Ocean food chain, cooperative groups other food chains	• ESASD 2nd Grade Habitat Thematic Unit E-6	• Completed page

Science Planned Course: Grade 2

Unit: **Environments**

Content Standard: **Describe living things, their appearance, different types of life, the scope of their similarities and differences, where and how they live, and how life has changed over time.**

State Curriculum Standard: **3.3.4 Biological Science**

Course Content	Student Performance	Resources	Assessments
• Know that some organisms have similar external characteristics, and that similarities and differences are related to environmental habitat.	• Using computer software "Kidspiration", create a food chain	• "Kidspiration" software	• Print out of disk of completed food chain web
	• Food Chain multi-disciplinary unit of activities	• ESASD 2nd Grade Habitat Thematic Unit, Food Chain (Section 2)	• Pages FC –1 through FC –32 (Habitat Unit)
	• View "Why Animals Live Where They Do." Given each environment. Students identify an animal that lives there and how it has adapted to this environment	• Video " Why Animals Live Where They Do? ", (11 min.)	• Environment and animal matches
	• View "Why Plants Grow Where They Do." Given each environment. Students identify a plant that lives there and how it has adapted	• Video " Why Plants Grow Where They Do?", 12 min.)	• Environment and plant matches
	• Video "Plants and Animals Depend on Each Other." List ways and examples they depend on each other	• Video "Plants and Animals Depend on Each Other " (12 min.)	• List/examples
	• Web ways an animal protects itself in each environment	• Paper or chart paper	• Web

Science Planned Course: Grade 2

Unit: **Environments**

Content Standard**: Describe living things, their appearance, different types of life, the scope of their similarities and differences, where and how they live, and how life has changed over time**.

State Curriculum Standard: **3.3.4 Biological Sciences**

Course Content	Student Performance	Resources	Assessments
	• Given a generic animal, students write an animal report	• Appendix E-4, construction paper, crayons, markers, glue	• Inventional report
B. Know that living things are made up of parts that have specific functions. • Determine how different parts of living things work together to make the organism function.	• Read in Textbook p. 84 – 85 "How do plants and animals help each other?" • Guided Inquiry "How can you model a food web?" p. 90 and 91(also correlates with Science and Technology Standard 3.2.4-C Scientific Process)	• Scott Foresman Science (Pearson Education, 2006) • Scott Foresman Science (Pearson Education, 2006)	• Answer "Checkpoint" questions p. 85 • Drawing food web/names p. 91. Workbook p.36
	• View video "Plants and Animals Depend on Each Other"	• Video "Plants and Animals Depend on Each Other " (12 min.)	• List how plants and animals depend on each other
C. Know that characteristics are inherited and thus offspring closely resemble their parents. • Identify characteristics for animal and plant survival in different climates.	• Identify seasonal conditions and their effects on plants and animals through adaptation • "Inspiration of Insulation" Experiment • " Desert Animal Adaptation Riddle Game" • "Living in An Ocean"	• ESASD 2nd Grade Habitat Thematic Unit, p. A-76 • ESASD 2nd Grade Habitat Thematic Unit, p. D-69 and 70 • ESASD 2nd Grade Habitat Thematic Unit, p. O-46 • ESASD 2nd Grade Habitat Thematic Unit, p. P-28	• Completion of Activity Papers

Science Planned Course: Grade 2

Unit: **Environments**

Content Standard: **Describe living things, their appearance, different types of life, the scope of their similarities and differences, where and how they live, and how life has changed over time.**

State Curriculum Standard: **3.3.4 Biological Sciences**

Course Content	Student Performance	Resources	Assessments
	• "Plant and Animal Adaptations: A Scavenger Hunt" • " Hiding in the Forest – Rain Forest Game"	• ESASD 2nd Grade Habitat Thematic Unit, p. RF-43	• Completion of Activity pages
D. Describe the composition and structure of the universe and the earth's place in it. • Explain and illustrate the causes of seasonal changes.	• "Characteristics of Changes during each season – tree"	• ESASD 2nd Grade Habitat Thematic Unit, p. F-42	• Completion of Activity pages

Science Planned Course: Grade 2

Unit**: Environments**

Content Standard: **Use principles from physical sciences, geography, and mathematics to study the forces of nature that build the earth and wear down the earth**.

State Curriculum Standard: **3.5.4 Earth Sciences**

Course Content	Student Performance	Resources	Assessments
A. Recognize the earth's different water sources. • Identify and describe types of fresh and salt-water bodies.	• "A Salty Solution" Experiment (also correlates with 3.2.4-C Scientific Process)	• ESASD 2nd Grade Habitat Thematic Unit, O-65. Appendix E-3	• Student Illustration • Trifold:: Draw Prediction, Draw what happened during experiment, draw outcome
	• "Salinity Currents" Experiment (also correlates with 3.2.4-C Scientific Process)	• ESASD 2nd Grade Habitat Thematic Unit, O-66	• Answers to post experiment questions
▪ Recognize other resources available from water (e.g. food)	• Read text "Water and Air" pgs. 144 and 145	• Scott Foresman Science (Pearson Education, 2006)	• List of how water is used everyday

Science Planned Course: Grade 2

Unit: **Environments**

Content Standard: **Identify and explain the living and nonliving characteristics of water environments.**

State Curriculum Standard: **4.1.4 Watersheds and Wetlands**

Course Content	Student Performance	Resources	Assessments
A. Identify various types of water environments. • Identify the lentic system (e.g. ponds, lakes, swamps).	• Pond multi-disciplinary unit of activities	• ESASD 2nd Grade Habitat Thematic Unit, Pond Section	• Activity sheets and experiments
B. Identify living things found in water environments. • Identify fish, insects and amphibians that are found in fresh water. • Identify plants found in fresh water.	• Read in text "What are some ways amphibians are adapted?" pp. 50 and 51 • Read in text "How are some marsh plants adapted?" pp. 24 and 25	• Scott Foresman Science (Pearson, Education, 2006) • Scott Foresman Science (Pearson Education, 2006)	• Workbook p. 23, Answers to "Lesson Checkpoint" p. 51 • Workbook p. 10, Answers to "Lesson Checkpoint" p. 24
C. Identify a wetland and the plants and animals found there. • Identify plants and animals found in wetlands.	• Pond multi-disciplinary unit of activities	• ESASD 2nd Grade Habitat Thematic Unit, Pond Section	• Activity sheets, activities, and experiments

Science Planned Course: Grade 2

Unit: **Environments**

Content Standard: **Describe and evaluate how human actions affect environmental health issues**.

State Curriculum Standard: **4.3.4 Environmental Health**

Course Content	Student Performance	Resources	Assessments
A. Understand that the elements of natural systems are interdependent. • Identify some of the organisms that live together in an ecosystem.	• 6 Habitats multi-diciplinary unit of activities; plants and animals for each environment	• ESASD 2nd Grade Habitat Thematic Unit	• Activity sheets, activities, and experiments

Science Planned Course: Grade 2

Unit: **Environments**

Content Standard: **Investigate the relationship of agricultural science and society's standard of living.**

State Curriculum Standard: **4.4.4 Agriculture and Society**

Course Content	Student Performance	Resources	Assessments
A. Know that food and fiber originate from plants and animals. • Identify what plants and animals need to grow.	• Read Text "What do plants and animals need", "Different needs" pp. 71 – 73	• Scott Foresman Science (Pearson Education, 2006) TM p. EMii	• 2 T-Charts (one for plants and one for animals) - basic needs, what meets those needs

Science Planned Course: Grade 2

Unit: **Environments**

Content Standard: **Examine the flow of energy within an ecosystem and how its organisms have changed over time.**

State Curriculum Standard: **4.6.4 Ecosystems and their Interactions.**

Course Content	Student Performance	Resources	Assessments
A. Understand that living things are dependent on nonliving things in the environment for survival.	• Read Text "Building Nests" pgs. 86 and 87	• Scott Foresman Science (Pearson Education, 2006)	• Answers to "Lesson Checkpoint" p. 87
• Identify basic needs of a plant and an animal and explain how their needs are met.	• Experiment "How can a bat find shelter?" (fold paper plate in half, glue five cotton balls inside fold, stand up plate like a tent, put in a tray, pour water over the plate, observe cotton balls.) (also correlates with Scientific Process 3.2.4-C	• Paper plates, cotton balls, glue, tray, water	• Prediction and outcome of Experiment
▪ Understand the components of a food chain	• Food Chain multi-disciplinary thematic unit	• ESASD 2nd Grade Habitats Thematic Unit	• Activity pages, activities, and Experiments
	• Read Text "How Do Living Things Help Each Other?" pp. 67, 76, 77, 80 and 81	• Scott Foresman Science (Pearson Education, 2006)	• Answers to "Lesson Checkpoint" pp. 77 and 81
▪ Identify common soil textures	• Read Text "What Are Rocks and Soil Like?" pp. 146-149	• Scott Foresman Science (Pearson Education, 2006)	• Answers to "Lesson Checkpoint" pp. 147 and 179, Workbook p. 59

Science Planned Course: Grade 2

Unit: **Environments**

Content Standard: **Describe the biological diversity of an ecosystem and explain how natural or human actions cause the loss of species.**

State Curriculum Standard: **4.7.4 Threatened, Endangered, and Extinct Species**.

Course Content	Student Performance	Resources	Assessments
A. Know that adaptations are important for survival. • Explain how specific adaptations can help a living organism to survive.	• Read Text "What Are Some Ways Mammals Are Adapted?", "What Are Some Birds Adapted?", "What Are Some Ways Fish Adapted?" "What Are Some Ways Reptiles Adapted?", "What Are Some Ways Amphibians Adapted?" pp. 42 –51	• Scott Foresman Science (Pearson Education, 2006)	• Answer questions to "Lesson Checkpoints" pp. 43, 45, 47, 49, and 51 • Workbook pp. 19, 20, 21, 22, and 23

Science Planned Course: Grade 2

Unit:

Content Standard:

State Curriculum Standard:

Course Content	Student Performance	Resources	Assessments
A.	•	•	•

Science Planned Course – Grade 2

Unit: **Sound**

Content Standard: **Investigate the structure and properties of objects.**

State Curriculum Standard: **3.4.4 Physical Science, Chemistry and Physics**

Cross Curriculum Connection: **Technology**

Course Content	Student Performance	Resources	Assessments
A. Observe and describe different types of force and motion. • Identify characteristics of sound (pitch, loudness, and echoes).	• Define vibration • Demonstrate vibration by taping a tuning fork to a student's hand (to feel), in a bowl of water (splashes out due to sound traveling in ripples and not being able to go anywhere but up), to a paper (creates buzzing)	• Tuning forks, bowl of water, paper	• Student made sound glossary
	• Read Text "What is Sound?" p. 335	• Scott Foresman Science (Pearson Education, 2006)	• Workbook 124 and 127
	• Read book "Noisy Nico"		
	• Vibration speed determines pitch. Experiment "How can you make sound?" p 332	• Ruler, Scott Foresman Science (Pearson Education, 2006)	• Activity Book pp.111-12; rubric p. 87

Science Planned Course – Grade 2

Unit: **Sound**

Content Standard: **Investigate the structure and properties of objects.**

State Curriculum Standard: **3.4.4 Physical Science, Chemistry and Physics**

Course Content	Student Performance	Resources	Assessments
	• Alternate sound activity – TM p. 332, Internet link: www.SFSuccessNet.com • Experiment "What is Pitch?" 338 & 339. (also correlates to the Scientific Process 3.2.4-C) • Read "Pitch", Noisy Nico pgs • Internet link: www.SFSuccessNet.com for pitch TM p. 338 • "Quick Activity" TM p.338 (Transparency 58) List sounds that have a high pitch and a low pitch	• Scott Foresman Science (Pearson Education, 2006) • Scott Foresman Science (Pearson Education, 2006) • Scott Foresman Science (Pearson Education, 2006)	• Answer Questions for "Lesson Checkpoint" p. 338, Workbook p. 128, list of high and low pitched sounds • The High Pitch/Low Pitch List

Science Planned Course – Grade 2

Unit: **Sound**

Content Standard: **Investigate the structure and properties of objects.**

State Curriculum Standard: **3.4.4 Physical Science, Chemistry and Physics**

Course Content	Student Performance	Resources	Assessments
	• Experiment "How can you change sound?" pp. 346 and 347. (also correlates to the Scientific Process 3.2.4-C	• Scott Foresman Science (Pearson Education, 2006)	• Activity pgs. 113 and 114, (rubric p. 88)
	• Alternate how sound changes activity – TM p. 346, Internet link: www.SFSuccessNet.com	• Scott Foresman Science (Pearson Education, 2006)	
	• Read text "How does sound travel?" pgs 340-341	• Scott Foresman Science (Pearson Education, 2006)	• Answer Questions for "Lesson Checkpoint" p. 341, Workbook p. 129
	• Experiment: "Does Sound Travel Better Through Cotton or Air?". (also correlates to the Scientific Process 3.2.4-C)	• Appendix S-1	• Experiment Prediction/ Outcome data
	• Experiment: "Sounds and Solids". (correlates to the Scientific Process 3.2.4-C)	• Appendix S-2	• Experiment Prediction/ Outcome data

Science Planned Course – Grade 2

Unit: **Sound**

Content Standard: **Investigate the structure and properties of objects.**

State Curriculum Standard: **3.4.4 Physical Science, Chemistry and Physics**

Course Content	Student Performance	Resources	Assessments
	• Experiment: "Homemade Telephones". (also correlates to the Scientific Process 3.2.4-C)	• Appendix S-3	• Experiment Prediction/ Outcome date
	• View "Magic School Bus: Haunted House" (sound Travel)	• Scholastic, Inc.	• Students answer questions at the end of the video; pause before video gives answers
	• Noisy Nico "echoes"	• MacMillan/McGraw Hill, 1995	
	• View "Magic School Bus: Goes Batty" (echo-relocation)	• Scholastic, Inc.	• Students answer questions at the end of the video; pause before video gives answers

Science Planned Course – Grade 2

Unit: **Sound**

Content Standard: **Design, create, use, evaluate, and modify systems of Biotechnologies, Information Technologies, and Physical Technologies**.

State Curriculum Standard: **3.6.4 Technology Education**

Course Content	Student Performance	Resources	Assessments
A. Know that information technologies involve encoding, transmitting, receiving, storing, retrieving, and decoding. • Identify electronic communication methods that exist in the community (e.g. digital cameras, telephone, internet, television, fiber optics).	• Read Text "How do we use Technology to communicate?" pp. 404 and 405	• Scott Foresman Science (Pearson Education, 2006)	• Answer Questions for "Lesson Checkpoint" p. 405, Workbook p. 152

Science Planned Course – Grade 2

Unit: **Weather**

Content Standard: **Integrate the fundamental concepts of science and technology; motion in force, energy, structure of matter, change over time, and simple machines.**

State Curriculum Standard: **3.1.4 Unifying Themes**

Cross Curriculum Integration: **Technology, Mathematics**

Course Content	Student Performance	Resources	Assessments
A. Know models as useful simplifications of objects or processes. • Identify and apply models as tools for prediction and insight. • Apply appropriate simple modeling tools and techniques.	• Students observe changes that occur when a thermometer is put in a cup of hot water, then ice water	• Thermometer, cups, ice, styrofoam cups, hot water	• Data observations
	• "Does the Temperature Change During the Day?" Experiment. (Also coincides with Science Standard for Scientific Process 3.2.4-C)	• Weather Watch, (Macmillian/McGraw-Hill, 1995), p.6 and 7. Appendix W-1 and W-2	• Experiment Prediction and Outcome. Graph results (Math Integration-2.5)
	• Introduce the tool: Wind Vane. Do "Which Way the Wind?" Experiment. (also coincides with Science Standard for Scientific Process 3.2.4-C)	• Weather Watch, (Macmillian/McGraw-Hill, 1995), p. 12. Appendix W-1 and W-2	• Daily Wind Observation Log Graph results (Math Integration-2.5)
	• Create an anemometer (tack 2 straws to a pencil using a straight pin, use 4 3"x2" pieces of const. paper slit on both ends (3 one color, 1 a different color), slide both slits on the end of a straw shape - facing in the same direction). Test outside daily, count rotations per minute	• Per student: 2 straws, 1 straight pin, 1 pencil, 4 pieces 3"x2" construction paper (3 one color, 1 a different color)	• Daily Anemometer Log Graph results (Math Integration-2.5)

Science Planned Course – Grade 2

Unit: **Weather**

Content Standard: **Integrate the fundamental concepts of science and technology; motion in force, energy, structure of matter, change over time, and simple machines.**

State Curriculum Standard: **3.1.4 Unifying Themes**

Cross Curriculum Integration: **Technology, Mathematics**

Course Content	Student Performance	Resources	Assessments
	• Read "Science Background: Weather Instruments" information on barometer, record daily data	• Appendix W-1 and W-2	
	• Complete an experiment "How Much Rain Falls?" (also coincides with Science Standard for Scientific Process 3.2.4-C, Math Integration – 2.3)	• Scott Foresman Science (Pearson, 2006), TM p. 171) Appendix W-1 and W-2	• Daily Barometer Readings, Graph results (Math Integrations – 2.5)
	• Make a rain gauge in "How Can We Measure Rainfall?"	• Scott Foresman Science (Pearson, 2006), TM p. 172	• Activity Book pgs. 69 and 70, Activity Rubric 76
		• Weather Watch, (Macmillan/ McGraw-Hill, 1995) p. 13. Appendix W-1 and W-2	• Daily Rain Gauge Log, Graph results (Math Integration – 2.5)

Science Planned Course – Grade 2

Unit: **Weather**

Content Standard: **Integrate the fundamental concepts of science and technology; motion in force, energy, structure of matter, change over time, and simple machines.**

State Curriculum Standard: **3.1.4 Unifying Themes**

Cross Curriculum Integration: **Technology, Mathematics**

Course Content	Student Performance	Resources	Assessments
• Describe the change to objects caused by heat, cold, light, or chemicals.	• Complete alternative Rain Fall activity on www.SFSuccessNet.Com	• S.F. Science CD (Pearson, 2006)	• Completion of Internet Activity
	• Complete activity "Sunny vs. Cloudy Day"	• Scott Foresman Science (Pearson, 2006) "Quick Activity" TM p. 366 and Transparency 62	• Complete T-Chart, TM Emii
B. Illustrate patterns that regularly occur and reoccur in nature. • Use knowledge of natural patterns to predict next occurrences (e.g. seasons, leaf pattern, lunar phases).	• Read "What is the Sun?" • Create Outdoor Activities Chart for different months	• Scott Foresman Science (Pearson, 2006) TM p. 367	• Answers to "Scaffolded Questions" TM p. 367 and Workbook p. 138
	• Read "What is Spring?" • Create a SPRING acrostic poem	• Scott Foresman Science (Pearson, 2006) "Quick Activity" TM p. 180 and Transparency 34	• Chart of Seasonal Activities
	• Similar summer characteristics	• Scott Foresman Science (Pearson, 2006), TM p.180 and 181 • Scott Foresman Science (Pearson, 2006), TM p. 182	• Workbook p. 72, "Lesson Checkpoint" p.180 and TM p.181, Scaffolded Questions" TM p.181 • List of summer characteristics

Science Planned Course – Grade 2

Unit: **Weather**

Content Standard: **Integrate the fundamental concepts of science and technology; motion in force, energy, structure of matter, change over time, and simple machines.**

State Curriculum Standard: **3.1.4 Unifying Themes**

Cross Curriculum Integration: **Technology, Mathematics**

Course Content	Student Performance	Resources	Assessments
	• Read "What is Summer?" • Create a SUMMER acrostic poem	• Transparency 35 • Scott Foresman Science (Pearson, 2006) TM pp. 182 and 183	• Workbook p. 73, "Lesson Checkpoint" p.182 and TM p.181, Scaffolded • Questions" TM p.182
	• Leaf comparison (summer and fall).	• Scott Foresman Science (Pearson, 2006) "Quick Activity" TM p. 366 and Transparency 62	• T-Chart: summer leaves and fall leaves, Prediction: What will happen to fall leaves?
	• Read "What is Fall?" • Create a FALL acrostic poem	• Scott Foresman Science (Pearson, 2006), TM p. 184 and 185	• Workbook p. 74, "Lesson Checkpoint" p.184 and TM p.181, Scaffolded Questions" TM p.185
	• Complete "Air Comparisons" activity	• Scott Foresman Science (Pearson, 2006) "Quick Activity" TM pp. 186 and Transparency 37	• Descriptions of air from each picture
	• Read "What is Winter?" • Create a WINTER acrostic Poem	• Scott Foresman Science (Pearson, 2006), TM pp. 186 and 187	• Workbook p. 75, "Lesson Checkpoint" p.186 and TM p.187, Scaffolded Questions" TM p.187

Science Planned Course – Grade 2

Unit: **Weather**

Content Standard: **Integrate the fundamental concepts of science and technology; motion in force, energy, structure of matter, change over time, and simple machines.**

State Curriculum Standard: **3.1.4 Unifying Themes**

Cross Curriculum Integration: **Technology, Mathematics**

Course Content	Student Performance	Resources	Assessments
	• Weather antonym words	• Scott Foresman Science (Pearson, 2006) "Quick Activity" TM p. 374 and Transparency 64	• List of weather antonyms
	• Pictures and descriptions of each season	• ESASD 2nd Grade Habitat Thematic Unit p. F-42	• Step book of each season
	• Illustrate and describe characteristics of each season	• Scott Foresman Science (Pearson, 2006), p. 174 and 177	• Complete page
	• Read "What's the Weather? Describe different kinds of weather? Wet and Dry Weather"	• National Weather Service	• Workbook p. 70, "Lesson Checkpoint" TM 177, Scaffolded Questions" TM p.175 and 177
	• Review forecast using Internet: website:www.nws.noaa.gov		• Comparisons of tomorrow's predicted weather with actual weather

Science Planned Course – Grade 2

Unit: **Weather**

Content Standard: **Apply the scientific process to solve real life problems**.

State Curriculum Standard: **3.2.4 Inquiry and Design**

Course Content	Student Performance	Resources	Assessments
A. Identify and use the nature of scientific and technological knowledge. • Provide clear explanations that account for observations and results.	• Model doing observations and recording data for experiments for 3.1.4 listed previously	• Experiments for 3.1.4 listed previously	• Experiments for 3.1.4 listed previously

Science Planned Course – Grade 2

Unit: **Weather**

Content Standard: **Investigate the structure and properties of objects.**

State Curriculum Standard: **3.4.4 Physical Science, Chemistry, and Physics**

Course Content	Student Performance	Resources	Assessments
A. Recognize basic concepts about the structure and properties of matter. • Know different material characteristics (e.g. texture, state of matter, solubility). .	• Complete activities for water state of matter as part of water solid, liquid, and gas (see Science Standard 3.5.4-D) the water cycle (see Science Standard 4.6.4-B)	• Science Standard 3.5.4-D and Science Standard 4.6.4-B	• Science Standard 3.5.4-D and Science Standard 4.6.4-B
B. Describe the composition and structure of the universe and the earth's place in it. • Explain and illustrate the causes of seasonal changes.	• Read "What Causes Seasons to Change?"	• Scott Foresman Science (Pearson, 2006), p. 374 and 375	• Workbook p. 140, "Lesson Checkpoint" p. 374 TM p. 375, Scaffolded Questions" TM p.375

Science Planned Course – Grade 2

Unit: **Weather**

Content Standard: **Use principles from physical sciences, geography, and mathematics to study the forces of nature that build the earth and wear down the earth.**

State Curriculum Standard: **3.5.4 Earth Sciences**

Cross Curriculum Integration: **Technology**

Course Content	Student Performance	Resources	Assessments
A. Know basic weather elements. • Identify cloud types.	• Read about clouds. Create a cloud 3-D chart trifold for cumulus, cirrus, and stratus	• Weather Watch (Macmillan/ McGraw-Hill, 1995) pgs. 26 and 27, cottonballs, glue, gray paint	• Cloud chart correctly labeled and described
	• Read "The Cloud Book"; "Make a Cloud Book" activity • Read "Wind and Weather"	• T. DePaolo, (Holiday House, 1975). Cloud pattern paper - Appendix	• Completed Cloud Book.
• Identify weather patterns from data charts (including temperature, wind direction, and speed. Precipitation and graphs of the data.)	• Internet web site: ESASD Homepage, click on Bookmarks, click on "Kathy Schrock Weather"	• Weather Watch, (Macmillian/McGraw-Hill, 1995), pgs 8, 10, and 11 • Discovery School web site	• Daily wind observation and recording of data (using chart on p. 11)
B. Recognize the earth's different water resources. • Identify examples of water in the form of solid, liquid, gas on or near the earth's surface.	• Complete experiments and data recording for 3.1,4 listed previously to make predictions for the next day	• Experiments and data recording for 3.1.4 listed previously	• Experiments and data recording for 3.1.4 listed previously

Science Planned Course – Grade 2

Unit: **Weather**

Content Standard: **Use principles from physical sciences, geography, and mathematics to study the forces of nature that build the earth and wear down the earth.**

State Curriculum Standard: **3.5.4 Earth Sciences**

Cross Curriculum Integration: **Technology**

Course Content	Student Performance	Resources	Assessments
• Explain and illustrate evaporation and condensation.	• Read "Water's Way" and explain the physical changes that take place with water • Complete related activities under Water Cycle Science Standard 4.6.4-B	• L. Westberg (MacMillan/ McGraw-Hill Publishers 1991) • Scott Foresman Science (Pearson Education, 2006) TM p. Emiii	• Tri-chart describing how water is a solid, liquid, and gas

Science Planned Course – Grade 2

Unit: **Weather**

Content Standard: **Select appropriate technological tools to collect, analyze, and communicate information and ideas.**

State Curriculum Standard: **3.7.4 Technological Devices**

Course Content	Student Performance	Resources	Assessments
A. Select appropriate instruments to study materials. • Explain appropriate instrument selection for specific task.	• Read about weather tools: thermometer, anemometer, rain gauge, barometer, wind vane under Standard 3.1.4-B	• Thermometer, anemometer, rain gauge, barometer, wind vane; see Standard 3.1.4-B.	• See Standard 3.1.4-B.

Science Planned Course – Grade 2

Unit: **Weather**

Content Standard: **Identify and explain the living and nonliving characteristics of water environments.**

State Curriculum Standard: **4.1.4 Watersheds and Wetlands**

Course Content	Student Performance	Resources	Assessments
A. Explain the differences between moving and still water. ▪ Identify types of precipitation.	• Complete "How can you tell that water is moving?" Experiment (also coincides with Science Standard for Scientific Process 3.2.4-C)	• Scott Foresman Science (Pearson, 2006) TM p. 169E	• Prediction and Outcome of Experiment, explanation of how water is similar to water in the water cycle
	• Create a Precipitation Chart for rain, snow, sleet, and hail	• Large construction divided into 4 sections, drops of glue (rain) silver glitter (sleet) and white glitter (snow), and tiny white beads (hail)	• Completed Chart labeled and defined

Science Planned Course – Grade 2

Unit**: Weather**

Content Standard: **Examine the flow of energy within an ecosystem and how its organisms have changed over time.**

State Curriculum Standard: **4.6.4 Ecosystems and their Interactions**

Course Content	Student Performance	Resources	Assessments
A. Understand the Concept of cycles. • Explain the water cycle.	• Share knowledge with how water dries	• Scott Foresman Science (Pearson, 2006) "Quick Activity" p. 178 Transparency 33	• Conclusions of how wet items are continually washed and dry (through evaporation)
	• Read "What is the Water Cycle?"	• Scott Foresman Science (Pearson, 2006) p.178 and 179	• Workbook p. 71, "Scaffolded Questions" and "Lesson Checkpoint" TM 179
	• Use model of water cycle (place water in lake section, place lamp shining on lake, put ice on top in cloud section.) Explain evaporation, condensation, and precipitation	• Water Cycle model, Appendix	• Complete papers, observation journal
	• Read "Water, Water Everywhere"	• Weather Watch, MacMillan/ McGraw-Hill, 1995), pgs. 24 and 25	• Act out the water cycle through drama movements
	• Create a Water Cycle display illustrate evaporation, condensation, and precipitation), put definitions of each attached	• Circle cycle paper, crayons, silver glitter for precipitation, cottonballs and gray paint for clouds, gold glitter for squiggle arrows representing evaporation	• Completed display with definitions

Science Planned Course – Grade 2

Unit: **Weather**

Content Standard: **Identify the biological requirements of humans, and analyze the relationship between the use of natural resources and society's needs**.

State Curriculum Standard: **4.8.4 Humans and the Environment**

Cross Curriculum Integration: **Technology**

Course Content	Student Performance	Resources	Assessments
A. Know that environmental conditions influence where and how people live. • Explain the influence of climate on how and where people live.	• Read "What Are Some Kinds of Bad Weather?", create a plan to follow if a thunderstorm occurs near their home	• Scott Foresman Science (Pearson, 2006) p. 188 and 189	• Workbook 76, "Checkpoint" p.188 and TM 189, "Scaffolded Questions" TM p. 189
	• View Video: "Magic School Bus: Kicks up a Storm	• Video " Magic School Bus: Kicks up a Storm"	• Answer questions at the end of the video; pause after each question
	• Read about Tornadoes and Hurricanes	• Scholastic, Inc.	• Workbook 76, "Checkpoint" p.190 and TM 191, p.192 and TM p. 193, "Scaffolded Questions" TM p. 191 and 193
	• Create Tornado models: 2 soda bottles with plastic tornado connector (fill one bottle with water and swirl around to create a funnel), one soda bottle (remove air from inside the bottle by sucking it out – bottle collapses due to pressure dropping)	• Scott Foresman Science (Pearson, 2006) p. 190 – 193 • 2-liter soda bottles, tornado connector	• Explain what happened during demonstrations

Science Planned Course – Grade 2

Unit: **Weather**

Content Standard: **Identify the biological requirements of humans, and analyze the relationship between the use of natural resources and society's needs.**

State Curriculum Standard: **4.8.4 Humans and the Environment**

Cross Curriculum Integration: **Technology**

Course Content	Student Performance	Resources	Assessments
	• Read about Hurricanes and Tornadoes	• Weather Watch, (MacMillan /McGraw-Hill, 1995) p.16-18.	• Write definitions of hurricane and tornado.
	• Create Eye of a Hurricane model: whirl a yo-yo around your head (showing the force that pulls an object outward when moving in a circle)	• Yo-yo	• Explain what happened during demonstration
	• View Videos: "Tornadoes" and "Hurricanes"	• Videos: "Tornadoes" and "Hurricanes"	• K-W-L for each storm
	• Create a Step book of storms (include definition, illustration, formation, and safety tips)	• Delta/Nova Scott Foresman Science (Pearson Education, 2006) TM p. Emi.	• Step book
	• Review information on Internet website: ESASD homepage, click on Technology, click on K-3, click on "Web Weather for kids"	• ESASD 2nd Grade Habitat Thematic Unit p. 12. • Internet	• Scoring for games

Science Planned Course – Grade 2

Unit: **Ecology**

Content Standard: **Analyze the needs of people and factors affecting the availability of renewable and nonrenewable resources.**

State Curriculum Standard: **4.2.4 Renewable and Nonrenewable Resources**

Cross Curriculum Integration: **Technology**

Course Content	Student Performance	Resources	Assessments
A. Identify needs of people. • Identify plants, animals, water, air, minerals, and fossil fuels as natural resources.	• Complete "What objects do you see in the picture?" • Read "What are natural resources?" • Read "Water and Air"	• Scott Foresman Science, (Pearson Education, 2006) "Quick Activity" • Transparency 27, TM 142 • Scott Foresman Science, (Pearson Education, 2006) p. 143	• Web of Natural Resources, Workbook p. 58 • "Scaffolded Questions" , TM p. 143
B. Identify products derived from natural resources. • Identify products made from trees. • Identify the sources of manmade products (e.g. plastics, metal, aluminum, fabrics, paper, cardboard).	• List products made of plants • Read "Reduce, Reuse, Recycle"	• Scott Foresman Science, (Pearson Education, 2006) p. 144 • Scott Foresman Science, (Pearson Education, 2006) • "Quick Activity Transparencey 29, TM 150 • Scott Foresman Science (Pearson Education, 2006) p. 156 and 157	• "Lesson Checkpoint" p. 144 and TM 145 • "Scaffolded Questions", TM p. 151 • "Lesson Checkpoint" p. 151 and TM 151 • "Scaffolded Questions", TM p. 157 "Lesson Checkpoint" p. 157 and TM 157.

Science Planned Course – Grade 2

Unit: **Ecology**

Content Standard: **Analyze the needs of people and factors affecting the availability of renewable and nonrenewable resources.**

State Curriculum Standard: **4.2.4 Renewable and Nonrenewable Resources**

Cross Curriculum Integration: **Technology**

Course Content	Student Performance	Resources	Assessments
	• Internet virtual field trip: www.aluminiumcanrecycling.co.uk/plant_tour.php# click on "Launch interactive plan and tour"		• Postcard describing what was seen on trip
C. Know that some natural resources have limited life spans. • Identify renewable and non renewable resources used in the local community. • Identifying various means of conserving natural resources.	• Internet game: www.trash4kids.org/sortitout.html • Internet game: www.trash4kids.org/cleanitout.html		• Score from game • Score from game
D. Identify by-products and their use of natural resources. • Identify those items that can be recycled and those that cannot.	• Read "Where does the garbage go?"	• P. Showers and R. Chewning, Harper Collins, 1993. Scott Foresman Science, (Pearson Ed. 2006) TMp. Emii	• T-chart: Items that can be recycled, items that cannot be recycled

Science Planned Course – Grade 2

Unit: **Ecology**

Content Standard: **Analyze the needs of people and factors affecting the availability of renewable and nonrenewable resources.**

State Curriculum Standard: **4.2.4 Renewable and Nonrenewable Resources**

Cross Curriculum Integration: **Technology**

Course Content	Student Performance	Resources	Assessments
• Identify use of reusable products.	• Internet virtual tour: http://www.trash4kids.org/fieldtrips.html (landfill) • Internet virtual tour: http://www.trash4kids.org/fieldtrips.html (scrap yard) • View Video: "Magic School Bus: Recycling" • Experiment: "How can you reuse something?" (also correlates to Science Standard for Scientific Process 3.2.4-C) • "Good Things Come in Less Packaging"	• Scholastic, Inc. • Scott Foresman Science, (Pearson Education, 2006) p. 137E • ESASD 2nd Grade Habitats Thematic Unit, p. EC –55	• Sort and classify recyclable items for landfill • Describe the scrapping process • Prediction and Outcome for Experiment • Completed Solutions

Science Planned Course – Grade 2

Unit: **Ecology**

Content Standard: **Describe and evaluate how human actions affect environmental health issues.**

State Curriculum Standard: **4.3.4 Environmental Health**

Cross Curriculum Integration: **Social Studies**

Course Content	Student Performance	Resources	Assessments
A. Identify how human actions affect environmental health. • Identify pollutants.	• Pollution is harmful	• Scott Foresman Science, (Pearson Education, 2006) "Quick Activity" Transparency 31, TM p. 154	• Brainstormed class list
• Identify sources of pollution.	• Read "The Little House" (Social Studies Integration)	• (V. Burton) Houghton Mifflin, 1969	• List types of pollution and their affect on the little house, people, and city
	• Read "Just a Dream"	• (C. Van Allsburg) Houghton Mifflin, 1990	• Create solutions to various pollution issues
	• "Pollution Has Many Forms"	• Scott Foresman Science, (Pearson Education, 2006) TM p. 155 • Peet, B., Houton Mifflin, ESASD 2nd Grade Habitat Thematic Unit p.EC-7	• Sequence how light evolves into becoming a pollutant. • Posters of ways to cut down and eliminate pollution on their planet
• Identify litter and its effect on the environment.	• Read "The Wump World	• ESASD 2nd Grade Habitat Thematic Unit p.EC-8	• Pollution Solution collage

Science Planned Course – Grade 2

Unit: **Ecology**

Content Standard: **Describe and evaluate how human actions affect environmental health issues.**

State Curriculum Standard: **4.3.4 Environmental Health**

Cross Curriculum Integration: **Social Studies**

Course Content	Student Performance	Resources	Assessments
	• Read "How can people help protect Earth?"	• Scott Foresman Science, (Pearson Education, 2006) p. 154-155	• "Scaffolded Questions" , TM p. 155 "Lesson Checkpoint" p. 155 and TM 155
• Describe how people can reduce pollution.	• Read "The Great Trash Bash" plus related activities	• L. Leedy, Scholastic, Inc. 1980. ESASD 2nd Grade Habitat Thematic Unit, pgs. EC-13 through 20	• Completed activities and pages
B. Understand that the elements of natural systems are interdependent. • Identify the effects of a healthy environment on the ecosystem.	• "E is for Ecology"	• ESASD 2nd Grade Habitat Thematic Unit, EC 48	• Completing dialogue

Science Planned Course – Grade 2

Unit: **Ecology**

Content Standard: **Examine the flow of energy within an ecosystem and how its organisms have changed over time.**

State Curriculum Standard: **4.6.4 Ecosystems and their Interactions**

Course Content	Student Performance	Resources	Assessments
A. Identify how ecosystems change over time.	• View video: "Magic School Bus: Rot Squad"	• Scholastic, Inc.	• Questions at the end of video, pause for responses

Science Planned Course – Grade 2

Unit: **Ecology**

Content Standard: **Identify the biological requirements of humans, and analyze the relationship between the use of natural resources and society's needs.**

State Curriculum Standard: **4.8.4 Humans and Environment**

Cross Curriculum Integration: **Communication Arts**

Course Content	Student Performance	Resources	Assessments
A. Identify the biological requirements of humans. • Identify several ways that people use natural resources.	• See Ecology and Environment Standard 4.2.4 in this Ecology Unit for related activities		
B. Explain how human activities may change the environment. • Identify everyday human activities and how they affect the environment. • Identify examples of how human activities within a community affect the natural environment.	• "Precycling or Recycling" • Read "Global Change"	• ESASD 2nd Grade Habitat Thematic Unit, p. EC-57 • T. Snow, Children's Press, 1990 Scott Foresman Science, (Pearson Education, 2006) TM p. EMxi	• List other ways to precycle • Cause and Effect Chart
C. Know the importance of natural resources in daily life. • Identify ways to conserve our natural resources.	• Experiment "Drip Data" (also correlates with Science Standard for Scientific Process 3.2.4-C)	• ESASD 2nd Grade Habitat Thematic Unit, EC-28 • ESASD 2nd Grade Habitat Thematic Unit, EC -45	• Predication and outcome of experiment

Science Planned Course – Grade 2

Unit: **Ecology**

Content Standard: **Identify and describe environmental laws and regulations**.

State Curriculum Standard: **4.9.4 Environmental Laws and Regulations**

Cross Curriculum Integration: **Communication Arts**

Course Content	Student Performance	Resources	Assessments
A. Know that there are laws and regulations for the environment.	• "Writing for a Reason"	• ESASD 2nd Grade Habitat Thematic Unit, EC -45	• Friendly letter writing rubric (Communication Arts Integrations
• Explain how the recycling law impacts the school and home.	• Write a letter to local government asking what the local recycling laws are and consequences for not complying	• Township/Borough Address	• Friendly letter writing rubric (Communication Arts Integration)

Science Planned Course – Grade 2

Unit: **Transportation**

Content Standard: **Investigate the structure and properties of objects.**

State Curriculum Standard: **3.4.4 Physical Science, Chemistry, and Physics**

Cross Curriculum Integration: **Technology**

Course Content	Student Performance	Resources	Assessments
A. Observe and describe different types of force and motion. • Describe various types of motions.	• Share knowledge activity: Making an object move	• Scott Foresman Science (Pearson Education, 2006) "Quick Activity" TM p. 298	• Describe how push and pull are used
	• Read "How do Objects Move?" and "Force"	• Scott Foresman Science (Pearson Education, 2006), pp. 302 – 305	• Workbook p. 116, "Checkpoint asses" p. 305, "Scaffolded Questions" TM p. 305
	• Experiment" "Do Heavy Objects fall faster than Light Objects?" (also correlates with Science Standard for Scientific Process 3.2.4-C)	• Scott Foresman Science (Pearson Education, 2006), TM p. 297E	• Prediction and outcome of experiment
	• Experiment: "How do Objects Move on Different Surfaces?" (also correlates with Science Standard for Scientific Process 3.2.4-C)	• Scott Foresman Science (Pearson Education, 2006), TM p. 297E	• Prediction and outcome of experiment

Science Planned Course – Grade 2

Unit: **Transportation**

Content Standard: **Investigate the structure and properties of objects.**

State Curriculum Standard: **3.3.4 Physical Science, Chemistry, and Physics**

Cross Curriculum Integration: **Technology**

Course Content	Student Performance	Resources	Assessments
	• View video: "How Things Move" • Internet website: www.SFSucessNet.com on force	• Educational Videos, 1999 (16 min.) • Scott Foresman Science, (Pearson Education, 2006), TM p. Emil.	• Completed Internet activity • T-char for push and pull

Science Planned Course – Grade 2

Unit: **Transportation**

Content Standard: **Design, create, use, evaluate, and modify systems of Biotechnologies, Information Technologies, and Physical Technologies.**

State Curriculum Standard: **3.6.4 Technology Education**

Cross Curriculum Integration: **Social studies, Technology**

Course Content	Student Performance	Resources	Assessments
A. Know physical technologies of structural design, analysis and engineering, finance, production, marketing, research and design.	• Read text "Technology Helps Us All", "What is Technology?" pp. 398 and 399	• Scott Foresman Science (Pearson Education, 2006)	• Workbook p. 150
• Identify transportation technologies of propelling, structuring, suspending, guiding, controlling, and supporting.	• View video: "Transportation" • Technology link: www.SFSuccesssNet.com on transportation	• Educational videos, Inc. (2004), 18 min.	• Identify uses of the different transportation modes
	• Research a mode of transportation with an illustration	• Appendix T-1, "Complete Book of Transportation" (Scholastic, Inc.)	• Completed activity
• Identify and experiment with simple machines used in transportation.	• Read text "How can Simple Machines Help You Do Work", pp. 314 and 315	• Scott Foresman Science (Pearson Education, 2006)	• Answer question for the "Lesson Checkpoint" p. 315, Workbook p. 119
• Explain how improved transportation systems have changed society.	• Read text "Changes in Transportation" pp. 400 and 401	• Scott Foresman Science (Pearson Education, 2006)	• Answer questions for the "Lesson Checkpoint" p. 401

Science Planned Course – Grade 2

Unit: **Transportation**

Content Standard: **Design, create, use, evaluate, and modify systems of Biotechnologies, Information Technologies, and Physical Technologies.**

State Curriculum Standard: **3.6.4 Technology Education**

Cross Curriculum Integration: **Social Studies, Technology**

Course Content	Student Performance	Resources	Assessments
	• Read "Getting Here and There"	• Houghton, Mifflin Social Studies, Grade 2, 1997, pp. 144 and 145	
	• Read "Travel Through Time" transportation timeline (Social studies Integration)	• Houghton, Mifflin Social Studies, Grade 2, 1997, pp. TM T228 – T30	
	• Create a futuristic mode of Transportation	• Houghton, Mifflin Social Studies, Grade 2, 1997, pp. TM T231	• Created Transportation
	• Identify various transportation vehicles linked to careers and businesses • Play "Concentration" to match	• Index cards with pictures of words of transportation vehicles, matching cards of business/careers (ex. fire truck with fire engine, ambulance with EMT, police car with policeman)	• Correct matches

Science Planned Course – Grade 2

Unit: **Transportation**

Content Standard: **Recognize and evaluate the relationship between technological advances and society**.

State Curriculum Standard: **3.8.4 Science, Technology, and Human Endeavors**

Cross curriculum Integration: **Social Studies**

Course Content	Student Performance	Resources	Assessments
A. Know that people select, create and use Science and Technology and they are limited by social and physical restraints. • Identify and describe positive and negative impacts that influence or result from new tools and techniques.	• Pollution and depletion of natural resources vs. more efficient, timesaving transportation group debate		• T-Chart of pros and cons
• Identify how physical technology (e.g. construction, manufacturing, transportation), informational technology and biotechnology are used to meet human needs.	• Read "What Some Ways Technology Helps Us?" • Brainstorm list of items that show a form of technology at home using chart from TM 395 • Act out and guessing items	• Scott Foresman Science (Pearson, 2006), pp. 394 and 395	• Completed list
	• Create a "How and Where We Travel" chart which classifies" land, water, and air travel (then and now)	• Houghton, Mifflin Social Studies, Grade 2, 1997, pp. TM T232	• Completed chart

Science Planned Course – Grade 2

Unit: **Transportation**

Content Standard: **Recognize and evaluate the relationship between technological advances and society**.

State Curriculum Standard: **3.8.4 Science, Technology, and Human Endeavors**

Cross curriculum Integration: **Social Studies**

Course Content	Student Performance	Resources	Assessments

• Identify interrelationships among technology, people and their world.	• Read "Technology Helps Us All"
	  • "Quick Activity" using magazine pictures of Transportation
	  • Read "Changes in Transportation"
		• Scott Foresman Science (Pearson, 2006) pp. 398 - 399	• Magazine collage
			• Workbook p. 150
			• "Checkpoint Assess" p 401
			• "Scaffolded Questons" TM pp. 399 and 401