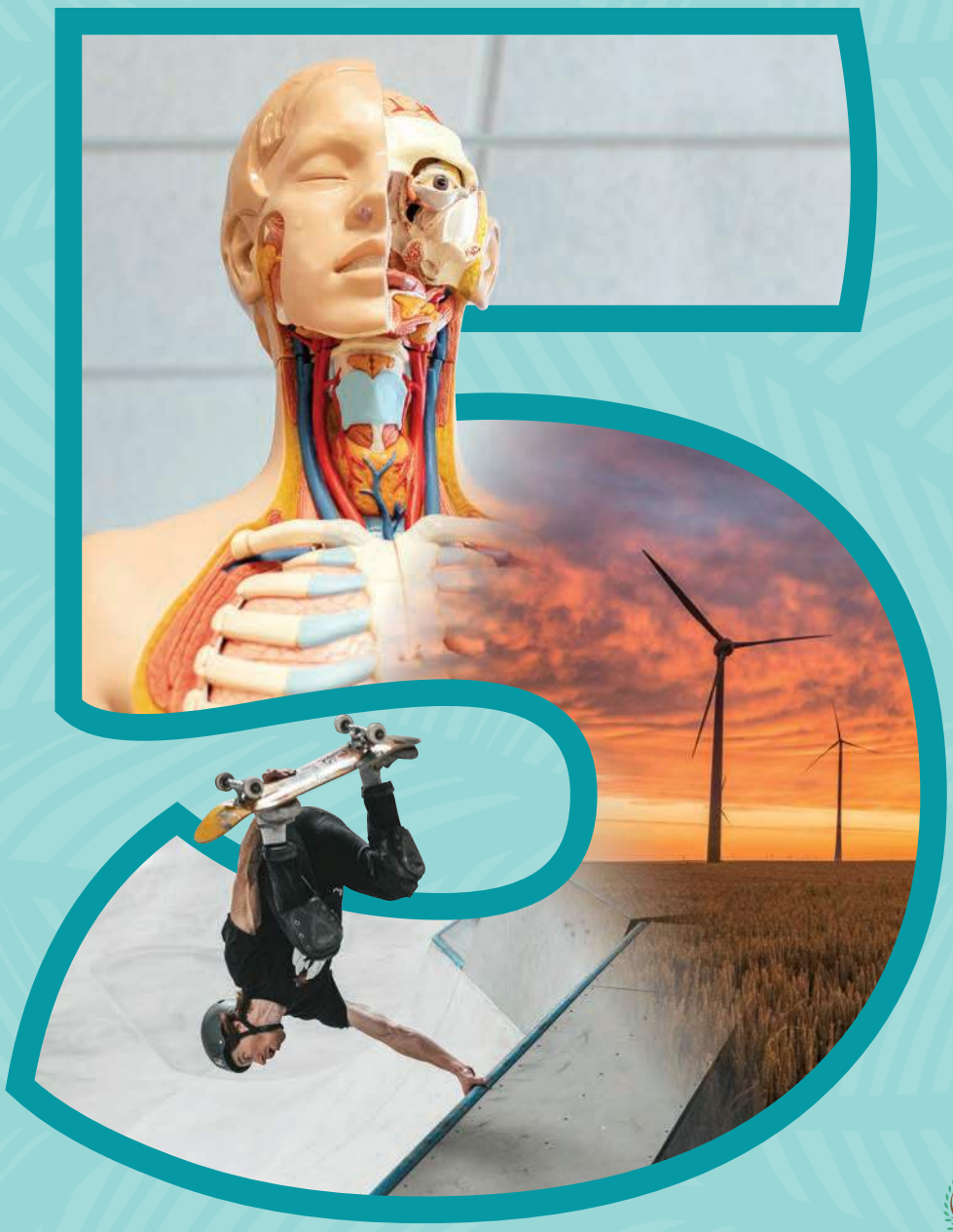
Oak Meadow

5

Science

Assignment Summaries and Learning Assessments



Oak Meadow

Grade 5

Science

Assignment Summaries and Learning Assessments

Oak Meadow

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Lesson 1
Scientific Inquiry

ASSIGNMENT SUMMARY

- ☐ Read "The Scientific Method" and "Bird Beaks as Tools."
- ☐ Collect pictures of birds and group them according to beak type.
- ☐ Make a guess about the bird's diet based on its beak.
- ☐ Observe birds and make predictions about their diets.
- ☐ Experiment: Bird Beaks

Learning Assessment

These assessment rubrics are intended to help track student progress throughout the year. Please remember that these skills continue to develop over time. Parents and teachers can use this space to make notes about the learning the student demonstrates or skills that need work.

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates knowledge of the scientific method				
Demonstrates knowledge of experiment variables				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Sorts and classifies information according to different variables				

Lesson 2

Scientific Ways of Knowing

ASSIGNMENT SUMMARY

- ☐ Read "Scientific Ways of Knowing" and "Frogs."
- ☐ Make a prediction about the local frog population.
- ☐ Consider how humans affect the environment.
- ☐ Complete a science test.
- ☐ Experiment: Frog Population

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates knowledge of the scientific method				
Demonstrates knowledge of experiment variables				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Sorts and classifies information according to different variables				

Lesson 3

Methods of Measurement

ASSIGNMENT SUMMARY

- ☐ Read "Scientific Measurements."
- ☐ Measure a variety of things using metric measurements.
- ☐ Continue collecting data from the frog experiment.
- ☐ Experiment: Wetlands Model

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates knowledge of the scientific method				
Demonstrates knowledge of experiment variables				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Converts between U.S. and metric units of measure				
Measures with accuracy and records accurate measurements				

Lesson 4

Magnification as a Scientific Tool

ASSIGNMENT SUMMARY

- ☐ Read "Using Scientific Instruments."
- ☐ Observe and draw common items under magnification.
- ☐ Compare plant and animal cells.
- ☐ Look at pond water under magnification.
- ☐ Complete a science test.
- ☐ Activity: Make a Thermometer
- ☐ Experiment: Mold Growth

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Sorts and classifies information according to different variables				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Converts between U.S. and metric units of measure				
Demonstrates familiarity with conversions between Fahrenheit and Celsius				
Measures with accuracy and records accurate measurements				

Lesson 5

The Environment

ASSIGNMENT SUMMARY

- ☐ Read "The Environment."
- ☐ Make a list of living and nonliving things.
- ☐ Identify living and nonliving things.
- ☐ Create a forest mural.
- ☐ Make a list of things you can't live without.
- ☐ Compare the needs of different living things.
- ☐ Compare animal and human needs in different environments.
- ☐ List the possible effects of human interactions with nature.
- ☐ Learn about different types of recycling.
- ☐ Activity: Make a Compost Pile
- ☐ Experiment: Decomposition

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Differentiates between living and nonliving things				
Identifies common needs between living things				
Demonstrates awareness of possible effects of human interactions with nature				
Demonstrates knowledge of decomposition and decomposers				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 6

The Web of Life

ASSIGNMENT SUMMARY

- ☐ Read "Energy in Ecosystems."
- ☐ List the food chain for different types of food.
- ☐ Draw a food web.
- ☐ List plants and animals you would raise on a farm.
- ☐ Complete the science test.
- ☐ Write the results of your mold experiment.

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Differentiates between producers, consumers, scavengers, and decomposers				
Demonstrates knowledge of food chains and food webs				
Shows awareness of the importance of diversity in an ecosystem				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 7

The Balance of Nature

ASSIGNMENT SUMMARY

- ☐ Read "The Balance of Nature."
- ☐ Show how an animal's habitat helps protect it.
- ☐ Consider how to make beneficial changes to a habitat.
- ☐ Learn how to help local wildlife.
- ☐ Identify examples of cooperation and competition.
- ☐ Show the natural camouflage of an animal's native habitat.
- ☐ Activity: Bird Feeder and Birdbath

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Shows understanding of beneficial and disruptive changes to a habitat				
Identifies examples of cooperation and competition in an ecosystem				
Demonstrates knowledge of food chains and food webs				
Shows awareness of the importance of diversity in an ecosystem				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				

SKILLS (*continued*)	**Developing**	**Consistent**	**Competent**	**Notes**
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 8

Animal Habits and Habitats

ASSIGNMENT SUMMARY

- ☐ Read "Animal Habits and Habitats."
- ☐ Identify local and endangered turtle species.
- ☐ Research and write about bats in your area.
- ☐ Report findings of decomposition experiment.
- ☐ Complete a science test.
- ☐ Experiment: Ant Behavior

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates knowledge of endangered species				
Shows familiarity with animal habits and habitats				
Demonstrates knowledge of food chains and food webs				
Shows awareness of the importance of diversity in an ecosystem				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 9

Wildlife Conservation

ASSIGNMENT SUMMARY

- ☐ Read "Wildlife Conservation."
- ☐ Consider the relationship between spiders and mosquitoes.
- ☐ Describe a plan for protecting living creatures.
- ☐ Design a zoo habitat for Earthlings.
- ☐ Identify producers and consumers, predators and prey.
- ☐ Describe a food chain of predators and prey.
- ☐ Classify yourself in terms of the food chain.
- ☐ Draw a food chain that shows the flow of energy.
- ☐ Activity: Spider Observation

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Differentiates between producers, consumers, predators, and prey				
Demonstrates knowledge of endangered species				
Shows familiarity with animal habits and habitats				
Demonstrates knowledge of food chains and food webs				
Shows awareness of the importance of diversity in an ecosystem				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 10

Forest and Desert Biomes

ASSIGNMENT SUMMARY

- ☐ Read "Forest and Desert Biomes."
- ☐ Begin two-week biome observation project.
- ☐ Research and list animals living in a forest biome.
- ☐ List plants in a forest biome.
- ☐ Identify and draw two types of evergreen trees.
- ☐ List plants and animals of the desert.

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates knowledge of plants and animals of the forest				
Demonstrates knowledge of plants and animals of the desert				
Shows familiarity with animal habits and habitats				
Demonstrates knowledge of food chains and food webs				
Shows awareness of the importance of diversity in an ecosystem				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 11

Tundra, Grasslands, and Ocean Biomes

ASSIGNMENT SUMMARY

- ☐ Read "Tundra, Grasslands, and Ocean Biomes."
- ☐ Complete two-week biome observation project.
- ☐ Give examples of animals and plants in a tundra biome.
- ☐ Describe the animals and plants in a grasslands biome.
- ☐ Write an imaginative story set in a prairie biome.
- ☐ Write about the plants and animals of the ocean.
- ☐ Consider the ocean as a source of drinking water.
- ☐ Learn about protected land in your area.
- ☐ Complete a science test.

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates knowledge of plants and animals of the tundra				
Demonstrates knowledge of plants and animals of the grasslands				
Demonstrates knowledge of plants and animals of the ocean				
Shows familiarity with animal habits and habitats				
Demonstrates knowledge of food chains and food webs				
Shows awareness of the importance of diversity in an ecosystem				
Draws detailed, labeled illustrations				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 12

Bodies of Water

ASSIGNMENT SUMMARY

- ☐ Read "Bodies of Water."
- ☐ Do an observation of a body of water.
- ☐ Choose a project about the reading.
- ☐ Learn about caves and caverns.
- ☐ List the ways water is used each day.
- ☐ Learn about water treatment or water supply.
- ☐ Complete two activities to help protect the water supply.
- ☐ Complete a science test.
- ☐ Activity: Water Usage
- ☐ Experiment: Evaporation

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates knowledge of the water cycle				
Demonstrates knowledge of water conservation techniques				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 13

Astronomy

ASSIGNMENT SUMMARY

- ☐ Read "Astronomy."
- ☐ Begin keeping a sky journal, and create a star chart.
- ☐ Learn a constellation myth.
- ☐ Create a story about Stonehenge.
- ☐ Compare the theories of Ptolemy and Copernicus.
- ☐ Describe a time when you spoke up for what you believed.
- ☐ Compare the movement of the moon and stars.
- ☐ Activity: Make a Sundial

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates knowledge of early ideas in astronomy				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 14

The Solar System and Beyond

ASSIGNMENT SUMMARY

- ☐ Read "The Solar System and Beyond."
- ☐ Make up a sentence to remember the order of the planets.
- ☐ Demonstrate the relative size of planets.
- ☐ Record notes in your sky journal.
- ☐ Complete the science test.
- ☐ Activity: Solar System Model

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates knowledge of the solar system				
Shows awareness of relative size of the planets				
Differentiates between Earth's axial rotations and revolutions around the sun				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 15

Pollution and Earth's Resources

ASSIGNMENT SUMMARY

- ☐ Read "Pollution and Earth's Resources."
- ☐ Identify causes of pollution and ways to help minimize it.
- ☐ Choose an assignment related to noise pollution.
- ☐ Learn about waste disposal and recycling.
- ☐ Make a list of toxic household products and Earth-friendly alternatives.
- ☐ Create a poster of renewable and nonrenewable resources.
- ☐ Record notes in your sky journal.
- ☐ Activity: Air Pollution

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Differentiates between renewable and nonrenewable resources				
Identifies sources of pollution				
Demonstrates familiarity with causes of ozone depletion				
Identifies Earth-friendly alternatives to toxic products				
Demonstrates knowledge of the solar system				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 16

Energy Alternatives

ASSIGNMENT SUMMARY

- ☐ Read "Energy Alternatives."
- ☐ Find ways to conserve energy.
- ☐ Learn about environmentally friendly building.
- ☐ Keep a log of car usage, and suggest alternatives.
- ☐ Record notes in your sky journal.
- ☐ Complete a science test.

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates understanding of energy conservation				
Identifies renewable energy sources				
Demonstrates familiarity with environmentally friendly housing				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 17

Conserving Earth's Resources

ASSIGNMENT SUMMARY

- ☐ Read "Recycling" and "Food and Hunger."
- ☐ Keep track of what you eat, and assess your diet.
- ☐ Complete an assignment related to the reading.
- ☐ List recycled and plastic materials in the home.
- ☐ Reflect on how to take care of Earth.

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates understanding of recycling				
Identifies elements of Earth stewardship				
Shows understanding of connection between food and healthy environment				
Tracks the movement of the moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 18

First Semester Review

ASSIGNMENT SUMMARY

☐ Review the material in the first semester.

☐ Continue to record the movement of the stars in your sky journal.

☐ Complete the first semester exam.

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates knowledge of the scientific method				
Shows understanding of controlled experiments and variables				
Explains the importance of indicator species				
Demonstrates knowledge of function of wetlands				
Shows understanding of food chain and food web				
Differentiates between producer, consumer, scavenger, and decomposer				
Understands importance of photosynthesis				
Demonstrates knowledge of how humans can affect the balance of nature				
Demonstrates knowledge of animal habits and habitats				
Shows understanding of impact of disruptions to the food chain				
Shows familiarity with how humans can be impacted with disruptions to the animal food chain				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Identifies and describes five main biomes				
Demonstrates knowledge of the water cycle				
Shows familiarity with planets in the solar system				
Demonstrates connection between Earth's tilt and seasons				
Identifies connection between plants and animals in terms of oxygen and carbon dioxide exchange				

Lesson 19

Weather Patterns

ASSIGNMENT SUMMARY

- ☐ Read "Weather Patterns."
- ☐ Collect weather folklore and find a scientific basis for each saying.
- ☐ Learn and write about the jet stream.
- ☐ Create a weather station to record data.
- ☐ Compare weather predictions to actual weather.
- ☐ Continue tracking the movement of the stars.
- ☐ Activity: Wind Vane

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates understanding of meteorological concepts				
Tracks weather over time				
Identifies elements of Earth stewardship				
Demonstrates knowledge of the solar system				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 20

Clouds and Storms

ASSIGNMENT SUMMARY

- ☐ Read "Clouds and Storms."
- ☐ Continue to record weather data and make predictions.
- ☐ Compare weather predictions to actual weather.
- ☐ Illustrate the rain shadow effect.
- ☐ Make a list of what to do in case of a tornado.
- ☐ Research blizzards in the last 100 years.
- ☐ Complete a science test.
- ☐ Activity: Dew Point
- ☐ Experiment: Cloud in a Bottle

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates understanding of meteorological concepts				
Tracks weather over time				
Predicts weather based on observations				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 21

Plant and Animal Cells

ASSIGNMENT SUMMARY

- ☐ Read "Life Science."
- ☐ Differentiate living and nonliving things based on characteristics of life.
- ☐ Complete a crossword puzzle.
- ☐ Activity: Edible Cell Model

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates knowledge of characteristics of life				
Identifies the function of various parts of a cell				
Demonstrates understanding of meteorological concepts				
Tracks weather over time				
Predicts weather based on observations				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 22

Classification Systems

ASSIGNMENT SUMMARY

- ☐ Read "Classification Systems."
- ☐ Make up a way to remember the classification system.
- ☐ Research platypus classification.
- ☐ Learn about bacteria.
- ☐ List examples of classification in the community.
- ☐ Complete the science test.
- ☐ Activity: Classified Information

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates knowledge of classification system for living organisms				
Identifies examples of organisms in different kingdoms				
Demonstrates knowledge of characteristics of life				
Identifies the function of various parts of a cell				
Predicts weather based on observations				
Tracks the movement of the moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 23

Body Tissues

ASSIGNMENT SUMMARY

- ☐ Read "Body Tissues."
- ☐ Draw and label a neuron.
- ☐ Choose a fingerprint project.
- ☐ Make a list of family blood types.
- ☐ Describe the purpose of five different organs.
- ☐ Activity: Muscle Model

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates knowledge of classification system for living organisms				
Identifies examples of different types of tissues				
Identifies the purpose of various body organs				
Demonstrates knowledge of characteristics of life				
Identifies the function of various parts of a cell				
Predicts weather based on observations				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 24

Body Systems

ASSIGNMENT SUMMARY

- ☐ Read "Body Systems."
- ☐ Write a paragraph about being sick.
- ☐ Learn about where waste products go when they leave the body.
- ☐ Describe the journey of a piece of food after it is eaten.
- ☐ Continue tracking constellations in the sky.
- ☐ Complete a science test.
- ☐ Activity: Beady Neuron
- ☐ Activity: Three-Dimensional Brain
- ☐ Activity: Brain Cap

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates knowledge of classification system for living organisms				
Identifies examples of different types of body systems				
Identifies the purpose of various body organs				
Demonstrates knowledge of characteristics of life				
Identifies the function of various parts of a cell				
Predicts weather based on observations				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 25

Body Structures

ASSIGNMENT SUMMARY

- ☐ Read "Body Structures."
- ☐ Learn about penguins.
- ☐ Make an octopus and an undersea mural.
- ☐ Complete a science test.
- ☐ Activity: Socktopus

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Shows understanding between form and function				
Demonstrates knowledge of classification system for living organisms				
Identifies examples of different types of body systems				
Identifies the purpose of various body organs				
Demonstrates knowledge of characteristics of life				
Identifies the function of various parts of a cell				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 26

Form and Function

ASSIGNMENT SUMMARY

- ☐ Write an animal research report.
- ☐ Create visual elements for your report.
- ☐ Give an oral presentation.

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Research report: Uses multiple sources to collect information				
Research report: Presents information in a logical order				
Research report: Uses visual elements to enhance text				
Research report: Compiles list of sources				
Shows understanding between form and function				
Demonstrates knowledge of classification system for living organisms				
Identifies examples of different types of body systems				
Identifies the purpose of various body organs				
Demonstrates knowledge of characteristics of life				
Identifies the function of various parts of a cell				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 27

Physics

ASSIGNMENT SUMMARY

- ☐ Read "Physical Science."
- ☐ Find examples of physics in earlier lessons.
- ☐ Find examples of physics in daily life.
- ☐ Calculate your weight on other planets.
- ☐ Order the planets according to mass.
- ☐ Demonstrate what would happen to the moon without gravity.
- ☐ Experiment: Properties of Gravity

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Shows familiarity with early theories of physics				
Identifies examples of physics in environment				
Demonstrates knowledge of gravity				
Shows understanding between form and function				
Demonstrates knowledge of classification system for living organisms				
Identifies examples of different types of body systems				
Identifies the purpose of various body organs				
Demonstrates knowledge of characteristics of life				
Identifies the function of various parts of a cell				
Tracks the movement of moon and stars over time				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 28

Energy

ASSIGNMENT SUMMARY

- ☐ Read "Energy."
- ☐ Identify examples of energy.
- ☐ Find examples of physics in daily life.
- ☐ Explain the difference between temperature scales.
- ☐ Record the temperature over time.
- ☐ Illustrate how air convection relates to a developing thunderstorm.
- ☐ Identify different types of heat transfer.
- ☐ Complete a science test.
- ☐ Activity: Conduction and Convection of Heat
- ☐ Experiment: Heat Trap

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Shows familiarity with properties of heat energy				
Identifies examples of physics in environment				
Demonstrates knowledge of three states of matter				
Shows understanding between form and function				
Demonstrates knowledge of classification system for living organisms				
Identifies examples of different types of body systems				
Identifies the purpose of various body organs				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Demonstrates knowledge of characteristics of life				
Identifies the function of various parts of a cell				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 29

Expansion, Contraction, and Properties of Water

ASSIGNMENT SUMMARY

- ☐ Read "Expansion and Contraction" and "Special Properties of Water."
- ☐ Choose a way to demonstrate expansion and contraction.
- ☐ Explain what would happen if a pond froze from the bottom up.
- ☐ Consider the reasons behind road-building practices.
- ☐ Explore the R-value of different building materials.
- ☐ Activity: Expansion and Contraction
- ☐ Activity: Surface Tension
- ☐ Experiment: Expansion and Contraction in a Gas

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Shows familiarity with properties of expansion and contraction				
Applies physics knowledge to practical applications				
Demonstrates knowledge of properties of water				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 30

Light Energy

ASSIGNMENT SUMMARY

- ☐ Read "Light Energy."
- ☐ Learn about organisms that live where there is no light.
- ☐ Experiment with a color wheel.
- ☐ Identify objects that are transparent, translucent, and opaque.
- ☐ Continue tracking the movement of stars.
- ☐ Complete the science test.
- ☐ Activity: Reflection and Refraction

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Shows familiarity with properties of visible light				
Applies physics knowledge to practical applications				
Differentiates between different types of light waves				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 31

Sound Waves

ASSIGNMENT SUMMARY

- ☐ Read "Sound Waves."
- ☐ Demonstrate compression waves with a Slinky.
- ☐ Explain concerns about using low frequency sound waves in the ocean.
- ☐ Compare how sound travels through different mediums.
- ☐ Activity: Playing with Sound

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Shows familiarity with properties of sound				
Applies physics knowledge to practical applications				
Compares how sound travels through different mediums				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				
Records observations in detail in text				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 32

Electricity and Magnetism

ASSIGNMENT SUMMARY

- ☐ Read "Electricity and Magnetism."
- ☐ Identify items that use AC power and DC power.
- ☐ Demonstrate an electromagnetic field.
- ☐ Explain how electricity is conducted or insulated.
- ☐ Complete a science test.
- ☐ Activity: Static Electricity
- ☐ Activity: Lemon Battery
- ☐ Experiment: Electrical Circuit

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Shows familiarity with properties of electricity				
Applies physics knowledge to practical applications				
Differentiates between static and current electricity				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 33

Air Pressure

ASSIGNMENT SUMMARY

- ☐ Read "Air Pressure."
- ☐ Experiment with Bernoulli's principle.
- ☐ Draw an airplane design, and explain how its wing shape influences flight.
- ☐ Choose an activity related to flight.
- ☐ Activity: Air Pressure
- ☐ Activity: Airfoil
- ☐ Experiment: Bernoulli Ball

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Shows familiarity with properties of air pressure				
Demonstrates understanding of aerodynamics				
Applies physics knowledge to practical applications				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 34

Technology and Design

ASSIGNMENT SUMMARY

- ☐ Read "Technology and Design."
- ☐ Explain a problem-solving technique.
- ☐ Use inventive thinking to see a problem in a new way.
- ☐ Research three inventions.
- ☐ Explain how a well-known invention came about.
- ☐ List inventions with positive or negative environmental impact.
- ☐ Summarize and conclude your sky journal.
- ☐ Activity: Invent!

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates creative problem-solving				
Shows familiarity with process of invention				
Applies physics knowledge to practical applications				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Follows the steps of the scientific method				
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 35

Diving Deeper into Physics

ASSIGNMENT SUMMARY

- ☐ Read "Diving Deeper into Physics."
- ☐ Experiment with your center of gravity.
- ☐ Explain how friction works.
- ☐ Research an electric fish.
- ☐ Choose a topic to explore.
- ☐ Complete your invention.
- ☐ Activity: Bending Light

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates creative problem-solving				
Shows familiarity with process of invention				
Applies physics knowledge to practical applications				
Tracks the movement of moon and stars over time				
Draws detailed, labeled illustrations				
Makes clear and detailed comparisons				
Demonstrates knowledge of the scientific method				
Displays focused observation skills				
Forms a hypothesis based on previous knowledge				
Follows the steps of the scientific method				

SKILLS (*continued*)	Developing	Consistent	Competent	Notes
Records observations in detail in text				
Draws conclusions based on results				
Reflects on experiment process and ways to gain more accurate results				
Measures with accuracy and records accurate measurements				

Lesson 36

Science Review and Exam

ASSIGNMENT SUMMARY

☐ Review what you have learned.

☐ Complete the final exam.

Learning Assessment

SKILLS	Developing	Consistent	Competent	Notes
Demonstrates knowledge of meteorology				
Shows familiarity with weather terms and meaning				
Shows understanding of connection between climate, geography, and weather patterns				
Identifies examples of organisms in each of the five kingdoms				
Differentiates between different types of body tissue				
Explains body processes				
Shows understanding of different types of energy				
Demonstrates knowledge of methods of heat transfer				
Explains concepts of expansion and contraction				
Identifies examples of different types of light waves				
Ranks sounds according to frequency				
Identifies inventions related to electricity				
Demonstrates knowledge of aerodynamics				
Reflects on learning experiences				