# PreK-6

### **PreK**

#### **Physical Science Properties of Matter**

9. Sort objects using one characteristic (PK-CS-P2) (PS-E-A1)

#### **Life Science - Characteristics of Organisms**

20. Give examples of different kinds of plants and different kinds of animals (PK-CS-L1)

#### **Life Science - Life Cycles of Organisms**

22. Learn about animals and plants through nonfiction literature. (PK-CS-L1) (LS-E-B1)

## **Life Science - Organisms and Their Environments**

24. Describe plants and animals in the schoolyard or home environments. (PK-CS-L1) (LS-E-C1)

#### Kindergarten

## **Life Science - Characteristics of Organisms**

25. Identify easily observable variations within types of plants and animals (e.g., features of classmates, varieties of trees, breeds of dogs) (LS-E-A4)

#### **Life Science - Life Cycles of Organisms**

28. Observe life cycles and describe changes (e.g., humans, dogs, insects) (LS-E-B1)

#### **Earth and Space Science**

30. Distinguish between areas of Earth covered by land and water (ESS-E-A2)



#### 1st Grade

#### Science as Inquiry – Understanding Scientific Inquiry

12. Explain and give examples of how scientific discoveries have affected society (SI-E-B6)

#### **Life Science - Characteristics of Organisms**

- 26. Describe the differences between plants and animals. (LS-E-A1)
- 27. Identify what animals and plants need to grow and develop (LS-E-A1)
- 28. Describe the characteristics of living (biotic) and nonliving (abiotic) things (LS-E-A2)

### **Life Science - Life Cycles of Organisms**

- 30. Record and share observations of changes in developing plants (LS-E-B1)
- 31. Describe how animals and their offspring are similar and how they are different (LS-E-B3)

#### **Life Science - Organisms and Their Environments**

- 32. Describe features of some animals that benefit them in their environments (LS-E-C1)
- 34. Record evidence of plants and animals in the schoolyard or other environments (LS-E-C2)

## Earth and Space Science - Properties of Earth Material

- 35. Examine soils to determine that they are often found in layers (ESS-E-A1)
- 37. Illustrate how water changes from one form to another (e.g., freezing, melting, evaporating) (ESS-E-A-3)



# PreK-6

# 2<sup>nd</sup> Grade

## Science as Inquiry – Understanding Scientific Inquiry

13. Explain and give examples of how scientific discoveries have affected society (SI-E-B6)

#### **Life Science – Characteristics of Organisms**

- 27. Match the appropriate food source and habitat for a variety of animals (e.g., cows/grass/field, fish/tadpoles/water) (LS -E-A1)
- 28. Describe structures of plants (e.g., roots, leaves, stems, flowers, seeds) (LS-E-A3)
- 29. Compare differences and similarities among a variety of seed plants (LS-E-A3)
- 30. Identify physical characteristics of organisms (e.g., worms, amphibians, plants) (LS-E-A4)
- 31. Identify and discuss the arrangement of the food pyramid (LS-E-A6)

### **Life Science - Life Cycles of Organisms**

33. Compare the life cycles of selected organisms (e.g., mealworm, caterpillar, tadpole) (LS-E-C1)

#### **Life Science – Organisms and Their Environments**

- 35. Identify the components of a variety of habitats and describe how organisms in those habitats depend on each other (LS-E-C1)
- 36. Observe and record the properties of rocks, minerals, and soils gathered from their surroundings (e.g., color, texture, odor) (ESS-E-A1)

#### Earth and Space Science – Properties of Earth Material

37. Compare bodies of water found on Earth (e.g., oceans, seas, lakes, rivers, glaciers) (ES-E-A2)

- 45. Locate and identify plants and animals within an ecosystem (SE-E-A2)
- 46. Illustrate and describe a simple food chain located within an ecosystem (SE-E-A2)
- 47. Identify the sun as the primary energy source in a food chain (SE-E-A2)
- 48. Describe a variety of activities related to preserving the environment (SE-E-A3)
- 50. Describe ways in which habitat loss or change can occur as a result of natural events or human impact (SE-E-A5)
- 51. Describe and give examples of threatened or endangered species (SE-E-A5)





# PreK-6

## 3<sup>rd</sup> Grade

# Science as Inquiry - Understanding Scientific Inquiry

17. Explain and give examples of how scientific discoveries have affected society (SI-E-B6)

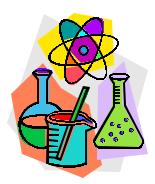
#### **Life Science – Characteristics of Organisms**

- 35. Compare structures (parts of the body) in a variety of animals (e.g., fish, mammals, reptiles, amphibians, birds, and insects) (LS -E-A3)
- 36. Compare structures (e.g., roots, leaves, stems, flowers, seeds) and their functions in a variety of plants (LS-E-A3)
- 37. Describe how plant structures enable the plant to meet basic needs (LS-E-A4)
- 38. Classify groups of organisms based on common characteristics (LS-E-A4)
- 39. Compare organisms from different groups (e.g., birds with mammals, terrestrial plants with aquatic plants) (LS-E-A4)

## **Earth and Space Science – Properties of Earth Materials**

- 46. Describe earth processes that affected selected features in students' neighborhoods (e.g., rusting, weathering, erosion) (ESS-E-A1)
- 48. Identify examples of the processes of the water cycle. (e.g., evaporation, condensation, precipitation, collection of runoff) (ESS-E-A3)

- 57. Describe the interrelationships of living (biotic) and nonliving (abiotic) components within various ecosystems (e.g., terrarium, swamp, back yard) (SE- E-A1)
- 58. Describe how humans have had negative and positive effects on organisms and their environments (SE-E-A3) (SE-E-A5)
- 61. Explain how selected animals once classified as endangered have recovered (SE-E-A5)
- 62. Identify animals in Louisiana that have recovered and that are no longer considered endangered (SE-E-A5)





# PreK-6

# 4<sup>th</sup> Grade

#### Science as Inquiry – Understanding Scientific Inquiry

- 21. Use evidence from previous investigations to ask additional questions and to initiate further explorations (SI-E-B6)
- 22. Explain and give examples of how scientific discoveries have affected society (SI-E-B6)

## **Life Science - Characteristics of Organisms**

- 40. Explain the functions of plant structures in relation to their ability to make food through photosynthesis (e.g., roots, leaves, stems, flowers, seeds) (LS -E-A3)
- 41. Describe how parts of animals' bodies are related to their functions and survival (e.g., wings/flying, webbed feet/swimming) (LS-E-A3)

## **Life Science – Life Cycles of Organisms**

- 45. Identify reproductive structures in plants and describe the functions of each (LS-E-B1)
- 46. Describe how some plants can be grown from a plant part instead of a seed (LS-E-B1)
- 47. Sequence stages of life cycles of various organisms, including seed plants (LS-E-B1)
- 48. Classify examples of plants and animals based on a variety of criteria (LS -E-B2)
- 49. Compare similarities of plants and animals based on a variety of criteria (LS -E-B2)

#### **Life Science - Organisms and Their Environments**

- 50. Explain how some organisms in a given habitat compete for the same resources (LS-E-C1)
- 51 Describe how organisms can modify their environments to meet their needs (e.g., beavers making dams) (LS-E-C1)
- 52. Describe how some plants and animals have adapted to their habitats (LS-E-C2)
- 53. Identify the habitat in which selected organisms would most likely live and explain how specific structures help organisms to survive (LS-E-C2)
- 54. Describe the effect of sudden increases or decreases of one group of organisms upon other organisms in the environment (LS -E-C3)

## Earth and Space Science – Properties of Earth Materials

- 56. Investigate the properties of soil (e.g., color, texture, capacity to retain water, ability to support plant growth) (ESS-E-A1)
- 58. Draw, label, and explain the components of the water cycle (ESS-E-A3)
- 63. Demonstrate and explain how Earth's surface is changed as a result of slow and rapid processes (e.g., sand dunes, canyons, volcanoes, earthquakes) (ESS-E-A5) (ESS-E-A1)

- 70. Design an ecosystem that includes living (biotic) and nonliving (abiotic) components and illustrate interdependence (SE-E-A1)
- 71. Describe and explain food chains/webs and the directional flow of energy in various ecosystems (e.g., construct a model, drawing, diagram, graphic organizer) (SE-E-A2)
- 72. Predict and describe consequences of the removal of one component in a balanced ecosystem (e.g., consumer, herbivores, nonliving component) (SE-E-A2)





# PreK-6

# 5<sup>th</sup> Grade

## Science as Inquiry - Understanding Scientific Inquiry

- 38. Explain that, through the use of scientific processes and knowledge, people can solve problems, make decisions, and form new ideas (SI-M-B6)
- 39. Identify areas in which technology has changed human lives (e.g., transportation, communication, geographic information systems, DNA fingerprinting) (SI-M-B7)
- 40. Evaluate the impact of research on scientific thought, society, and the environment (SI-M-B7)

#### Physical Science – Transformations of Energy

12. Identify the Sun as Earth's primary energy source and give examples (e.g., photosynthesis, water cycle) to support that conclusion (PS-M-C3)

#### **Life Science – Structure and Function of Living Systems**

- 18. Describe metamorphosis of an amphibian (e.g. frog) (LS-M-A3)
- 19. Describe the processes of photosynthesis and respiration in green plants (LS-M-A4)

# **Life Science – Population and Ecosystems**

- 22. Develop and use a simple dichotomous key to classify common plants and animals (LS-M-C1)
- 23. Construct food chains that could be found in ponds, marshes, oceans, forests, or meadows (LS-M-C2)
- 24. Describe the roles of producers, consumers, and decomposers in a food chain (LS-M-C2)
- 25. Compare food chains and food webs (LSM-C2)
- 26. Identify and describe ecosystems of local importance (LS-M-C3)
- 27. Compare common traits of organisms within major ecosystems (LS-M-C3)
- 28. Explain and give examples of predator/prey relationships (LS-M-C4)

#### **Life Science – Adaptations of Organisms**

29. Describe adaptations of plants and animals that enable them to thrive in local and other natural environments (LS-M-D1)

#### Earth and Space Science - Structure of the Earth

- 30. Identify organic and inorganic matter in soil samples with the aid of a hand lens or microscope. (ESS-M-A4)
- 32. Demonstrate the results of constructive and destructive forces using models or illustrations (ESS-M-A7)
- 33. Identify processes that prevent or cause erosion (ESS-M-A7)
- 34. Identify the components of the hydrosphere (ESS-M-A11)

- 48. Determine the ability of an ecosystem to support a population (carrying capacity) by identifying the resources needed by that population (SE-M-A2)
- 50. Describe the consequences of several types of human activities on local ecosystems (e.g., polluting streams, regulating hunting, introducing nonnative species) (SE-M-A4)
- 51. Describe naturally occurring cycles and identify where they are found (e.g., carbon cycle, nitrogen cycle, water cycle, oxygen cycle) (SE-M-A7)





# PreK-6

# 6<sup>th</sup> Grade

#### Science as Inquiry – Understanding Scientific Inquiry

- 38. Explain that, through the use of scientific processes and knowledge, people can solve problems, make decisions, and form new ideas (SI-M-B6)
- 39. Identify areas in which technology has changed human lives (e.g., transportation, communication, geographic information systems, DNA fingerprinting) (SI-M-B7)
- 40. Evaluate the impact of research on scientific thought, society, and the environment (SI-M-B7)

- 42. Identify energy types from their source to their use and determine if the energy types are renewable, nonrenewable, or inexhaustible (SE-M-A6)
- 43. Explain how the use of different energy resources affects the environment and the economy (SE-M-A6)
- 44. Explain how an inexhaustible resource can be harnessed for energy production (SE-M-A6)
- 45. Describe methods for sustaining renewable resources (SE-M-A6)
- 46. Identify ways people can reuse, recycle, and reduce the use of resources to improve and protect the quality of human life (SE-M-A6)
- 47. Illustrate how various technologies influence resource use in an ecosystem (e.g., forestry management, soil conservation, fishery improvement) (SE-M-A8)



