

# Course Syllabus

## Science, TN: Grade 1

Jefferson County Schools Curriculum, Final  
Jefferson County Schools

---

The Terra Nova Multiple Assessments Battery for Science "measures knowledge of key concepts and facility with science process skills. By applying scientific concepts to objects and situations that are familiar to them, students draw connections between what they learn in the classroom and what they find in their own lives. Engaging graphics, photographs, and page designs typify science instructional materials and invite students to participate fully in the test.

The test covers the traditional core areas of science - inquiry, physical science, life science, Earth and space sciences - and adds science and technology, science in personal and social perspectives, and the history and nature of science, as suggested in the National Science Education Standards. Implicit in many questions is the measurement of higher-order thinking skills - the student's ability to analyze, infer, synthesize, and evaluate."

The Tennessee Science Curriculum Standards provide standards, performance indicators, and accomplishments for students in science.

The Terra Nova Multiple Assessments assess students in first grade (Level 11).

The Tennessee Science Curriculum Standards provide standards, performance indicators, and accomplishments for students in first grade.

### Earth and Space Science

The Earth and Space Science unit addresses the composition, structure, exploration, and history of the earth and space. Topics include plate tectonics, the atmosphere, geological cycles and processes, weather, climate, the solar system, and the universe.

The Earth and Space Science unit addresses the composition, structure, exploration, and history of the earth and space. Topics include plate tectonics, the atmosphere, geological cycles and processes, weather, climate, the solar system, and the universe.

The Earth and Space Science unit addresses the composition, structure, exploration, and history of the earth and space. Topics include plate tectonics, the atmosphere,

geological cycles and processes, weather, climate, the solar system, and the universe.

- The learner will be able to (IMPORTANT) recognize geological features and distinguish between land and water environments.
- The learner will be able to (IMPORTANT) identify that a variety of earth materials exist which have properties that can be measured and observed and use these properties to distinguish among a variety of earth materials.
- The learner will be able to (ESSENTIAL) develop an understanding of the various changes to the earth and sky.
- The learner will be able to (IMPORTANT) identify that the sun provides a main source of heat and light for the earth and describe the effect of the sun's energy on different materials.
- The learner will be able to (IMPORTANT) identify that there are instruments for observing objects in the sky during the day and at night.
- The learner will be able to (IMPORTANT) recognize that earth materials can be recycled or conserved and identify the ways in which the earth's resources are beneficial to man.
- The learner will be able to (IMPORTANT) identify that the closest object in the sky to the earth is the moon.
- The learner will be able to (IMPORTANT) distinguish between objects visible in the sky during the day and those visible at night.
- The learner will be able to (ESSENTIAL) develop an understanding of the objects in the sky.
- The learner will be able to (IMPORTANT) observe and observe the position of the sun at different times during the day.
- The learner will be able to (IMPORTANT) identify that events in the universe occur in predictable patterns.

# Course Syllabus

## Science, TN: Grade 1

Jefferson County Schools Curriculum, Final  
Jefferson County Schools

---

- The learner will be able to (IMPORTANT) recognize daily and seasonal changes in weather and understand that weather conditions are constantly changing.
- The learner will be able to (IMPORTANT) recognize the appropriate instrument used to measure temperature, precipitation, wind speed, and wind direction.
- The learner will be able to (IMPORTANT) describe seasonal weather patterns.
- The learner will be able to (IMPORTANT) recognize that temperature, wind conditions, and precipitation are associated with weather and can be measured with tools and instruments.
- The learner will be able to (IMPORTANT) relate temperature, precipitation, and wind conditions with different types of weather.

### Life Science

The Life Science unit addresses the characteristics and cycles of and relationships between living things and their environments. Topics include cellular organization, classification, ecosystems, genetics, and human health issues.

The Life Science unit addresses the characteristics and cycles of and relationships between living things and their environments. Topics include cellular organization, classification, ecosystems, genetics, and human health issues.

The Life Science unit addresses the characteristics and cycles of and relationships between living things and their environments. Topics include cellular organization, classification, ecosystems, genetics, and human health issues.

- The learner will be able to (IMPORTANT) observe and identify how plants and animals of the same kind can be different from one another.
- The learner will be able to (IMPORTANT) identify that living things are composed of smaller parts and use magnifiers to observe these parts.

- The learner will be able to (IMPORTANT) identify that the small parts that make up an organism contribute to the performance and well being of the whole organism and observe and describe what happens when an object loses a part.
- The learner will be able to (IMPORTANT) examine interrelationships among plants, animals, and their environments and gather information about organisms that inhabit specific ecosystems.
- The learner will be able to (IMPORTANT) recognize that living things have features that helps them to survive in different environments and identify the typical habitat of an organism.
- The learner will be able to (IMPORTANT) identify the basic needs living things require for survival (e.g., food, water, sunlight, air).
- The learner will be able to (IMPORTANT) investigate the surrounding environment using the senses.
- The learner will be able to (IMPORTANT) recognize that organisms use their senses to interact with the environment around them.
- The learner will be able to (IMPORTANT) provide examples of pollution in a specific environment and identify that pollution can impact the environment and the organisms that live in it.
- The learner will be able to (ESSENTIAL) understand behavioral and/or structural adaptations.
- The learner will be able to (ESSENTIAL) understand that various living things live in various habitats.
- The learner will be able to (ESSENTIAL) utilize various classification systems for living things.

### Physical Science

The Physical Science unit includes concepts related to matter, forces, motion, and energy, as well as their interactions. Topics include chemical and physical changes, electricity, magnetism, heat, light, sound, machines, work and power.

The Physical Science unit includes concepts related to

# Course Syllabus

## Science, TN: Grade 1

Jefferson County Schools Curriculum, Final  
Jefferson County Schools

---

matter, forces, motion, and energy, as well as their interactions. Topics include chemical and physical changes, electricity, magnetism, heat, light, sound, machines, work and power.

The Physical Science unit includes concepts related to matter, forces, motion, and energy, as well as their interactions. Topics include chemical and physical changes, electricity, magnetism, heat, light, sound, machines, work and power.

- The learner will be able to (ESSENTIAL) understand the properties of energy.
- The learner will be able to (IMPORTANT) observe alterations that can take place when two materials interact.
- The learner will be able to (IMPORTANT) differentiate between solids and liquids.
- The learner will be able to (ESSENTIAL) understand the properties and structure of matter.
- The learner will be able to (IMPORTANT) recognize the basic concept that forces can move objects (push/pull) and describe how the movement of an object and its position can be changed (e.g., push/pull, fast/slow).
- The learner will be able to (IMPORTANT) recognize and predict how the weight of an object and its position affect balance and identify objects that are balanced.
- The learner will be able to (IMPORTANT) identify that the observable properties of an object can change over time and under different conditions.
- The learner will be able to (IMPORTANT) find similarities and differences in the weight, length, and size of objects.
- The learner will be able to (IMPORTANT) identify that, during the course of a day, shadows change in their length and position.
- The learner will be able to (IMPORTANT) recognize that sound is produced when an object vibrated and categorize sounds by their basic properties (e.g., loud/soft, natural/man-made).

### Research and Inquiry

The Research and Inquiry unit focuses on the knowledge, processes, and real world issues associated with science and technology. Topics include experimentation, data analysis, science related careers, and technological advances.

- The learner will be able to (ESSENTIAL) interpret scientific data.
- The learner will be able to (ESSENTIAL) understand methods of scientific inquiry.
- The learner will be able to (ESSENTIAL) comprehend the design of an experiment.
- The learner will be able to (ESSENTIAL) utilize available and suitable technology.