

TPSD **5th grade** Science I Syllabus
2nd 9 Weeks

Unit 5: Life Science Competency 3b and 3c

Unit Summary: Predict characteristics, structures, life cycles, environments, evolution, and diversity of organisms.

Performance Skills:

- use drawings, tables, graphs, and written and oral language to describe objects and explain ideas and actions
- make and compare different proposals when designing a solution or product
- evaluate results of different data (whether trivial or significant)
- infer and describe alternate explanations and predictions
- research and classify the organization of living things
- describe the differences between plant and animal cells
- describe the function of the major parts of body systems (nervous, circulatory, respiratory, digestive, skeletal, muscular) and the ways they support one another
- give examples of single-celled or multi-celled organisms
- research and cite evidence of the work of scientists (e.g., Pasteur, Fleming, Salk) as it contributed to the discovery and prevention of disease
- Research scientists are not limited to Pasteur, Fleming, and Salk
- apply the work of other scientist to inquiry questions

Academic Vocabulary/Words to Understand:

Cell, unicellular, multicellular, organism, tissue, organ, organ system, organelle, cell membrane, cytoplasm, nucleus, mitochondria, vacuoles, chloroplast, chlorophyll, cell wall, infectious disease, noninfectious disease, immune system, circulatory system, respiratory system, digestive system, nervous system, musculoskeletal system, excretory system

Scientists

Louis Pasteur, Alexander Fleming, and Jonas Salk

Note-This is NOT an all inclusive list of terms.

Unit 6: Life Science Competency 3d

Unit Summary: Predict characteristics, structures, life cycles, environments, evolution, and diversity of organisms.

Performance Skills:

- use drawings, tables, graphs, and written and oral language to describe objects and explain ideas and actions.
- make and compare different proposals when designing a solution or product.
- evaluate results of different data (whether trivial or significant).
- infer and describe alternate explanations and predictions.
- distinguish sexual reproduction processes in plants and fungi (e.g., vegetative propagation in stems, roots, and leaves of plants, budding in yeasts, fruiting bodies in fungi)
- identify asexual cell division.(mushroom spores produced/dispersed)
- identify sexual reproduction (e.g., eggs, seeds, fruit) .

Academic Vocabulary/Words to Understand:

fertilization, sexual reproduction, asexual reproduction, roots and tubers, cuttings, runners, vegetative propagation, pollination, spores, budding, offspring, seedling

Note-This is NOT an all inclusive list of terms.

Unit 7: Life Science Competency 3a

Unit Summary: Predict characteristics, structures, life cycles, environments, evolution, and diversity of organisms.

Performance Skills:

- use drawings, tables, graphs, and written and oral language to describe objects and explain ideas and actions
- make and compare different proposals when designing a solution or product
- evaluate results of different data (whether trivial or significant)
- infer and describe alternate explanations and predictions
- compare and contrast the diversity of organisms due to adaptations to show how organisms have evolved as a result of environmental changes. (DOK 2)
- compare and contrast diversity based on kingdoms, phyla, and classes (e.g., internal/external structure, body temperature, size, shape)
- show how adaptations increase an organism's chances to survive and reproduce in a particular habitat (e.g., cacti needles/leaves, fur/scales)
- show evidence of fossils as indicators of how life and environmental conditions have changed

Academic Vocabulary/Words to Understand:

adaptation, angiosperm, dichotomous key, extinction, gymnosperm, habitat, invertebrate, kingdom, niche, nonvascular, predator, prey, vascular, vertebrate, ecosystem, phylum, class

Note-This is NOT an all inclusive list of terms.

Unit 8: Life Science Competency 3e

Unit Summary: Predict characteristics, structures, life cycles, environments, evolution, and diversity of organisms.

Performance Skills:

- use drawings, tables, graphs, and written and oral language to describe objects and explain ideas and actions.
- make and compare different proposals when designing a solution or product.
- evaluate results of different data (whether trivial or significant).
- infer and describe alternate explanations and predictions.
- give examples of how consumers and producers (carnivores, herbivores, omnivores, and decomposers) are related in food chains and food webs.

Academic Vocabulary/Words to Understand:

food chain, food web, consumer, producer, decomposer, omnivore, herbivore, carnivore

Note-This is NOT an all inclusive list of terms.