Prairie Junior High School
7th Grade
Science Curriculum Outline

Unit 1: Scientific Method (August/September)

State Standard	Summary
11.7.01, 11.7.02	Steps of method
11.7.03	Definition of theory
11.7.04, 11.7.05	Variables and control
11.7.06	Collecting and analyzing data
11.7.07, 11.7.08, 11.7.09, 11.7.10	Designing experiments
13.7.03	Results and repeatability
13.7.14	Multiple data sets required for generalizations

Unit 2: Laboratory Equipment, Procedures, Safety (September)

State Standard	Summary
13.4.02	Safety rules
13.7.01	Identify safety hazards
13.7.02	Lab report writing

Unit 3: Metric Measurement (September/October)

State Standard	Summary
13.7.05	Science uses standard measurement
13.7.13	Choose correct instruments
11.7.07, 11.7.08, 11.7.09, 11.7.10	Designing, building, testing prototype
12.7.34	Defining and measuring mass, weight, volume, density, etc.
12.7.66	Calculating density

Unit 4: Environment (October)

State Standard	Summary
12.4.31	Decomposition of various materials
13.4.13	Reduce, reuse, recycle
13.7.18	Impact of technology on human activity
13.7.10	Impact of technology of ecosystems
13.7.11	Effectiveness of reducing, reusing, recycling

Unit 5: Earth and Atmosphere (November)

State Standard	Summary
12.7.88, 12.7.25	Water cycle, Nitrogen cycle, Carbon cycle
12.7.32	Biomes

12.7.84	Atmosphere
12.7.85	Clouds

Unit 6: Ecological Balance (December)

State Standard	Summary
12.7.28	Food chains and webs
12.4.07	Producers, decomposers, consumers, herbivore, carnivore, etc.
12.7.31	Adaptations for survival
12.7.26	Biotic vs. Abiotic
12.7.29, 12.7.30	Characteristics of living things
12.7.26, 12.7.27	Competition

Unit 7: Properties and Types of Matter (January)

State Standard	Summary
12.7.35	Phases of matter depend on molecular movement
12.7.36	Melting point, boiling point, freezing point, evaporation, condensation, sublimation
12.7.37	Plasma
12.7.38	Physical properties of matter
12.7.39	Element
12.7.40	Properties of metals

Unit 8: Chemistry (January)

12.7.41	Identify common compounds
12.7.42	Atoms
12.7.43	Subatomic particles
12.7.44	Molecules
12.7.45	Identify elements in molecular formulas
12.7.46, 12.7.48	Law of Conservation, Equation balancing
12.7.47	Acids and bases

Unit 9: Physics (February)

State Standard	Summary
12.7.63	Acceleration
12.7.64	Newton’s laws of motion
12.7.65	Work and simple machines
12.7.67	Gravity and magnetism
12.7.68	Average speed
12.7.69	Difference between mass and weight

Unit 10: Energy (March)

State Standard	Summary
12.7.49	Types of energy
12.7.50	Thermal equilibrium
12.7.51	Radiation, conduction, convection
12.7.52	Conductors vs. insulators
	Electricity

Unit 11: Earth Science (April)

State Standard	Summary
12.4.34	Types of rocks, minerals
12.7.70	Lithosphere
12.7.71	Formation of landforms
12.7.72	Soil composition
12.7.73	Glaciers and movement
12.7.75	Strata of crust
12.7.77	Layers of earth
12.7.78	Rock cycle
12.7.79, 12.7.80	Plate tectonics
12.7.83	Catastrophes

Unit 12: Space (May)

State Standard	Summary
12.4.47	Order of planets, earth revolution patterns
12.7.100	Moon phases
12.7.101	Light year
12.7.91	Objects in space have predictable motion
12.7.92	Gravity varies with mass
12.7.93	Information about planets
12.7.94	Earth and moon have common history
12.7.95	Moon rotation and revolution, tides
12.7.96	Evidence of water on moon
12.7.97	Planet rotation effects surface temperature
12.7.53-12.7.62	Properties of light
12.7.99	Sun is average star, properties of stars
12.7.98	Axis tilt, season changes