• 7.P.2: Understand forms of energy, energy transfer and transformation and conservation in mechanical systems.

• 7.E.1: Understand how the cycling of matter (water and gases) in and out of the atmosphere relates to Earth’s atmosphere, weather and climate and the effects of the atmosphere on humans.
  • 7.E.1.1: Compare the composition, properties and structure of Earth’s atmosphere to include: mixtures of gases and differences in temperature and pressure within layers.
  • 7.E.1.2: Explain how the cycling of water in and out of the atmosphere and atmospheric conditions relate to the weather patterns on Earth.
  • 7.E.1.4: Predict weather conditions and patterns based on information obtained from:
    ▪ Weather data collected from direct observations and measurement (wind speed and direction, air temperature, humidity and air pressure)
    ▪ Weather maps, satellites and radar
    ▪ Cloud shapes and types and associated elevation
  • 7.E.1.5: Explain the influence of convection, global winds and the jet stream on weather and climatic conditions.
  • 7.E.1.6: Conclude that the good health of humans requires: monitoring the atmosphere, maintaining air quality and stewardship.

Technology as a Tool
• 7.SI.1: Evaluate information resources based on specific criteria

• 7.TT.1: Use technology and other resources for assigned tasks.
  o 7.TT.1.1: Use appropriate technology tools and other resources to access information.
  o 7.TT.1.2: Use appropriate technology tools and other resources to organize information (e.g. graphic organizers, databases, spreadsheets, and desktop publishing).
  o 7.TT.1.3: Use appropriate technology tools and other resources to design products to share information with others (e.g. multimedia presentations).

• 7.RP.1: Apply a research process to complete given tasks.
  o 7.RP.1.1: Implement a collaborative research process activity that is group selected.
  o 7.RP.1.2: Implement an independent research process activity that is student selected.

Social Studies
• 7.H.1: Use historical thinking to analyze various modern societies.

• 7.H.2: Understand the implications of global interactions.

• 7.G.1: Understand how geography, demographic trends, and environmental conditions shape modern societies and regions.
  o 7.G.1.2: Explain how demographic trends (e.g. population growth and decline, push/pull factors and urbanization) lead to conflict, negotiation, and compromise in modern societies and regions.
  o 7.G.1.3: Explain how natural disasters (e.g. flooding, earthquakes, monsoons and tsunamis), preservation efforts and human modification of the environment (e.g. recycling, planting trees, deforestation, pollution, irrigation systems and climate change) affect modern societies and regions.

• 7.E.1: Understand the economic activities of modern societies and regions.
  o 7.E.1.1: Explain how competition for resources affects the economic relationship among nations (e.g. colonialism, imperialism, globalization and interdependence).
  o 7.E.1.4: Explain how personal financial decision-making impacts quality of life (e.g. credit, savings, investing, borrowing and giving).