

WARREN COUNTY SCHOOLS

7th GRADE SCIENCE PACING GUIDE 2020 - 2021

FORCES AND MOTION

1	Aug 17 - 21	Scientific Method Laboratory Procedures & Routine	Weekly Quiz	
2	Aug 24 - 28	7.P.1.1 Explain how the motion of an object can be described by its position, direction of motion, and speed with respect to some other object.	Weekly Quiz	
3	Aug 31 - Sept 4	7.P.1.1 Explain how the motion of an object can be described by its position, direction of motion, and speed with respect to some other object.	Weekly Quiz	
4	Sept 8 - 11	7.P.1.2 Explain the effects of balanced and unbalanced forces acting on an object (including friction, gravity and magnets).	Weekly Quiz	
5	Sept 14 - 18	7.P.1.2 Explain the effects of balanced and unbalanced forces acting on an object (including friction, gravity and magnets).	Weekly Quiz	
6	Sept 21 - 25	7.P.1.3 Illustrate the motion of an object using a graph to show a change in position over a period of time.	Weekly Quiz	
7	Sept 28 - Oct 2	7.P.1.3 Illustrate the motion of an object using a graph to show a change in position over a period of time.	Weekly quiz	
8	Oct 5 - 9	7.P.1.4 Interpret distance versus time graphs for constant speed and variable motion.	Weekly quiz	
9	Oct 12 - 16	7.P.1.4 Interpret distance versus time graphs for constant speed and variable motion.	Weekly quiz	DIY Car Project

ENERGY CONSERVATION AND TRANSFER

10	Oct 19 - 23	7.P.2.1 Explain how kinetic and potential energy contribute to the mechanical energy of an object.	Weekly quiz	
11	Oct 26 - 30	7.P.2.1 Explain how kinetic and potential energy contribute to the mechanical energy of an object.	Weekly quiz	
12	Nov 2 - 6	7.P.2.2 Explain how energy can be transformed from one form to another (specifically potential energy and kinetic energy) using a model or diagram of a moving object (roller coaster, pendulum, or cars on ramps as examples).	Weekly quiz	
13	Nov 9 - 13	7.P.2.2 Explain how energy can be transformed from one form to another (specifically potential energy and kinetic energy) using a model or diagram of a moving object (roller coaster, pendulum, or cars on ramps as examples).	Weekly quiz	
14	Nov 16 - 24	7.P.2.3 Recognize that energy can be transferred from one system to another when two objects push or pull on each other over a distance (work) and electrical circuits require a complete loop through which an electrical current can pass.	Weekly quiz	
15	Nov 30 - Dec 4	7.P.2.3 Recognize that energy can be transferred from one system to another when two objects push or pull on each other over a distance (work) and electrical circuits require a complete loop through which an electrical current can pass.	Weekly quiz	
16	Dec 7 - 11	7.P.2.4 Explain how simple machines such as inclined planes, pulleys, levers and wheel and axles are used to create mechanical advantage and increase efficiency.	Weekly quiz	
17	Dec 14 - 18	7.P.2.4 Explain how simple machines such as inclined planes, pulleys, levers and wheel and axles are used to create mechanical advantage and increase efficiency.	Weekly quiz	Rube Goldberg Machine Project

EARTH SYSTEMS, STRUCTURES AND PROCESSES

18	Jan 5 - 8	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		
19	Jan 11 -15	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.	Weekly quiz	

20	Jan 19 - 22	7.E.1.3 Explain the relationship between the movement of air masses, high and low pressure systems, and frontal boundaries to storms (including thunderstorms, hurricanes, and tornadoes) and other weather conditions that may result.		
21	Jan 25 - 29	7.E.1.3 Explain the relationship between the movement of air masses, high and low pressure systems, and frontal boundaries to storms (including thunderstorms, hurricanes, and tornadoes) and other weather conditions that may result.		
22	Feb 1 - 5	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	Weekly Quiz	
23	Feb 8 - 12	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	Weekly Quiz	
24	Feb 15 - 19	7.E.1.5 Explain the influence of convection, global winds and the jet stream on weather and climatic conditions.	Weekly Quiz	
25	Feb 22 - 26	7.E.1.6 Conclude that the good health of humans requires: monitoring the atmosphere, maintaining air quality and stewardship.	Weekly Quiz	
STRUCTURES AND FUNCTIONS OF LIVING ORGANISMS				
26	Mar 1 - 5	7.L.1.1 Compare the structures and life functions of single-celled organisms that carry out all of the basic functions of life including: • Euglena • Amoeba • Paramecium • Volvox	Weekly Quiz	
27	Mar 8 - 12	7.L.1.2 Compare the structures and functions of plant and animal cells, including major organelles (cell membrane, cell wall, nucleus, chloroplasts, mitochondria, and vacuoles).	Weekly Quiz	
28	Mar 15 - 19	7.L.1.3 Summarize the hierarchical organization of multi-cellular organisms from cells to tissues to organs to systems to organisms.	Weekly Quiz	
29	Mar 22 - 26	7.L.1.4 Summarize the general functions of the major systems of the human body (digestion, respiration, reproduction, circulation, and excretion) and ways that these systems interact with each other to sustain life	Weekly Quiz	
EVOLUTION AND GENETICS				
30	April 6 - 9	7.L.2.1 Explain why offspring that result from sexual reproduction (fertilization and meiosis) have greater variation than offspring that result from asexual reproduction (budding and mitosis).	Weekly Quiz	puzzle
31	April 12 - 16	7.L.2.2 Infer patterns of heredity using information from Punnett squares and pedigree analysis.	Weekly Quiz	Quizlet
32	April 19 - 23	7.L.2.2 Infer patterns of heredity using information from Punnett squares and pedigree analysis.	Weekly Quiz	Quizlet
33	April 26 - 30	7.L.2.3 Explain the impact of the environment and lifestyle choices on biological inheritance (to include common genetic diseases) and survival.	Weekly Quiz	
May 18 - June 4		REVIEW FOR NC FINALS		