

1 8.6C Investigate and describe applications of Newton's law of inertia, law of force and acceleration, and law of action-reaction	2 6.11B Understand that gravity is the force that governs the motions of our solar system	3 8.11C Explore how short-term and long-term environmental changes affect organisms and traits in subsequent populations	4 6.8A Compare/contrast potential and kinetic energy	5 8.11B Investigate how organisms and populations in an ecosystem depend on and may compete for biotic and abiotic factors such as quantity of light, water, range of temperatures, or soil composition	6 7.6B Distinguish between physical and chemical changes in matter in the digestive system
7 7.11C Identify changes in genetic traits that have occurred over several generations through natural selection & selective breeding	8 8.8A Describe components of the universe, including stars, nebulae, and galaxies, and use models such as the H-R diagram for classification	9 6.9C Demonstrate energy transformations such as energy in a flashlight battery changes from chemical energy to electrical energy to light energy	10 8.5E Investigate how evidence of chemical reactions indicate that new substances with different properties are formed	11 8.11A Describe producer/consumer, predator/prey, and parasite/host relationships as they occur in food webs within marine, freshwater, and terrestrial ecosystems	12 8.9A Describe the historical development of evidence that supports plate tectonic theory
13 8.11C Explore how short-term and long-term environmental changes affect organisms and traits in subsequent populations	14 7.5C Diagram the flow of energy through living systems, including food chains, food webs, and energy pyramids	15 8.9C Interpret topographic maps and satellite views to identify land and erosional features and predict how these features may be reshaped by weathering	16 8.5B Identify that protons determine an element's identity and valence electrons determine its chemical properties, including reactivity	17 8.6A Demonstrate and calculate how unbalanced forces change the speed or direction of an object's motion	18 8.11B Investigate how organisms and populations in an ecosystem depend on and may compete for biotic and abiotic factors such as quantity of light, water, range of temperatures, or soil composition
19 8.5A Describe the structure of atoms, including the masses, electrical charges, and locations, of protons and neutrons in the nucleus and electrons in the electron cloud	20 8.7A Model and illustrate how the tilted Earth rotates on its axis, causing day and night, and revolves around the Sun causing changes in seasons	21 7.6A Identify that organic compounds contain carbon and other elements such as hydrogen, oxygen, phosphorus, nitrogen, or sulfur	22 8.11A Describe producer/consumer, predator/prey, and parasite/host relationships as they occur in food webs within marine, freshwater, and terrestrial ecosystems	23 6.8D Measure and graph changes in motion	24 8.7B Demonstrate and predict the sequence of events in the lunar cycle
25 6.5C Differentiate between elements and compounds	26 8.9B Relate plate tectonics to the formation of crustal features	27 8.6A Demonstrate and calculate how unbalanced forces change the speed or direction of an object's motion	28 8.7A Model and illustrate how the tilted Earth rotates on its axis, causing day and night, and revolves around the Sun causing changes in seasons	29 7.12B Identify the main functions of the systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems	30 8.9C Interpret topographic maps and satellite views to identify land and erosional features and predict how these features may be reshaped by weathering
31 8.5D Recognize that chemical formulas are used to identify substances and determine the number of atoms of each element in chemical formulas containing subscripts	32 7.12F Recognize that according to cell theory all organisms are composed of cells, and cells carry similar functions such as extracting energy from food to sustain life	33 8.5A Describe the structure of atoms, including the masses, electrical charges, and locations, of protons and neutrons in the nucleus and electrons in the electron cloud	34 8.6B Differentiate between speed, velocity, and acceleration	35 8.7B Demonstrate and predict the sequence of events in the lunar cycle	36 8.11B Investigate how organisms and populations in an ecosystem depend on and may compete for biotic and abiotic factors such as quantity of light, water, range of temperatures, or soil composition
37 8.10C Identify the role of the oceans in the formation of weather systems such as hurricanes	38 6.8C Calculate average speed using distance and time measurements	39 8.5E Investigate how evidence of chemical reactions indicate that new substances with different properties are formed	40 8.11C Explore how short-term and long-term environmental changes affect organisms and traits in subsequent populations	41 8.6A Demonstrate and calculate how unbalanced forces change the speed or direction of an object's motion	42 8.8A Describe components of the universe, including stars, nebulae, and galaxies, and use models such as the H-R diagram for classification
43 8.6C Investigate and describe applications of Newton's law of inertia, law of force and acceleration, and law of action-reaction	44 8.5D Recognize that chemical formulas are used to identify substances and determine the number of atoms of each element in chemical formulas containing subscripts	45 8.8D Model and describe how light years are used to measure distances and sizes in the universe	46 8.5C Interpret the arrangement of the Periodic Table, including groups and periods, to explain how properties are used to classify elements	47 8.11A Describe producer/consumer, predator/prey, and parasite/host relationships as they occur in food webs within marine, freshwater, and terrestrial ecosystems	48 6.6A Compare metals, nonmetals, and metalloids using physical properties such as luster, conductivity, or malleability
49 7.7A Contrast situations where work is done with different amounts of force to situations where no work is done such as moving a box with a ramp and without a ramp, or standing still	50 7.14B Compare the results of uniform or diverse offspring from sexual reproduction or asexual reproduction	51 8.5B Identify that protons determine an element's identity and valence electrons determine its chemical properties, including reactivity	52 8.9B Relate plate tectonics to the formation of crustal features	53 7.10B Describe how biodiversity contributes to the sustainability of an ecosystem	54 8.6A Demonstrate and calculate how unbalanced forces change the speed or direction of an object's motion

SCIENCE BENCHMARK DATA

KEEP WORKING	GETTING THERE	ALMOST THERE	WAY TO GO!	TOTAL ROCK STAR!
40	50	60	73	85
				100

5 THINGS I'M PRETTY GOOD AT:

- | | |
|---|--|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |

5 THINGS I NEED TO WORK ON:

-
- A vertical number line with five horizontal lines. At the bottom of each line is a black circle containing a white number. From top to bottom, the numbers are 1, 2, 3, 4, and 5.

IFEL
