Science Practices (ongoing evaluation throughout the year)

* Identify questions that can be answered through scientific investigations.
* Design and conduct a scientific investigation.
* Use appropriate mathematic tools and techniques to gather data and information.
* Analyze and interpret data.
* Develop descriptions, models, explanations, and predictions.
* Think critically and logically to connect evidence and explanations.
* Communicate scientific procedures and explanations.

Science in the Natural World (Will have a “P” or “NP” in the gradebook)

1. I can describe the skills scientists use.
2. I can describe attitudes that help you think scientifically.
3. I can explain scientific reasoning.
4. I can describe scientific inquiry.
5. I can demonstrate how to design and conduct an experiment.
6. I can explain scientific theories and laws.
7. I can explain why scientist use a standard measurement system.
8. I can explain SI Units of Measure.
9. I can analyze the math skills and tools scientists use.
10. I can interpret the appropriate graph to use in order to display data.
11. I can explain why scientists use models.
12. I can demonstrate how a model is used.
13. I can prepare for a lab investigation using safety skills.

Cell Processes and Energy

1. I can identify how living things get energy from the sun.
2. I can describe what happens during photosynthesis.
3. I can describe what happens during cellular respiration.
4. I can describe what happens during fermentation.
5. I can describe what an organism gets from his environment.
6. I can describe the two parts of an organism’s habitat.
7. I can explain how an ecosystem is organized.
8. I can describe the energy roles in an ecosystem.
9. I can explain how energy moves through an ecosystem.
10. I can demonstrate the processes in the water cycle.
11. I can explain how carbon and oxygen cycles are related.
12. I can describe how nitrogen moves through an ecosystem.
13. I can identify the six major biomes.
14. I can describe two major aquatic ecosystems.
15. I can explain what factors affect species dispersal.

Energy

1. I can describe forces in nature.
2. I can describe what forces affect motion.
3. I can explain how work is defined.
4. I can identify power.
5. I can identify what a machine does.
6. I can differentiate between efficiency and mechanical advantage.
7. I can explain how incline planes work.
8. I can classify levers.
9. I can describe how a compound machine does work.
10. I can describe the properties that determine the temperature of an object.
11. I can describe thermal energy.
12. I can explain how heat is transferred.
13. I can explain how charges interact.
14. I can describe how a charge builds up.
15. I can explain how electric currents are made.
16. I can compare and contrast conductors and insulators.
17. I can describe what factors affect flow.
18. I can identify Ohm’s discovery.
19. I can identify the composition of a current.
20. I can calculate electric power and energy.
21. I can describe how electric shock can be prevented.
22. I can identify the properties of mechanical waves.
23. I can identify the types of mechanical waves.
24. I can identify amplitude, wavelength, frequency, and speed of a wave.
25. I can describe how frequency, wavelength, and speed are related.
26. I can define sound.
27. I can identify the factors that affect the speed of sound.
28. I can identify factors that affect pitch, loudness, and the Doppler Effect.
29. I can identify the composition of an electromagnetic wave.
30. I can demonstrate the behavior of electromagnetic waves.

Chemistry

1. I can describe the contents of the Periodic Table.
2. I can describe the properties of metals.
3. I can classify metals.
4. I can describe the properties of non-metals.
5. I can explain how non-metals form families.
6. I can describe what determines an element’s chemistry.
7. I can explain the formation of ions.
8. I can demonstrate how ionic compounds are written.
9. I can explain the properties of ionic compounds.
10. I can explain how atoms are held together by covalent bonds.
11. I can identify the properties of molecular compounds.
12. I can explain how bonded atoms become partially charged.
13. I can describe how matter can be changed.
14. I can identify a chemical reaction.
15. I can describe the information needed for a chemical equation.
16. I can demonstrate how mass is conserved during a chemical reaction.
17. I can identify three types of chemical reactions.
18. I can identify how mixtures are classified.
19. I can identify how a solution is formed.
20. I can identify how a concentration is changed.
21. I can identify factors that affect solubility.
22. I can identify the properties of acids and bases.
23. I can identify what ions do to acids and bases to form water.
24. I can demonstrate the products of neutralization.

Earth Systems

1. I can describe a river, lake, and pond system.
2. I can explain how water moves underground.
3. I can identify how people use groundwater.
4. I can describe a wetland.
5. I can explain why a wetland is important.
6. I can describe surface currents.
7. I can describe deep currents.
8. I can describe the composition of the Earth’s atmosphere.
9. I can identify the properties of air.
10. I can explain how altitude affects air pressure and density.
11. I can compare and contrast the layers of the atmosphere.
12. I can explain how energy from the sun travels to the Earth.
13. I can explain what happens to energy from the sun when it reaches the Earth.
14. I can describe how temperature is measured.
15. I can explain how heat is transferred.
16. I can explain what causes winds.
17. I can describe the difference between local and global winds.
18. I can explain how water moves through the atmosphere.
19. I can demonstrate how relative humidity is measured.
20. I can explain the formation of clouds.
21. I can classify clouds into the three main categories.
22. I can describe and differentiate forms of precipitation.
23. I can explain the different forms of severe weather.

100. I can describe the major air masses.

101. I can explain the differences between fronts.

102. I can demonstrate how to predict weather

103. I can interpret weather maps

104. I can explain how objects in the sky appear to move

105. I can describe the moon stars, planet, comets, and how they interact

106. I can explain the movement of Earth and what causes seasons

107. I can explain how gravity keeps objects in orbit

108. I can the relationship between gravity and tides.