* Weather and climate, forces and interactions, and life sciences (ecosystems) are more developed and rigorous in the NGSS standards than the previous state standards.
* Study of matter in the previous standards was moved to 2nd and 5th grade in the NGSS standards.
* Almost all standards in the 3-5 grade band remained intact, the greatest changes are the instructional approaches moving from content based to more performance based. In NGSS, students are asked to understand, use and apply scientific processes to a greater degree than in current state standards.
* Content is more integrated with scientific inquiry standards, increased rigor and real-world connections.

| NGSS PE | ORSS | Content | Practice | CCC | Notes on Alignment |
| --- | --- | --- | --- | --- | --- |
| 3-PS2 Motion and Stability: Forces and Interactions | | | | | |
| 3-PS2-1.  Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. | 3.2P.1  5.2P.1  3.3S.1  3.3S.2 | S  D/S | S  S | N | Changed from interaction and change to cause and effect and patterns |
| 3-PS2-2.  Make observations and/or measurements of an object’s motion to provide evidence that that a pattern can be used to predict future motion. | 3.3S.1  3.3S.2  3.3S.3  3.2P.1 | S | S  S  S | N | Changed from interaction and change to cause and effect and patterns |
| 3-PS2-3.  Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other. | 2.2P.1  5.2P.1  3.2P.1  4.3S.1 | D/S  D/P  S | D | N | Changed from interaction and change to cause and effect and patterns |
| 3-PS2-4.  Define a simple design problem that can be solved by applying scientific ideas about magnets. | 3.4D.1  2.2P.1  5.2P.1 | D/S  D/P | S | N | Changed from interaction and change to cause and effect and patterns |
| 3-LS1 From molecules to Organisms: Structures and Processes | | | | | |
| 3-LS1-1.  Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death. | 3.1L.1  3.2L.1 | S  S |  | N  N | CCC- is patterns |
| 3-LS2 Ecosystems: Interactions, Energy, and Dynamics | | | | | |
| 3-LS2-1.  Construct an argument that some animals form groups that help members survive. | 5.2L.1 | D/P |  | N | CCC- cause and effect |
| 3-LS3 Heredity: Inheritance and Variation of Traits | | | | | |
| 3-LS3-1.  Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms. | 3.1L.1  3.3S.2 | S | S | N | Moved to a higher level of thinking  CCC - cause and effect and patterns |
| 3-LS3-2.  Use evidence to support the explanation that traits can be influenced by the environment. | 4.2L.1 | D/S |  | N | CCC- Cause and effect and patterns |
| 3-LS4 Biological Evolution: Unity and Diversity | | | | | |
| 3-LS4-1.  Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago. | 4.1L.1  4.2L.1 | D/S  D/P |  | N | Moved to a higher level of thinking  CCC - cause and effect; scale, proportion, and quantity; systems and system models |
| 3-LS4-2.  Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing. | 3.1L.1 | P |  | N | CCC - cause and effect; scale, proportion, and quantity; systems and system models |
| 3-LS4-3.  Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all. | 4.2L.1  5.2L.1 | D/P  D/S |  | N | CCC - cause and effect; scale, proportion, and quantity; systems and system models |
| 3-LS4-4.  Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change. | 4.3S.3 |  | D/S | N | CCC - cause and effect; scale, proportion, and quantity; systems and system models |
| 3-ESS2 Earth's Systems | | | | | |
| 3-ESS2-1.  Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. | 3.2E.1 | S |  | N | Deeper thinking  CCC- patterns |
| 3-ESS2-2.  Obtain and combine information to describe climates in different regions of the world. | 3.2E.1 | P |  | N | CCC- patterns |
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| 3-ESS3 Earth and Human Activity | | | | | |
| 3-ESS3-1.  Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard. |  | N | N | N | No connection to a current standard |
| 3-5-ETS1 Engineering Design | | | | | |
| 3-5-ETS1-1.  Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. | 3.4D.1 |  | S | N | CCC- influence of engineering, technology, and science on society and the natural world |
| 3-5-ETS1-2.  Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. | 5.4D.1 |  | D/P | N | CCC- influence of engineering, technology, and science on society and the natural world |
| 3-5-ETS1-3.  Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. | 3.4D.1 |  | P | N | CCC- influence of engineering, technology, and science on society and the natural world |
|  | | | | | |
| The following ORSS are not aligned to any NGSS: | | | | | |
| 3.4D.2 Describe how recent inventions have significantly changed the way people live. | | | | | |
| 3.4D.3 Give examples of inventions that enable scientists to observe things that are too small or too far away. | | | | | |