* Waves and their Application Technologies is a new concept.
* The Oregon Life Science Standards partially correlate to NGSS Life Science Topic if you combine some of the Grade 1-3 Life Science Content Standards, but the **application** of content knowledge greatly increases the rigor for students’ understanding.
* Content for Oregon Standards K-1 combined is a strong alignment to NGSS.
* NGSS Engineering Design Standards are K-2 grade-band specific. Future work will determine grade-level learning progression.

| NGSS PE | ORSS | Content | Practice  | CCC | Notes on Alignment |
| --- | --- | --- | --- | --- | --- |
| 1-PS4 Waves and Their Applications in Technologies for Information Transfer |
| 1-PS4-1.Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.  | 1.3S.11.3S.2 | N | P | N | Waves and their application technologies is a new concept. |
| 1-PS4-2.Make observations to construct an evidence-based account that objects in darkness can be seen only when illuminated. | 1.3S.11.3S.2 | N | P | N |  |
| 1-PS4-3.Plan and conduct investigations to determine the effect of placing objects made with different materials in the path of a beam of light.  | 1.3S.11.3S.2 | N | P | N |  |
| 1-PS4-4.Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance. | 1.4D.11.3S.1 | N | PP | N |  |
| 1-LS1 From Molecules to Organisms: Structures and Processes |
| 1-LS1-1.Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs. | 1.1L.11.2L.11.4D.11.3S.11.4D.2 | PP | PP | S | NGSS is more specific than the ORSS. |
| 1-LS1-2.Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.  | 1.1L.13.1L.12.3S.2 | PD | D/P | D |  |
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| 1-LS3 Heredity: Inheritance and Variation of Traits |
| 1-LS3-1.Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.  | 1.1L.13.1L.11.3S.22.3S.2 | PDP |  | D |  |
| 1-ESS1 Earth's Place in the Universe |
| 1-ESS1-1.Use observations of the sun, moon, and stars to describe patterns that can be predicted. | K.1E.1K.2E.12.2E.11.3S.22.3S.2 | D/PD/PD | PD | D | The observations recorded need to reflect the patterns. |
| 1-ESS1-2.Make observations at different times of year to relate the amount of daylight to the time of year. | 2.2E.11.3S.22.3S.2 | D | PD | PD |  |
| K-2-ETS1 Engineering Design |
| K-2-ETS1-1.Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. | K.3S.1K.4D.11.4D.1.2.4D.12.4D.3 | PPDDD | PPDDD | P | Engineering Design content of the ORSS K-2 learning progression when combined with Science Inquiry creates a strong alignment.All of these will be partial alignment because they are based on a grade k-2 band. |
| K-2-ETS1-2.Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. | K.4D.22.4D.3 | PD | PD | P |  |
| K-2-ETS1-3.Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. | K.4D.12.3S.12.4D.3 | PD | PDD | P |  |
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| The following ORSS are not aligned to any NGSS: |
| 1.3S.3 Describe why recording accurate observations is important in science. |
| 1.4D.3 Show how tools are used to complete tasks every day. |