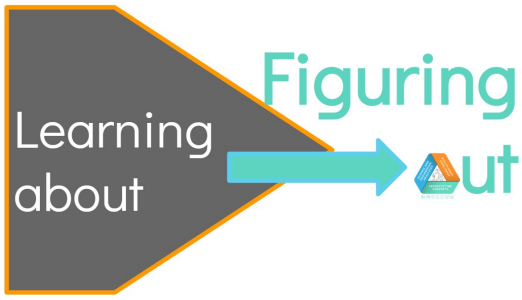
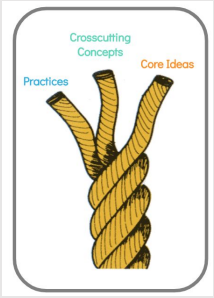
What are the NCCRS-S Unwrapping Documents?

On our journey to implement Nebraska's College and Career Ready Standards for Science, a group of Nebraska science educators came together to learn, collaborate, and unwrap the standards—making the shift from learning about to figuring out.



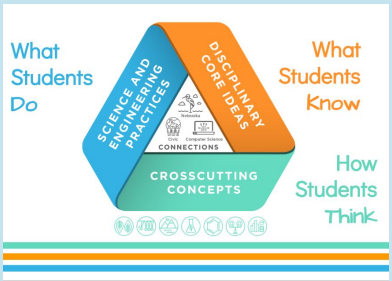


Why 'unwrap' and not 'unpack'?

Unwrapping allows us to dig into the layers of ***supporting documents*** that describe and further articulate the science and engineering practices, disciplinary core ideas, and crosscutting concepts integrated in each performance indicator while maintaining the three-dimensional "package". Rather than just unpack each dimension in isolation, the process of unwrapping reveals the inherent ***overlapping*** of the dimensions and their intricate ***connections***.

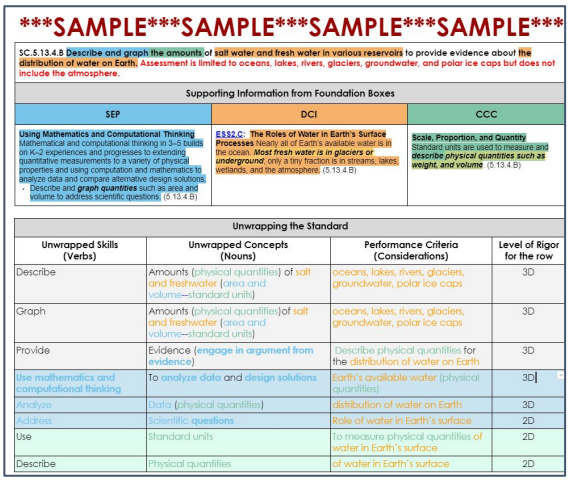
Why should the standards be unwrapped?

Standards do not describe all that can / should be taught. When standards are unwrapped, ***smaller learning targets*** are revealed that aid in the design of instruction and assessment. These expanded smaller learning targets serve as steps of knowledge or concepts & skills that ***build toward*** the standard.



When teachers work together to unwrap standards, they achieve collective clarity regarding learning targets as they move from knowing to understanding the standards. Through this process teachers can collaboratively identify ***strategies for all students*** to achieve the standard.

How should the unwrapping documents be used?



SAMPLESAMPLE***SAMPLE***SAMPLE***

SC.5.13.4.B Describe and graph the amounts of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth. Assessment is limited to oceans, lakes, rivers, glaciers, groundwater, and polar ice caps but does not include the atmosphere.

Supporting Information from Foundation Boxes

SEP	DCI	CCC
Using Mathematics and Computational Thinking Mathematical and computational thinking in 3–5 builds on K–2 experiences and progresses to extending quantitative measurements to a variety of physical properties and using computation and mathematics to analyze data and compare alternative design solutions. • Describe and ***graph quantities*** such as area and volume to address scientific questions. (5.13.4.B)	ESS2.C: The Roles of Water in Earth's Surface Processes Nearly all of Earth's available water is in the ocean. ***Most fresh water is in glaciers or underground***; only a tiny fraction is in streams, lakes, wetlands, and the atmosphere. (5.13.4.B)	Scale, Proportion, and Quantity Standard units are used to measure and ***describe physical quantities such as weight, and volume*** (5.13.4.B)

Unwrapping the Standard

Unwrapped Skills (Verbs)	Unwrapped Concepts (Nouns)	Performance Criteria (Considerations)	Level of Rigor for the row
Describe	Amounts (physical quantities) of salt and freshwater (area and volume—standard units)	oceans, lakes, rivers, glaciers, groundwater, polar ice caps	3D
Graph	Amounts (physical quantities)of salt and freshwater (area and volume—standard units)	oceans, lakes, rivers, glaciers, groundwater, polar ice caps	3D
Provide	Evidence (engage in argument from evidence)	Describe physical quantities for the distribution of water on Earth	3D
Use mathematics and computational thinking	To analyze data and design solutions	Earth's available water (physical quantities)	3D
Analyze	Data (physical quantities)	distribution of water on Earth	3D
Address	Scientific questions	Role of water in Earth's surface	2D
Use	Standard units	To measure physical quantities of water in Earth's surface	2D
Describe	Physical quantities	of water in Earth's surface	2D

Unwrapping the standards is a rewarding and challenging task that all science educators should tackle in their learning journey. These documents are ***SAMPLE*** artifacts of other teachers' unwrapping process that can provide insights into their thinking and offer other perspectives as a starting place and point of comparison. They should be used as a ***learning tool***, not a final product.

Where can I learn more?

To begin this learning journey, investigate the resources, samples, and learning module located at **https://bit.ly/unwrapNCCRS**