SOUTH CAROLINA
DEPARTMENT OF EDUCATION

Graphic Organizers for the Crosscutting Concepts

Graphic organizers are useful scaffolds for any content area and can be used to help students organize their ideas for a variety of classroom tasks. The graphic organizers linked in this document are specifically aligned to the seven Crosscutting Concepts (CCCs) of the Science Standards. These resources were developed for use with early elementary (K-2), upper elementary (3-5), and secondary students (6-12). These tools are not the only ways that students can organize their understanding of science concepts but may provide a useful scaffold for student learning.

As the second dimension of the Science Standards, the CCCs are used to enhance a student's critical thinking skills and deepen their understanding of scientific ideas. While educators often see the value in these concepts, it can be difficult to figure out how to make them straightforward for students. The CCCs are valuable tools to help students with developing, understanding, and connecting Disciplinary Core Ideas and Science and Engineering Practices across learning experiences, but students need support in making these connections. Additionally, there is overlap across the graphic organizers. This reinforces student understanding that the CCCs are interdependent lenses that scientists use to understand and analyze phenomena.

For each graphic organizer, a teacher version has also been developed. This version mirrors the student version in format but adds additional support for teachers; including supporting language and the vertical articulation statements for the appropriate grade band. The * on the vertical articulation statements denotes ideas that are not included in the end of instruction Performance Expectations. However, these statements can be used to progress student learning.

Each graphic organizer is available as a PDF format for printing. These graphic organizers have been adapted from the work of Andersen (n.d.), the Georgia Department of Education (2023), and Peacock (n.d.)

- Cause and Effect
  - Teacher K-2
  - Print K-2
  - Teacher 3-5
  - Print 3-5
  - Teacher 6-12
  - Print 6-12_1
  - Print 6-12_2
- Energy and Matter
  - Teacher K-2
  - Print K-2
  - Teacher 3-5
  - Print 3-5
  - Teacher 6-12
  - Print 6-12
- Patterns
  - Teacher K-2
  - Print K-2
  - Teacher 3-5
  - Print 3-5
  - Teacher 6-12
  - Print 6-12
- Scale, Proportion, and Quantity
  - Teacher K-2
  - Print K-2
  - Teacher 3-5
  - Print 3-5
  - Teacher 6-12
  - Print 6-12
- Stability and Change
  - Teacher K-2
  - Print K-2
  - Teacher 3-5
  - Print 3-5
  - Teacher 6-12
  - Print 6-12
- Structure and Function
  - Teacher K-2
  - Print K-2
  - Teacher 3-5
  - Print 3-5
  - Teacher 6-12
  - Print 6-12
  - Print Environmental Fitness
- Systems and System Models
  - Teacher K-2
  - Print K-2
  - Teacher 3-5
  - Print 3-5
  - Teacher 6-12
  - Print 6-12

References

Andersen, P. (n.d.). Graphics and Tools. The Wonder of Science. https://thewonderofscience.com/graphics

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Georgia Department of Education (2023). K-2 Science and Engineering Practices Graphic Organizers. https://lor2.gadoe.org/gadoe/file/0ea983c7-b611-4310-82ee-1a4432a172f2/1/Science_K-2_Graphic_Organizers_Crosscutting_Concepts.pdf

Peacock, J. (n.d.). Graphic Organizer Tools to Support the Crosscutting Concepts. bit.ly/CCCGOs

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