Science Resources Workflow: Which Resource When

This tool helps you decide which state science resource to use based on the work you are doing, not to read everything at once.

Start on What are you working on right now?

- Choose the box that best matches what you are working on right now.
- Don’t overthink it. There’s no “wrong” entry point.

Follow the pathway.

- Each section points you to the first resource to use, not every resource you might eventually need.
- Use the guiding questions to confirm you are in the right place.

Return as needed.

- Teaching and planning are not linear.
- Use the links to move between sections as questions arise.
- The final sections are reference lists, return to the workflow if you are unsure when to use a resource.

This tool is designed to support decision-making, not to prescribe instruction.

What are you working on right now?

Planning

- Plan or reorganize a unit
- Plan upcoming lessons

How Deep Is Deep Enough?

- Check rigor or expectations
- Understand what mastery looks like

Teaching & Learning

- Help students explain, model, or discuss ideas
- Address misconceptions or missing background

Assessment Alignment

- Design or review a classroom assessment
- Check alignment to state assessments

Each path points you to the **first resource to use**, not everything you might need.

Planning the Unit

What Performance Expectations belong together?

Start with: Bundling Guides

- Groups Performance Expectations into a coherent conceptual storyline.

Selecting or modifying an anchoring phenomenon?

Start with: Using Phenomena

- Clarifies the role of phenomena and supports purposeful selection.
- Use alongside the **Bundling Guides**.

Ready to map the flow of learning across the unit?

Start with: Instructional Planning Template

- Supports the sequence of investigations, modeling, discourse, and evidence-building.

Most teachers next check:

- **Planning Lessons**,
- **Helping Students Make Sense of Ideas**, **or**
- **How Deep Is Deep Enough**

Planning Lessons

Deciding what students will actually do in this lesson?

Start with: Using the Science and Engineering Practices

- Clarifies what it means for students to investigate, model, analyze, and argue.
- Pair with **Science and Engineering Practices Vertical Articulation** for grade-level context.

Not sure what students should already know coming into this lesson?

Start with: Vertical Articulations

- Identifies relevant prior learning and helps avoid unnecessary review or extension.

Need quick tools to support modeling, explanation, or argumentation?

Start with: SEP and CCC Graphic Organizers

- Supports the sequence of investigations, modeling, discourse, and evidence-building.

This section supports **lesson-level decisions**.
For unit structure, return to **Planning the Unit**.
If students struggle during the lesson, go to **Helping Students Make Sense of Ideas**.

Helping Students Make Sense of Ideas

Students struggling to talk, write, model, or explain ideas?

Start with: SEP and CCC Graphic Organizers

- Classroom-ready scaffolds to support student discourse, explanation, and modeling.

Want to strengthen sensemaking in an existing lesson?

Start with: Using the Science and Engineering Practices and Crosscutting Concepts

- Clarifies how lessons should support students in figuring out ideas, not just receiving information.

If questions arise about rigor or expectations, continue to: **How Deep is Deep Enough?**
If students struggle due to missing background knowledge, go to: **What Students Need Before This**.

How Deep is Deep Enough?

Not sure how deeply to teach a Performance Expectation?

Start with: Performance Targets

- Clarifies assessment boundaries, evidence expectations, and level of rigor.
- Appendices provide views of the SEP, DCI, and CCC Instructional Focus Progressions.

Wondering what mastery looks like in practice?

Start with: Performance Targets

- Includes observable features that show what proficient student reasoning and evidence look like.

Trying to interpret the kind of reasoning students should demonstrate?

Start with: Performance Targets

- Describes how students should explain, justify, model, and connect ideas.

Use Performance Targets to guide instructional depth and expectations, not to script daily activities.
If gaps appear related to prior learning, continue to **What Students Need Before This**.

What Students Need Before This

Wondering what background knowledge students should already have?

Start with: Vertical Articulations

- Identifies relevant prior-grade or prior-course learning tied to the current content.

Concerned you may be reteaching or over-teaching content?

Start with: Vertical Articulations

- Helps distinguish prerequisite understanding from enrichment or advanced ideas.

Trying to determine whether a gap matters or is an extension?

Start with: Vertical Articulations + Performance Targets

- Vertical Articulations clarify what comes before and Performance Targets clarify what is required now.
- Performance Target appendices provide views of the SEP, DCI, and CCC Instructional Focus Progressions.

Use these resources to inform instructional decisions, not to lower grade-level expectations.

Checking Assessment Alignment

Using state assessment data to inform instruction?

Start with: Data Review Reports

- Summarize recommendations from Data Review Committees based on item-level patterns.
- When used as a set, provides patterns in student thinking across grades.

Designing or revising a classroom assessment?

Start with: Performance Targets

- Evidence descriptions map directly to observable student proficiency.

Checking alignment to state assessment expectations?

Start with: Assessment Specifications

- Grade 4
- Grade 6
- Biology 1
- Use last, not to design instruction, but to confirm alignment.

Assessment resources are alignment tools, not drivers of curriculum or instruction.

Bundling Guides for Science (Use for Unit Planning)

Use when grouping Performance Expectations and building a coherent unit storyline.

Elementary	Middle	High
• Kindergarten • First Grade • Second Grade • Third Grade • Fourth Grade • Fifth Grade	• Sixth Grade • Seventh Grade • Eighth Grade	• Biology 1 • Biology 2 • Anatomy & Physiology • Chemistry • Physics • Earth and Space Science

Use this resource when you need it, return to the **workflow** to decide when.

Using the Science and Engineering Practices and Crosscutting Concepts

Use when refining lessons to strengthen student sensemaking, ensuring students are actively investigating, explaining, modeling, and connecting ideas.

Elementary	Secondary
• Using Science and Engineering Practices in Elementary Science Classrooms • Using Crosscutting Concepts in Elementary Science Classrooms	• Using Science and Engineering Practices in Secondary Science Classrooms • Using Crosscutting Concepts in Secondary Science Classrooms

Use this resource when you need it, return to the **workflow** to decide when.

Vertical Articulations (What Students Should Already Know)

Use to check prerequisite knowledge and avoid teaching beyond grade or course expectations.

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
• Science and Engineering Practices	• Life Science • Physical Science • Earth and Space Science • Engineering, Technology, and Applications of Science	• Crosscutting Concepts

Use this resource when you need it, return to the **workflow** to decide when.

Performance Targets (Depth, Rigor, and Mastery)

Use to determine how deep to teach, what counts as mastery, and the reasoning students must demonstrate.

Elementary	Middle	High
• Kindergarten • First Grade • Second Grade • Third Grade • Fourth Grade • Fifth Grade	• Sixth Grade • Seventh Grade • Eighth Grade	• Biology 1 • Biology 2 • Anatomy & Physiology • Chemistry • Physics • Earth and Space Science

Use this resource when you need it, return to the **workflow** to decide when.

Data Review Reports: Statewide Instructional Recommendations (Looking Across Grades)

Use to identify common patterns in student thinking that can be addressed across grade bands and courses.

Grade 4 (K-5)	Grade 6 (6-8)	Biology 1 (7-12)
• 2024 SC READY Science Test Data Review Report for Grade 4 • 2025 SC READY Science Test Data Review Report for Grade 4 • 2026 **Science Grade 4** Statewide Instructional Recommendations	• 2024 SC READY Science Test Data Review Report for Grade 6 • 2025 SC READY Science Test Data Review Report for Grade 6 • 2026 **Science Grade 6** Statewide Instructional Recommendations	• 2024 EOCEP Biology 1 Test Data Review Report • 2025 EOCEP Biology 1 Test Data Review Report • 2026 **Biology 1** Statewide Instructional Recommendations

Use this resource when you need it, return to the **workflow** to decide when.

All South Carolina Science Instructional Resources



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