

Grades 3-12

گار Science 4Us

Grades K-2

# 5E Model





#### Engage

Begin with an assessment of prior knowledge. This doesn't have to be formal. Maybe just a chat to identify learning gaps and foster interest in the concept. Raise questions or pose problems to stir up some initial thoughts. Pre-investigation activities are included in Science4Us and Gizmos to activate prior knowledge and introduce the concept and/or lab. Use videos and visuals in Science4Us and Gizmos to start the discussions.



# Explore

It's time for action! This phase is all about investigation and discovery. Use hands-on activities to test predictions and hypotheses. Dig into the learning. All <u>Science4Us modules</u> include online and handson activities that bring science to life. Gizmos simulations and <u>STEM Cases</u> allow students to act as scientists with tasks in real-world scenarios. The highly visual, interactive lessons foster active learning by doing!



## Explain

The teacher often leads this. Prompt students to ask questions. Discuss possible solutions. Synthesize information. Explain using evidence from investigations. Many Gizmos come with a "Planning Your Lesson" guide with space to think through guided and structured inquiry before this phase. Printable teacher guides are available in Science4Us with follow-up questions, discussion points, and expected student responses.



### Elaborate

Students need to show what they know. Think of this as a performance piece. Design graphs or experiments. Apply labels. Use that fresh information in new but similar situations, such as the C-E-R prompts and extension activities in Gizmos! Look for the vocabulary connections and content extensions in Science4Us. Both teacher guides have plenty of ideas for students to share their learning.



#### Evaluate

Teachers perform formal and informal evaluations throughout the different phases. Observations, selfassessments, peer assessments, writing assignments, exit tickets, and exams are just a few examples of evaluation strategies. Gauge understanding with built-in questions in Gizmos. The final session in each Science4Us module is an evaluation based on the lessons in that module. Both have diagnostic, formative, and summative assessments to make evaluation easy. Real-time monitoring? That's included, too!