

USING THE 5E MODEL IN THE CLASSROOM

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WHAT IS THE 5E MODEL?

Instructional model developed by BSCS Science learning through the University of Colorado.

Created to develop an understanding of the natural world

[BSCS 5E Instructional Model](#)

THE 5 E'S

- Engagement - students' prior knowledge accessed and interest engaged in the phenomenon
- Exploration - students participate in an activity that facilitates conceptual change
- Explanation - students generate an explanation of the phenomenon
- Elaboration - students' understanding of the phenomenon challenged and deepened through new experiences
- Evaluation - students assess their understanding of the phenomenon

From [BSCS](#)

The main benefit that the 5E model has over an explicit teaching model is that students are charged with more responsibility for their learning and are encouraged to use both critical and enquiry thinking. While it could be possible, and even tempting, to use the 5E model as a basis of every lesson plan to be used in the classroom it seems far more constructive and beneficial to see the 5E model as a tool we can use to examine the order of learning experiences being used in the classroom and how that aligns with what we know about student learning and how we can use that to the best advantage (BSCS, 2006). A significant benefit of the 5E model is that it uses many positive aspects from other learning models; it allows teacher-centred instruction and guidance at varying degrees dependent on the lesson and students' level of understanding and knowledge, allows for student-centred enquiry and critical thinking, develops deeper and further understanding through hands-on activities and engagement, allows the teacher multiple opportunities for varying forms of assessment and offers time for reflection and evaluation which is both teacher- and student- centred.

WHY I LIKE IT

IT ALLOWS STUDENTS TO
ENGAGE AND EXPLORE

THEN WHEN IT IS TIME TO
EXPLAIN- STUDENTS HAVE A
BACKGROUND TO DRAW ON

HAND ON AND INQUIRY

EXAMPLE - DENSITY

HOW TO CREATE YOUR OWN- HOW I DO IT

- Write out the major concepts of the unit
- Find an attention grabbing idea or example- this can be hard- Engage
- For each main idea find an interactive, lab, station to show the basics for the Explore
 - The questions should point the students into wondering about the concept
- The Explain should go over the main ideas of the Explore
- The Elaborate are the labs or activities that extend and apply the concepts

CONTINUED

- The Evaluate is the most challenging.
 - This year I am using it as my assessments
 - Bring together what the student has learned and allow the them to show you their understanding
 - Often a project

NEW MN STANDARDS

- Strand 1: Exploring phenomena or engineering problems
Substrand 1: Asking questions and defining problems
- Strand 2: Looking at data and empirical evidence to understand phenomena or solve problems
Substrand 1: Analyzing and interpreting data
- Strand 3: Developing possible explanations of phenomena or designing solutions to engineering problems
Substrand 1: Developing and using models
- Strand 4: Communicating reasons, arguments and ideas to others

RESOURCES

[New Vision for Science Science Curriculum](#)

[More 5E Explanation](#)

Teachers Pay Teachers- I will not link it, but there are a lot of them there

[MN 2019 Standards- Draft](#)