

Introduction to Integrating Science into CTE Classrooms, Part 2

PARTICIPANT GUIDE

As you go through the rest of the Introduction to Integrating Science into CTE Classrooms course, use this participant guide to take notes and brainstorm ideas for integrating science into your CTE lesson. To begin, select an existing CTE lesson you would like to enhance by integrating science into the CTE content. At the culmination of this course you will use your notes and ideas to modify your existing lesson plan so that it incorporates one or more scientific practices and includes the six essential elements of a science-enhanced lesson plan

Existing CTE lesson selected _____
Unit _____

Lesson 2.2: Incorporating the Scientific Practices

Start with the Embedded Science

Look for the embedded science in your lesson. Use the space below to write down your thoughts on the embedded science in your lesson.

Enhance Embedded Science through the Scientific Practices

For each scientific practice below, brainstorm how that scientific practice could help you enhance the embedded science you found in your lesson.

A | Plan and Implement Comparative and Descriptive Investigations

B | Design and Implement Experimental Investigations

C | Collect and Record Data

D | Construct Tables and Graphs to Organize Data

E | Analyze Data and Communicate Conclusions

Lesson 2.2: Incorporating the Scientific Practices (continued)

Brainstorm Activities Around the Scientific Practices

For each scientific practice below, brainstorm how you can incorporate that scientific practice into your existing lesson.

A | Plan and Implement Comparative and Descriptive Investigations

B | Design and Implement Experimental Investigations

C | Collect and Record Data

D | Construct Tables and Graphs to Organize Data

E | Analyze Data and Communicate Conclusions

Lesson 2.3: Following the Six Essential Elements

1 | Introduce the CTE Lesson

What are some creative ways you can introduce the CTE lesson?

2 | Assess Your Students' Pre-understanding of the Embedded Science

How will you assess your students' current level of understanding of the science?

3 | Teach the CTE Content and the Embedded Science Within

How will you teach the lesson (keeping the five core principles in mind)?

Lesson 2.3: Following the Six Essential Elements (continued)

4 | Create Activities with Authentic Application of CTE Using Inquiry

What types of activities could you use in your lesson?

5 | Provide Opportunities for the Students to Demonstrate their Understanding of the Science in this Lesson

How can you have your students demonstrate their understanding?

6 | Evaluate Through Formal Assessments of CTE and Science Knowledge and Skills

What are some options you could use to assess your students' understanding of the CTE and science?

Lesson 2.4: Collaborate with Others to Develop Multidisciplinary Curriculum

Identifying Curriculum Design Partners

Make a list of potential curriculum design partners.