

Secondary Curriculum & Instruction

INTENTIONAL PLANNING / FOCUSED TEACHING / AUTHENTIC LEARNING

Full STEAM Ahead

Connecting cross-curricular concepts anchors student learning. (Strategic Plan Goal Areas 1.1.1, 1.1.3, 2.2.1)

As the STEAM initiatives rolls through the district, please keep some things in mind. STEAM is about the opportunity for students, through your curriculum, to explore science, technology, engineering, art, and math concepts. You are not being asked to teach a subject or content with which you are not prepared, familiar, or adept. You are setting up opportunities for your students to connect what you are teaching to something else they might find interesting and meaningful.

One of my former teaching colleagues used a grid system (see page 2) to connect STEAM to his history classes. I stole the idea, with his permission, and modified it for use in my English and art classes. It allowed students to explore STEAM within the context and confines of the standards for my area.

In the example on the next page, students will have received primary instruction in the underlying concepts required during whole class instruction and small group demonstrations. Students are using the project grid to demonstrate their understanding of the learned processes and concepts in a variety of ways. Using a system like this one allows for student autonomy as well as accountability.

STEAM Grid for Ceramic Arts

Each student must complete the center space and any four squares touching the center. No square may be completed twice.

1

WORD WALLS

in use daily, tracked,
and documented

2

LESSON PLANS

standards linked & in
the team drive & on
your web page by 7:00
Monday morning

3

PLC

Follow the four
questions. Look at your
data to drive
instruction.

4

PACING GUIDES

Use and update to
reflect actual practice
and map your path.

<p>Formulate a glaze for a specific color, atmosphere, temperature range, and purpose (i.e. food safe, high fire, blue glaze) and test it.</p> <p>S: chemical formulas & properties T: research tools, scales & balances E: materials selection A: art processes M: calculating weights & ratios</p>	<p>Video and narrate a demonstration of a clay-making process, such as throwing a cylinder. Focus on why you use the techniques you've chosen.</p> <p>s: chemical & physical properties of clay T: video editing e: materials selection and usage A: Language Arts–Speaking and listening standards m: depends on selected projet</p>	<p>Complete at least 5 works in a series. Remember that a series should have shared elements (themes) as well as variations. Consider form, function, and surface in your designs. Be experimental. You will learn as much, if not more, from trying something new and failing than you will from doing the same things you have been doing in the same ways you have been doing them. Do not allow your series to become monotonous.</p>
<p>Formulate clay for a specific purpose (low fire, high fire, slip casting, hand building, sculpture, wheel throwing) and test it.</p> <p>S: chemical formulas & properties T: research tools, scales & balances E: materials selection A: art processes M: calculating weights & ratios</p>	<p>Unit Test</p>	<p>Teach a classmate to produce the CHS clay body. Carefully produce a 50# batch of clay for you and your partner to share. Start by teaching the safety protocols for working in the clay lab.</p> <p>S: chemical formulas and properties T: scales & balances E: materials selection A: art processes M: ratios and weight calculations</p>
<p>Load, ramp, and monitor the electric kiln for bisque firing.</p> <p>S: chemical & physical properties of clay t: kiln, kiln setter, thermocouple e: kiln stacking for efficient firing A: art processes m: time concepts, calculating ramp rates</p>	<p>Learn from me or from another student how to carefully produce a 50# batch of clay for you and your partner to share. Start by learning the safety protocols for working in the clay lab.</p> <p>S: chemical formulas and properties T: scales & balances E: materials selection A: art processes M: ratios and weight calculations</p>	<p>Research and present one primary concept from the unit to the class. (3-5 minutes, must be submitted at least one week prior to presentation to be vetted for accuracy.)</p> <p>S: physical & chemical properties T: research & presentation e: varies by concept A: art processes & speaking & listening standards for ELA m: varies by concept</p>

100% GRADUATION

In every grade level, and in every subject area, our goal is to reach 100% graduation for our students. What you do with your students every day should help to make sure your students are on track to graduate on time.