

### 3-D Printing

### Start Here

Imagine downloading instructions, clicking “print,” and in a few hours, your 3-D printer creates anything from a car part to a prosthetic limb. It sounds like science fiction but it’s becoming a reality for more people. In the past, only industrial companies used them to make prototypes and parts. Now, you can buy a basic model for as little as \$500. A 3-D printer works by spraying thin layers of plastic, metal, or ceramics that are built up into shapes. The possibility of someone printing something dangerous, like a gun, has raised security concerns.

**Anchor 8:** *Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism*

**Skill:** *Evaluate evidence*

<u>INSTRUCTIONAL STRATEGY</u>	<u>DIFFERENTIATION SUGGESTIONS</u>	<u>RESOURCE(S)</u>
<b>WHAT'S THE BEST EVIDENCE/TYPE OF EVIDENCE?</b>	<ul style="list-style-type: none"> <li>● Students investigate historical questions by reading primary document excerpts and utilize various reading strategies</li> <li>● Students evaluate the trustworthiness of multiple perspectives on historical issues</li> <li>● Students make claims based on documentary evidence</li> </ul>	Stanford History Education Group
<b>EXPLAIN THE EVIDENCE</b>		Graphic Organizer (GED Testing Service)
<b>VARIOUS ACTIVITIES</b>		Exercises from Writing for the GED Test 3 (New Readers Press) iCivics.org - free web resource

**Anchor 8:** *Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.*

**Skill:** *Quote without plagiarizing*

<u>INSTRUCTIONAL STRATEGY</u>	<u>DIFFERENTIATION SUGGESTIONS</u>	<u>RESOURCE(S)</u>
<p><b>SHORT QUOTE + EXPLANATION (“THIS MEANS...”)</b>            After each short quote (1-2 lines), instruct students to always start the next sentence with “This means...”            More advanced students will be able to incorporate this element in various ways, but for lower-level students, explicitly outline how to begin the explanation, or warrant, of each piece of evidence.</p>		
<p><b>QUOTE SPECIFIC CONCLUSIONS + EXPLANATION</b></p>		
<p><b>LIMIT QUOTES; LEAN TOWARD PARAPHRASING</b>            When using quotes, limit the number of direct quotes in your response</p>	<ul style="list-style-type: none"> <li>● no more than 2 in your response</li> <li>● no more than 1 per body paragraph</li> </ul>	
<p><b>START WITH “ACCORDING TO...”</b>            When using words that are not your own, begin the sentence with “According to (source), “(words from the text).” Then in your own words, explain why the quote is important to your claim.</p>	<ul style="list-style-type: none"> <li>● Lower levels: provide a complete sentence frame – for example: According to ____, the ____ [did] ____. This means that ____.</li> <li>● Higher levels: teach students to make a full citation</li> </ul>	MLA Formatting Quotations (Purdue OWL website)

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**Skill:** Paraphrase without plagiarizing

INSTRUCTIONAL STRATEGY	DIFFERENTIATION SUGGESTIONS	RESOURCE(S)
<p><b>CHANGE THE VERBS (&amp; ADJECTIVES)</b> Have students highlight or underline all the verbs in the passage. Next, instruct students to brainstorm synonyms for the highlighted/underlined verbs. Then, students need to choose synonyms that accurately replace each verb. After completing this step, the rest of the paraphrasing flows more naturally.</p>	<ul style="list-style-type: none"> <li>• Lower level: underline some or all of the verbs for them to find synonyms</li> <li>• Higher level: have students also identify adjectives that can be substituted</li> </ul> <p>This activity can be done individually, in pairs, or as a large group.</p>	
<p><b>WHO/WHERE? DID WHAT?</b> Identify who or where the passage is about? Then ask what happened (“Did what?”)</p>		
<p><b>READ &amp; RETELL</b> Read a text. Then turn the paper over and tell your partner what the text said.</p>		
<p><b>RESTATE STATE SUMMARIES</b> Read a state summary and then restate it in your own words</p>	<ul style="list-style-type: none"> <li>• Introduce paraphrasing rules</li> <li>• Provide short “state-by-state” summaries in USA Today</li> <li>• Select one and model paraphrase for students</li> <li>• Students select one state summary and paraphrase</li> </ul>	USA Today
<p><b>START WITH “ACCORDING TO...”</b> When using ideas that are not your own, start the sentence with “According to (source), put the ideas into your own words. Then explain how it’s important to your claim.</p>	<ul style="list-style-type: none"> <li>• Lower levels: provide a complete sentence frame – for example: According to ____, the ____ [did] ____. This means that ____.</li> </ul>	