Using a Synthesis Matrix to Improve Information Literacy and Scientific Writing Skills

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Low to high-level learning goals can be addressed using a synthesis matrix:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Source 1 (Author, Year) | Source 2 (Author, Year) | Source 3 (Author, Year) | Source 4 (Author, Year) | Class Data? |
| Type of Source (Popular or Scholarly) |  |  |  |  |  |
| Type of Scholarly Source (primary or secondary article) |  |  |  |  |  |
| Author’s credibility |  |  |  |  |  |
| Hypothesis or Question |  |  |  |  |  |
| Study Population or Model System |  |  |  |  |  |
| Methods |  |  |  |  |  |
| Summary of Results |  |  |  |  |  |
| Strengths |  |  |  |  |  |
| Weaknesses |  |  |  |  |  |
| Remaining Gaps in Knowledge |  |  |  |  |  |

Students can use a completed matrix to:

* Generate hypotheses
* Design experiments
* Generate models +/- their own results
* Choose appropriate references for a writing assignment
* Synthesize information from multiple sources to complete a scientific writing assignments