Writing to Learn Science

Writing to *communicate* understanding

vs.

Writing to *transform* understanding

Transforming Knowledge through the Interplay Between Writing and Content

See handout page 2 for testimonials about writing in STEM.
Best Practices for Creating Assignments

• Use accessible sources
• Provide models or examples
• Specify genre
• Indicate audience and purpose
• Require revision
• Include criteria or a rubric
Align Writing Prompts with Learning Goals

“If you can’t explain it simply, you don’t understand it well enough.” - Einstein

**Learning Goal**: Conceptual explanation of sound and waves

**Audience**: High school orchestra and band students

**Purpose**: Explain how musical instruments work using what you have learned about waves in physics class
Identify Content in Your Field and Specify Audience and Purpose

Activity 1
1) Identify 1-2 topics from a course that you teach in which writing for a novice or non-scientist audience would support your learning goals.

2) Identify an audience and a purpose for the writing.

3) Compare and contrast with your neighbors.
Best Practices for Peer Review

• Specify process
• Provide a rubric
• Make stakes clear
• Offer models of the process
• Insist on respectful language
• Point out value for responder
Peer Review to facilitate peer-peer teaching & learning

Activity 2:
1. Skim the sample essays on page 7 of your handout.

2. Identify passages where the student was effective and ineffective at describing waves to a non-science/musician audience. Discuss with your neighbors.
Peer Review to facilitate peer-peer teaching & learning

Activity:
1. Skim the sample essays on page 7 of your handouts.

2. Identify passage where the student was effective and ineffective at describing waves to a non-science/musician audience. Discuss with your neighbors.

3. Identify and describe two guiding requirements that will direct students to engage with the specific content that you identified for your classroom.
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