***Annotated Student Drawings***

**﻿Description**

*Annotated Student Drawings* are student-made, labeled illustrations that visually represent and describe students' thinking about desired concepts.

**﻿How this FACT promotes Student Learning**

*Annotated Student Drawings* encourage students to access their prior knowledge and visually represent their thinking. The act of drawing to explain a concept encourages sense making and awareness of one's own ideas. Students are challenged to think about how to visually represent and explain an idea with minimal use of words. Students who are strong visual learners and communicators may find this technique especially helpful. These students are often at a disadvantage on written assessments that involve text only. This FACT gives them an outlet for sharing their thoughts.

**﻿How this FACT informs Instruction**

*Annotated Student Drawings* can be used at the beginning of a learning cycle to engage students in a topic they are familiar with. The teacher can identify conceptual difficulties that students have stemming from prior knowledge or experiences. They can also be used to see how students use the terminology. Graphic images, terminology used, and descriptions that explain the drawing may reveal gaps and misconceptions that can be addressed in subsequent lessons.

This FACT can also be used after students have had an opportunity to develop ideas during the concept-development phase. Teachers can examine the drawings and descriptions for indications of the need to clarify terminology, provide feedback to individual students on selected aspects of their drawings, or provide additional learning opportunities to further solidify understanding. Selected drawings can be used with the whole class to support concept development by giving the class an opportunity to examine each others' drawings, ask further questions, and provide peer feedback on the accuracy and appropriateness of their drawings and use of terminology.

The drawings can also be used for student reflection. Drawings made before instruction can be revisited to allow students to reflect on what they have learned and to describe learning experiences that helped them gain new understandings. As a self-assessment activity, students can be given an opportunity to revise their drawings, labeled terminology, and descriptions based on what they now understand, describing how and why their new drawing differs from their first one. This information can be used by the teacher to evaluate the effectiveness of the instruction and to address student misconceptions.

**﻿Design and Administration**

Choose an idea that is central to the curricular topic and that can be represented through students' drawing. Provide a clear prompt for the drawing that will elicit the information that you are seeking. Show students an example from a familiar topic the first time you use this strategy, pointing out how annotations are used to briefly explain or label important ideas and words depicted in the drawing. Emphasize that you are more interested in their ideas that the right answer or artistic quality of their drawings. While circulating among students and examining their drawings, ask probing questions to promote deeper thinking. After students have completed their drawings, provide an opportunity for them to talk about their drawings and receive feedback on their ideas from peers as well as the teacher.

**﻿General Implementation Attributes**

Ease of use: Medium Time Demand: Medium Cognitive Demand: Medium

**﻿Modifications**

Consider having younger students verbally describe and name parts of their drawings while the teacher annotates it for them. This FACT can also be administered as a small group assessment, using a large sheet of paper or whiteboards. Students work collaboratively, discussing their ideas as they reach consensus on the visual components and annotations that should be included in the drawing.

**﻿Caveats**

It is best to use this FACT as an in-class activity. Doing this in class ensures that students will represent their own thinking without accessing information from other sources. This is important because the purpose of this acitivity is to find out what is on your students' minds. This" activity may be frustrating for students who are strong in verbal abilities and weak in artistic ability. A suggested caution is to be careful when praising students who exhibit strong artistic ability as it may signify to other students that their drawings are "not as good" and detract from the purpose of making their ideas visible.

**﻿Other Disciplines that can use this FACT**

Science, math, social studies, health

Keeley, Paige. (2008) *Science Formative Assessment: 75 Practical Strategies for Linking Assessment, Instruction, and Learning.* Thousand Oaks, CA: Corwin Press