

### **Level 3: Student critiques the form of justification used when comparing two arguments**

**Goal:** Students will be able to critique two sophisticated arguments, each with multiple justifications, choosing which is stronger, based on their understanding of the relative value of the justifications included in each.

**Teaching Strategy:** Compare and Contrast two arguments, examining relative strength of each

**Works Best With:** small group or pairs (unless the whole class is at this level)  
**Details**

#### **Preparation:**

- Find or create arguments with multiple justifications used in each argument. If they haven't been used often before, you can reuse the sample arguments on this website as well. You may also want to consider finding short articles in the media for students to critique.

#### **Teaching:**

- Provide students with two arguments and ask them to first read each argument independently, identifying various forms of justification in each argument by circling them, underlining them or providing descriptions of each justification.
- Provide students with a T-chart or a Venn diagram into which they will identify and write the forms of justification they find. If two arguments share a form of justification (the same type, such as data) then use the Venn diagram, so students can see this similarity.
- Ask student pairs to discuss what they found in their analysis of the two arguments, with emphasis on deciding which argument is stronger or more convincing. Point out that this isn't always possible to do just by comparing forms of justification when you are analyzing more complex, sophisticated arguments.
- If students may have some difficulty deciding which argument is stronger when examining arguments that contain multiple forms of justification, especially if the arguments you use are of about the same quality (both containing reasonable forms of justification), remind them that this is not unusual for more complex arguments. Tell them that they will now need to carefully re-read and discuss each justification, and then discuss again which argument is more convincing after this closer look.

- Encourage students to look at one argument at a time. They can first take each justification and carefully and thoroughly discuss it with their partner, trying to determine if they think it is valuable. They should try to analyze each piece and decide if it is convincing on its own, then in relation to the other justifications in the argument. Then, students should repeat this with the second argument.
- Next, in pairs, each student should share which argument he or she feels is stronger or more convincing, based on this more careful analysis. Students do not need to agree, but they should be able to explain the reasons for their choices.
- Have students write down their reasons for choosing one argument over the other.

## **Resources**

· **Sample T-chart**

**Sample Venn Diagram**

## **Why This Matters:**

Students will need practice maintaining the skill of critiquing arguments that they read and becoming adept at doing this with more complex arguments. Students at this level should be challenged to think through arguments that contain multiple forms of justifications, where the answer as to which is the strongest argument (based on an analysis of the forms of justification) is not completely clear. Since this is the case with most scientific arguments outside of the classroom, it is important to have students practice this reasoning skill using their knowledge of different common forms of justification. This activity is a good opportunity to allow students to use their argumentation skills in ways that can benefit them beyond the science classroom. In addition, you might want to consider finding example arguments from the media -- newspapers, magazines, etc -- and asking students to critique them based on their understanding of the concepts about argumentation that you are working on in class.