Example #1 of using the jigsaw technique with reading assignments on different, but related, topics

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This is a very simple jigsaw assignment with only two teams and with little guidance on pre-class preparation other than to answer a few simple questions and prepare a summary (see example #2 for contrast). Here are a few things to note:

- Written preparations are collected at the start of class (students bring two copies to class, one to turn in and one to work with during class).
- At the start of class, I divide the class into their respective teams to share ideas about how they will teach what they know to a member from the other team and to clear up any confusions. Because this is a two-team assignment, each team consists of nearly a dozen people. During the team meetings, I divide each team up into smaller subteams of 3-5 so that they can work effectively. At the beginning of class, then, the class is divided into teams of 3-5, with several team #1's and several team #2's. My TA volunteers and I circulate to make sure that each team is on the right track before forming mixed groups.
- After all teams are ready, students pair up with a member from the other team. If there are an odd number of people in the class, one group will have three instead of two.

Smelting in Pre-colonial Africa

When thinking about minerals in Africa, we tend to link African mineral exploitation to the Europeans. People commonly believe that civilization and technology on the African continent were practically nonexistent until Europeans began to explore the region. In reality, pre-colonial African societies flourished south of the Sahara, and Africans were both culturally and technologically active long before European nations invaded the African continent. Some very recent archaeological evidence even suggests that smelting of metallic ores may have originated in Africa, not in Eurasia as everyone has assumed for years.

Everyone reads: Herbert, Eugenia, 1984, Red gold of Africa: Madison, WI, Univ. of Wisconsin Press, p. 3-11.

Write short answers to the following: What are metallic ores? What is smelting, and why is it necessary? How did smelting likely originate? Are all metallic ores equally easy/difficult to smelt? Bring two copies of your answers.

Team 1: the metallurgists
Write a summary outlining the smelting process described in the article listed below and indicate what happens chemically during the various steps of preparing and smelting iron ore in traditional fashion. Bring two copies of your summary to class.

Van Noten, Francis and Raymaekers, Jan, 1988, Early iron smelting in Central Africa: Scientific American June 1988, p. 104-111.

Team 2: the ritualists
Write a summary outlining the smelting process described in the articles listed below and indicate what the ritualistic significance is of the various steps in preparing and smelting iron ore in traditional fashion. Bring two copies of your summary to class.

Rowlands, Michael and Warnier, Jean-Pierre, 1993, The magical production of iron in the Cameroon Grassfields, in, Shaw, T., Sinclair, P., Andah, B., and Okpoko, A., eds., The archaeology of Africa: London, Routledge, p. 520-530.

Collett, D.P., 1993, Metaphors and representations associated with precolonial iron-smelting in eastern and southern Africa, in, Shaw, T., Sinclair, P., Andah, B., and Okpoko, A., eds., The archaeology of Africa: London, Routledge, p. 502-504.

In class: In class, you will be paired with a person from the other team. Compare what you learned about the ritualistic and metallurgical aspects of smelting. What does "ritual" mean? Which ritualistic aspects have a basis in metallurgy? What does each of those steps accomplish? Which steps are purely ritual?

Follow-up written assignment: After class, write a short paper answering the questions listed under "in class"; turn it in on Friday.