

Reading Configuration Drawings and Working As a Team to Build CLASs

Overview: Teach students to read a configuration drawing and work as a team to create a model from the configuration drawing.

2013 Alabama Language Arts Common Core Objectives:

- Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text. [RI.9-10.2]
- Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them. [RI.9-10.3]
- By the end of Grade 10, read and comprehend literary nonfiction at the high end of the Grades 9-10 text complexity band independently and proficiently. [RI.9-10.10]
- Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *Grade 10 topics, texts, and issues*, building on others' ideas and expressing their own clearly and persuasively. [SL.9-10.1]
 - a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. [SL.9-10.1a]

Objectives: Students will learn to work together as a team.

Students will learn to communicate effectively.

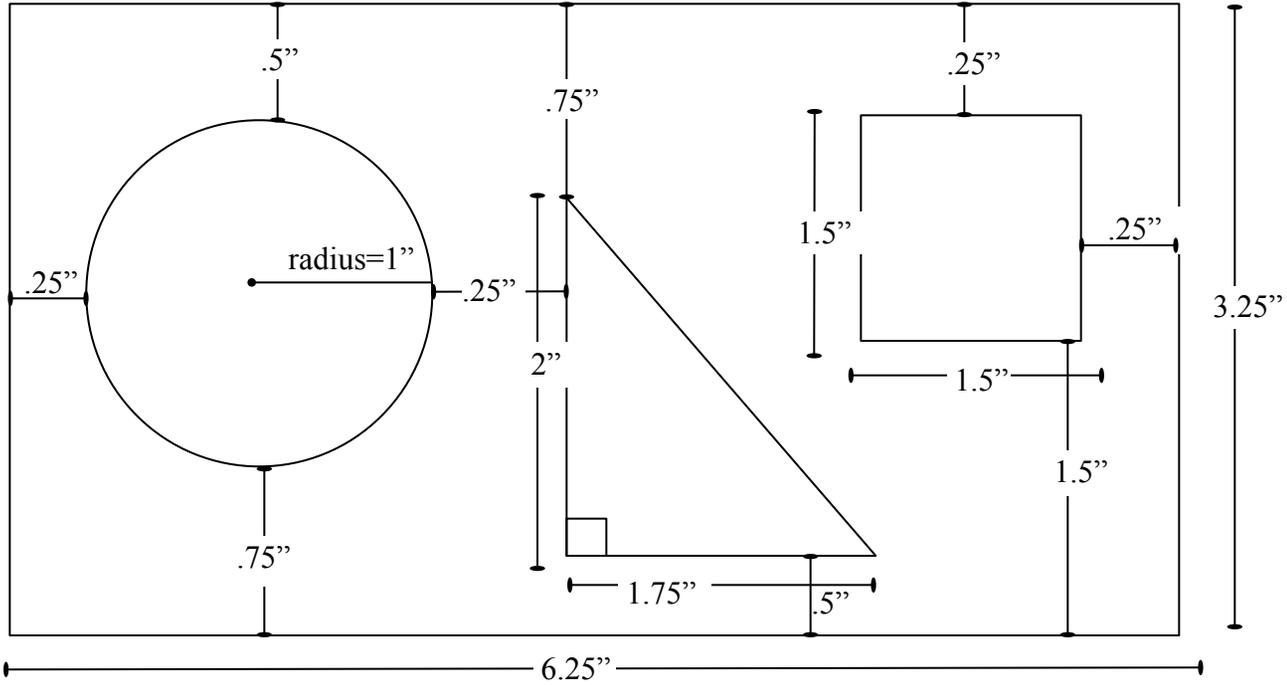
Students will learn to read a drawing and show competence by creating a model from the drawing.

- Materials:
- * Paper for each team
 - * Scissors for each team
 - * Compass for each team
 - * Rulers or tape measures for each team
 - * Tape or glue for each team (if glue is used, the activity may take longer if students do not place the pieces in the correct places because they may have to start over)
 - * Copies of the configuration drawing for each team (this should show a "blue print" of the structure as well as the measurements of each part required to build the structure and their placement relative to one another)
 - * Stopwatches for each team
 - * 6 students (or more) per team

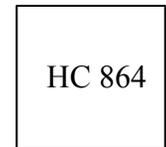
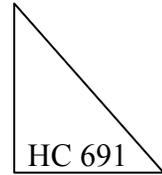
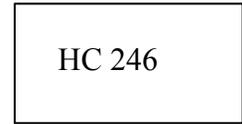
Procedure:

- ◆ Break class into two teams, leaving two students out to be quality assurance agents.
- ◆ Teams will assign one person as the keeper of the drawing, one person as the timekeeper, one person as the supplier, and one person as the speaker. All other team members will be builders.
- ◆ The keeper of the drawing may only show it to the speaker.
- ◆ The speaker may only communicate with the other team members; he or she cannot build.
- ◆ The timekeeper will use the stopwatch to determine how long the building process has taken.
- ◆ The supplier will hold the building materials and tools. He or she will control the distribution of the materials and tools.
- ◆ Other team members will be builders.
- ◆ Assign a quality assurance agent to each team. The QA is not really a member of the team. He or she will inform the speaker of the team to which he or she is assigned if the building is of acceptable quality or not both during the building and after completion. The QA will sign off after the construction of each part. (He or she can initial the configuration drawing on the parts list for each part). He or she must also sign off on the final assembly. (Again, this could be done on the configuration sheet below the assembly drawing for the CLAS (Cooperative Learning Assembled Shape)).
- ◆ Once students understand their jobs, let timekeepers start the clock, and students will begin building.
- ◆ The QAs will assess the finished CLAS.
- ◆ Afterwards, analyze the process: the communication (or lack thereof) involved, the teamwork, the success or difficulty reading the configuration document.

CLAS Specifications



Parts List



Note: Drawing not to scale!