Team Roles

**Taskmaster:** Brings order and direction. The taskmaster checks to make sure all group members understand what needs to be done and who is doing what. Monitors the group's progress according to the timeline and the listed tasks. Calls for check-ins, keeps the group on task, and distributes work.

**Time Keeper:** Keeps the group aware of time constraints and deadlines and makes sure work starts on time and that no time is being wasted. Makes sure group focuses on most important issues and does not get caught up in details. Gives estimates of how much time can be allotted to each phase of the project or each task. The time keeper makes frequent time announcements and makes adjustments to the schedule as deadlines are either met or they are not. Often a group's success depends on their use of time.

**Facilitator:** Brings fairness and peace, or harmony. The group facilitator makes sure that everyone is heard and that all team members participate actively. They moderate team discussion by encouraging other team members to listen and may restate or paraphrase the ideas of all the teammates. Strives to create a harmonious and positive team atmosphere where everyone is included, teammates compromise and the group is able reach consensus. Often the facilitator spends more time listening and restating other's ideas rather than sharing his own ideas.

**Inspector:** Improves the quality of the group's work. The inspector keeps the group focused on goals and criteria. Uses the checklist or instructions and a reference to review the group's work. Notes when the criteria are met and notices when work products do not meet the criteria. Makes suggestions for improvements.

**Recorder/Reporter:** Takes notes during discussions and give summary of shared ideas and group decisions. Keeps the group's work, organized materials, and stores all of the important documents. Serves as group spokesperson to the class or instructor, summarizing the group's activities and or conclusions.
Lesson 12

Role Assignments

Taskmaster ________________  Time Keeper ________________
Facilitator ________________  Inspector ________________
Recorder/Reporter ____________

What is your role on your team? What does that mean you will be doing throughout this project?

What do you think you will be good at in this role?

What do you think you might need help with?
Defending your ideas

How do you know that your structure will be strong and stable?

Scientists and engineers must make arguments to defend their ideas. When you hear the word “argument” you may think of a fight, but really an argument is a reason or set of reasons given to persuade others that something is right or wrong.

Your decisions should be based on EVIDENCE and REASONING

<table>
<thead>
<tr>
<th>Evidence</th>
<th>Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gives specific examples from observations from experiments</td>
<td>Uses the word “because”</td>
</tr>
<tr>
<td>Gives examples from observations from the world</td>
<td>Uses logic “if . . then . . “</td>
</tr>
<tr>
<td></td>
<td>Uses known rules</td>
</tr>
</tbody>
</table>

How do you know that your structure will be strong and stable?

Things to consider:

What materials did you use? Why?

How did you arrange the materials? Why?

How did you join the materials? Why?
Lesson 12

How do you know that your structure will be strong and stable?

**Claim:**

Our structure will be strong and stable.

**Evidence:**

What observations of materials or the arrangement of materials have you seen in other experiments or in the world? What do you know from past experiences?

**Reasoning:**

How does this knowledge (your evidence) connect to the design of your tower?