



## Competitive Event Prep Chapter 6

# Materials Summary

### Identify

Material processes include fastening, gluing, forming, and shaping. These processes are critical when participating in a variety of competitive events. The fact that a project has to be transported to the location of activities sponsored by TSA, Skills USA, and FIRST requires all students to understand material properties. Otherwise, a student's project may be damaged in transit.

### Set Up

Review the competitive event synopsis. Determine any specifications or regulations related to material usage. Investigate any budget constraints. Observe your classroom for availability of those materials.

### Execute

Locate one building material (such as plywood, pine, acrylic, or sheet metal). Develop a one-page summary that includes the following information about the material's properties.

- Compression/tension/shearing strength
- Appropriate fasteners
- Machinability
- Ability to be finished
- Impact from climate change
- Durability
- Cost

Can the material be shipped by plane, or will an alternate transportation method be necessary?

### Evaluate

Does your one-page summary provide enough information to enable a classmate to choose a material?

### Share

Make the summary available to all classmates to use as a component of their documentation.

Encourage your teacher to gather each student's work into a portfolio that can be given each year to other students.