

Lesson 15 Building with Basswood Strips (Catapult II).

Objectives: Students experience how adding a triangle to a right-angle glue joint makes the joint stronger.

Students experience how the thickness of a piece of material effects measurements when building a 2- or 3-dimensional object

Materials: Partially completed projects from previous lesson, glue guns, hot glue, small triangular pieces of poster board, marshmallows in ziplock bags, short pieces of plastic tubing, 3/16 inch dowel cut into 2 inch lengths (one per student), film canister lids, corner jointers. Basswood strips of lengths specified by students in the previous lesson when designing a 10 cm basswood cube.

Sponge: Students review catapult agreement and their designs for a 10 cm cube.

Initial

Discussion: Show students what they need to do to complete the catapult. Explain rotation of groups, which includes gluing catapult pieces, assembling catapults, and building the cubes they designed during the previous lesson. Students will wait until all groups have completed their projects before they test their catapults

Project: Students glue pieces together as in sample, then assemble all pieces. While waiting, groups will discuss how to build a 10 cm cube with the basswood pieces they requested in the worksheet for the previous lesson. Students will complete the worksheet for building the 10 cm cube, and if time permits, they will glue the cubes together.

Vocabulary: corner jointer

Final

Discussion: Students will show off their basswood cubes and will try out their catapults. Students will discuss how the catapults work. Teams will compete to see which group can fling a marshmallow the farthest.

Clean up:

Home

Connection: Show catapults to families and tell families how they made them. Students should promise to only use marshmallows with their catapults.