



Comox Valley Schools

A Community of Learners

INNOVATIVE • INQUISITIVE • INCLUSIVE

Cabin Tray



ADST Project

Cabin trays are a great ADST project for students in grades 5.

The first thing that you will need to do as a teacher, is get trained in using your school Maker Cart. Once you are Safe and Certified you will need to do an inventory on your ADST Toolbox kits (there are 12 for your school) and your Maker Cart. Each cart and your 12 kits have master lists of what should be in them. If you are not sure or if you will need additional resources, please contact your District Careers Coordinator and they will be able to help you, Dawn.Anderson@sd71.bc.ca or Steve.Claassen@sd71.bc.ca

Jr. ADST (Applied Design Skills and Technology)

ADST courses have been designed so that students can gain hands-on learning experiences and skills through design and creation. The Curricular Competencies within these courses ask students to understand context, define what they need to do, ideate with others and evaluate, prototype, test their ideas, make and share.

With this, these booklets have been designed to support new to experienced users and there are many ways to approach each step.

Feel free to challenge your students to come up with new ways to compete a step in the booklet. Some of the steps are challenging and should be completed with a partner.

Please share if you have a good approach to a step and we can tweak the booklet for all.

For this project you will need the following items:

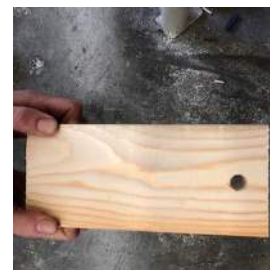
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|------------------------------------|-------------------------------|
| 1. Hammer | 7. Hand Saw |
| 2. F Clamp | 8. 1 & 1 ½ Inch Nails |
| 3. Measuring Tape | 9. Sandpaper |
| 4. Safety Glasses for each student | 10. 1, 1" x 4" piece of wood, |
| max 4' | |
| 5. Ear Plugs (if wanted) | 11. Cedar Lath, 4' long max |
| 6. Stain | 12. Rope |
- Wood glue if angling corners or creating slots.



STEP 1:

All students will need to be given the parameters of the project.

1. Materials for build: rope, stain, 1 & 1 ½" nails, lath 4' long, 1x4 4' long.
2. Students will need to plan their project, use the Design Thinking planning sheet attached.
3. Students will need to present their plans to the teacher for approval.
4. Things to remind students of when planning and prototyping:
 - a. Use a partner when pre-drilling nail holes and nailing together
 - b. Clamp wood if drilling holes for rope, use ½" drill bit.
 - c. Re-measure for lath once frame is together



- d. Note what your intended purpose is and how close to bottom you need to lay the lath so things don't fall out of spaces.

STEP 2:

Students will now need to set up for building. They will need to make sure their safety gear is on, ear plugs (if desired) and safety glasses. They will need to share a toolbox tote with one other student and have a stable working space that is clear of debris and where they can clamp down wood with the F clamp.

STEP 3:

Students will now need to consider any additional learning pieces that they may need to research prior to building if they didn't do this in their planning phase. Ex. How do you cut angles, what is the best method for joining corners. How do I read my measuring tape in imperial.

Ex. Resources:

Imperial Measurement: https://www.youtube.com/watch?v=P_GFU7wIVh0

Speed Square explained: <https://www.youtube.com/watch?v=xa9HZQV0W-Q>

Angle measurement with a speed square: <https://www.youtube.com/watch?v=LplbbFKNGXM>

STEP 4:

Students will now start making their cuts for their project. I suggest making each cut and then double checking to make sure it's the correct size. Students will need to make the frame and then add the lath.

Double check that they have this planned out correctly.

Students will want to make sure that they pre-drill their nail holes for the 1 x 4. These will need to be drilled 1" in from each end. They will not need to pre-drill for the lath.

Nails: When nailing together

- 1x4 = use 1 ½" nails
- Lath- use 1" nails

Wood Glue: If students are going to do angled corners (45 degree) they will want to wood glue their corners.



Considerations:

Try not to show these to students in the beginning, see what they can ideate on their own. Make sure they have their purpose in mind 😊

This could hold flowers/plants or cutlery

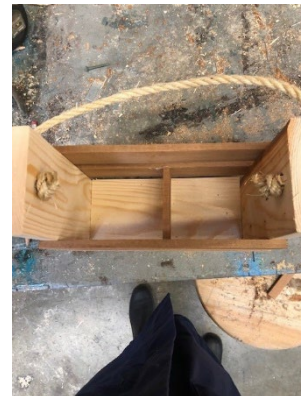


These could carry items



Students could carry drinks in it and make the one above wider and have lath on the ends holding two pieces of 1x4 together or use 1x4 sideways on the ends.

Many options 😊



Design Thinking Planning Sheet

Name: _____

Empathize: Who is this for Why do they need it What do you need to consider so that they can use it?	Define: What are you going to make What do you need to learn more about What are going to be your challenges	Ideate Draw out what you are going to make Consider sizing and resources
Ideate Draw out idea #2	Ideate Do you have a third idea	Confirming Ideations What is your final plan What are you going to build, get feedback.
Prototype Make it, take your time, ask for help if needed.	Test Does it do what you intended it to do?	Reflection and Feedback What would you alter What would you do different next time