

Infinity Cube



ADST Project

Infinity Cubes are a great ADST project for students in grades 4/5. The first thing that you will need to do as a teacher, is get trained in using your school Maker Cart/Toolbox. Once you are Safe and Certified you will need to do an inventory on your ADST Toolbox kits (there are 12 totes with hand tools 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 complete 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:

1. Hand saw
2. Duct Tape
3. Bench Hook
4. Measuring Tape
5. Safety Glasses
6. 8" long piece of $\frac{3}{4}$ " cedar



Once you have everything you are ready to start your project. Don't forget to put on your safety glasses.

Step 1:

To start, students will need to cut an 8" piece of wood. To do this, they will use their bench hook, hand saw and measuring tape.



Step 2:

Once they have their 8" piece of wood they will measure out, one measure at a time, $\frac{3}{4}$ ". Please note, there is wood loss when you cut, make sure they place the saw blade on the outside edge of the line so that the piece they cut is a perfect cube.



Step 3: This is not a mandatory step but makes the finished product a little nicer looking.

Add a small squirt of watercolor paint to a bowl and dilute it with water. I like to have a very thin wash for this so that the wood really shows through. Stir it so that the paint is totally dissolved. Mix in your cubes and let them sit for a few minutes. Remove, place on paper towels to dry, and wait until it's totally dry before proceeding.



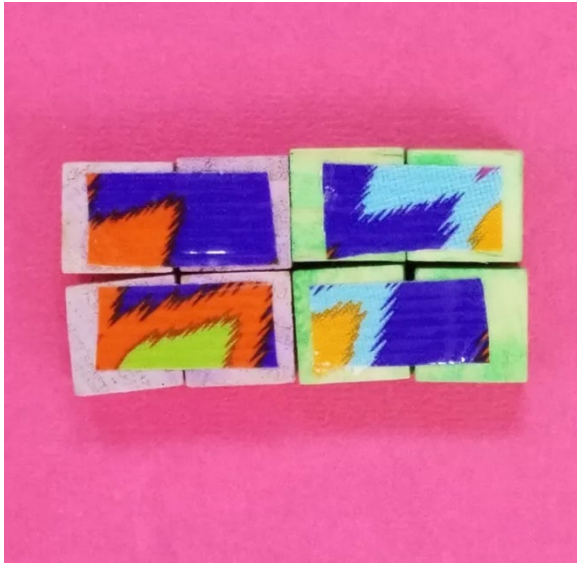
Step 4:

Place your cubes on a flat surface in two rows of four cubes each.



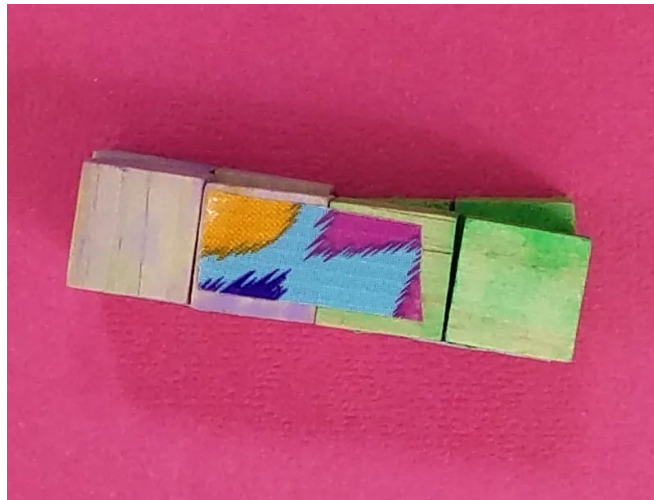
Step 5:

Tape them horizontally into four groups of two as pictured: The two top right together, the two top left, the two bottom right, and the two bottom left.



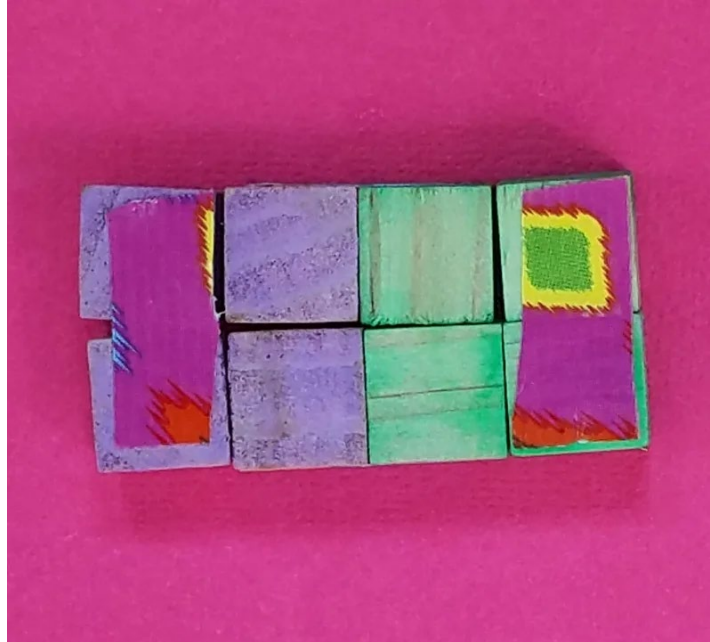
Step 6:

Turn the entire thing on its side, and a piece of tape horizontally connecting the two center cubes. Repeat with the other side.



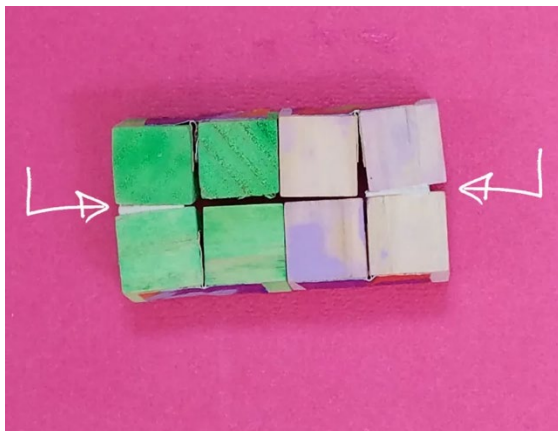
Step 7:

Flip your cubes so that the side you taped in step 3 is now facing down. Add two vertical pieces of tape to the right two and left two cubes.



Step 8:

Your cube is now totally taped in place, but to reinforce it, you'll want to find the spots where the back of the tape shows – as pictured.... And cover it with corresponding pieces of tape.



Your infinity cube is now ready to be played with!

Reference: <https://www.momsandcrafters.com/infinity-cube-diy/>