

In this uncertain time we want to provide teachers and parents with resources for at home learning. In this blog we will share ideas for using the resources at home with parents and for teachers to assign in their online learning environments.

## Building a Tower

This video is from a student explaining how they tackled a challenge for building a tower that would hold a tennis ball. I saw this post on Twitter and reached out to get permission to share this as a lesson idea. I was impressed with the details given by the student and it inspired me to create a building tower challenge. You should NOT make a store trip to do this activity, only use items around your house.

### **At Home Recommendations**

Before watching, tell the learner to pick out a toy for an activity. Do not talk about tower building yet. In the video they use a tennis ball, you could do that or allow them to choose a toy.

### **Watch the video.**

### **After watching**

1. Ask the learner to think about the toy they chose. Can they build a tower to hold that toy? Do they think the toy is too heavy and need to reselect?
2. Have learners collect used paper from around the house. They may need help deciding what is used and what is new. You may also want to discuss if cardboard is considered paper. For this challenge I would say no, but that can be decided if it comes up. They can also use tape in the challenge IF you allow it.

Now - do you say build and step back or do you work together problem solving as you go? That is up to you, based on the learners age, ability, and independence.

3. Tell the learner to sketch the design they have in their head. They can add labels to their design to help them think.
4. Create the tower, ask questions like "what are you using", "why did you decide to fold like that", "we are using paper and tape now, but what other supplies would be handy".
5. Take a picture of the structure. Test the structure.
6. Discuss what worked and what needs improvement. This is a great time to talk about growth mindset and how not everything works right all the time.
7. Go back to the sketch, think through changes. You can discuss them together or allow learners to work on their own.
8. Retest and go through the process of think, change, test as often as needed. If the learner has selected a toy that is too heavy, you may want to suggest a change of object. You may want to take a picture with each test for record keeping and an extension activity.
9. Continue working until the learner is successful or until you run out of materials or patience. If the learner gets frustrated, suggest leaving it and coming back after their mind has reset and they have other ideas.

10. After the second build, you could expand the challenge and ask what other building materials they may need to add to the paper supply. Let the learner brainstorm ideas that are not premade (like a book or pan) that they could add. Possible supports and additional materials could be Lego, popsicle sticks, paper towel rolls, cereal boxes. Take pictures as they test new materials.
11. Have students create a writing/drawing based on their activity. They can do a procedural writing giving the steps of how they worked (like this list of directions). They can write a narrative story "Today I took on the paper tower challenge", or they can write about their feelings and actions "When I was first building the tower I felt \_\_, so I ... Then..."

Extension activity: Use the pictures you took and create a Google Slideshow, or Adobe Spark Video combining the building and writing.

DEVELOPING A **GROWTH MINDSET**



<b>INSTEAD OF.....</b>	<b>TRY THINKING....</b>
I'm not good at this	What am I missing?
I give up	I'll use a different strategy
It's good enough	Is this really my best work?
I can't make this any better	I can always improve
This is too hard	This may take some time
I made a mistake	Mistakes help me to learn
I just can't do this	I am going to train my brain
I'll never be that smart	I will learn how to do this
Plan A didn't work	There's always Plan B
My friend can do it	I will learn from them

from <https://kidtalkfrisco.com/growth-mindset/>