

Quick Team Lego Build Going from individual ideas to group consensus



Grade level(s) I use with: this is my usual Day 2 lesson with my 3rd and 4th grade classes, coming right after they have each created their own individual creations. Depending on the group, I've also found this lesson to be really helpful if I have a particularly challenging 5th / 6th or even 7th / 8th grade class. The challenge is not engagement as I find every age group gets excited to have time just to play and create with Legos. The only reason I typically don't is they've done it in 3rd / 4th and there are no shortage of other lessons ready to have them dive into.

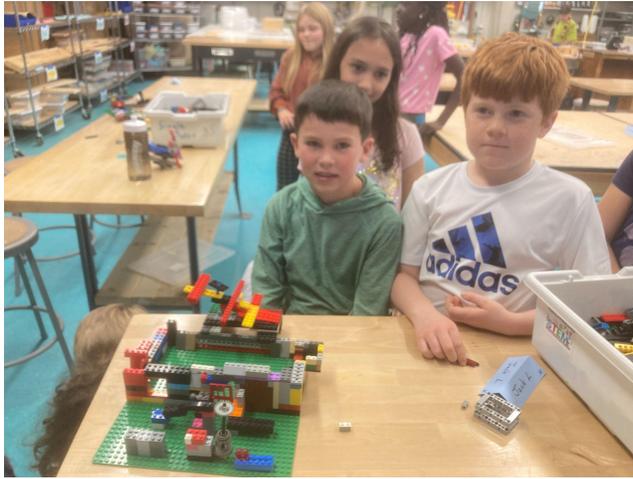


Lesson Overview: - I will never claim to be an experienced primary school teacher, and have more than a few stories to share of lessons that have been less than successful since i've been given the opportunity to stretch my skills offering Design Tech classes to 3rd and 4th graders. One thing I've learned is that group work is incredibly challenging for most of these students and that has led to this initial sequence of lessons for the first 3 days of our classes together.

Day 1 - this is an introduction to the Creation Studio since often it is their visit ever to our Makerspace. We cover our three basic norm: respect yourself, others and this place, ask before touching anything not on your table, and participate to the best of your ability. Once we've shared these and why they are so important to guide our time together, their first assignment is to select up to 15 pieces from my lego bins and create a rapid prototype that represents something important to them - a favorite pet,



person, food or activity. This is a quick 5 minute build, but allows me to also teach the system for storing incomplete work on their class shelves as well as our cleanup process.



Day 2 - we review the norms, expanding on what “respect” looks like in various aspects of learning in our space and then after a quick session of continued building share our creations with each other. Then we disassemble every model in our table groups (usually 3-4 students) and they are tasked with working together to identify one project that they all agree would be fun to build from those specific pieces. Every time this is extremely challenging for at least a couple groups who are unable to think beyond what they have already made with the pieces and really challenged to consider any

alternatives. Within five minutes nearly every team has been able to come up with a common idea, and at that point I also expand their lego supplies to include an entire new bin and sometimes expand the possible materials to include k’nex and pipe cleaners if they seem like they would be useful in creating their vision. Inevitably I’ll have to support a few groups that will revert from their collaboration ideas to parallel play - each making their own ideas in isolation. But overall this is a near surefire, high engagement activity that really lets me reinforce the idea of authentic collaboration and gives me a strong sense of the group dynamics for the remainder of our days together. Typically I let this exercise run for about 30 minutes and then we conclude with group photo opps and sharing of their creations.

Materials and equipment I use:

One mindstorms bin full of a random collection of LEGO pieces (pretty much anything you can imagine that I’ve collected over the years with the exception of LEGO people - I find these are way too distracting). . I have 8 of these that are completely randomly unsorted, but that are always available for a student who needs a building break.

Ongoing questions and ideas for the future: I have found that if students know that I’m able to capture a picture of their creations it is much easier for them to quickly take apart something that they’ve spent nearly an hour putting together. For this I love to use Seesaw, our district platform for sharing schoolwork with 3rd and 4th grade families.