

# brackitz®

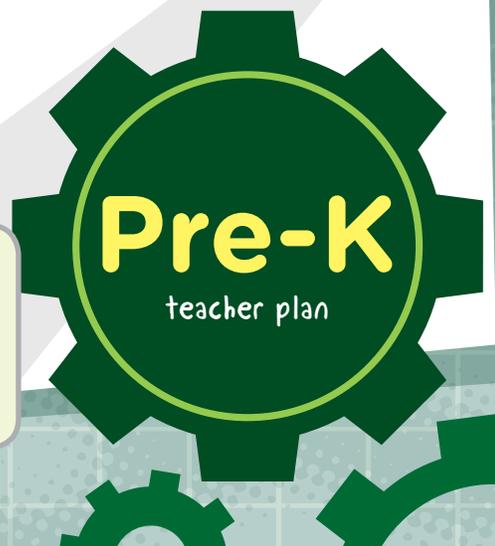
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LESSONS

# MOVING AROUND



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# Lesson 5: MOVING AROUND



Students apply their understanding of designing for a user to a wider system of designs and needs.

## Objectives:



Students will continue to collaborate as they design, considering that what they make relates to more than one need. "I can design to solve more than one problem or constraint," and "I know a design will not be perfect the first time."

## Vocabulary used in this activity:

design, structures, protection, pathways, vehicles, connectors, bridges, tunnels

## Standards

**NY State Pre-K Foundation for Common Core**

**Social Development** - Compares and/or contrasts self to others, Exhibits self confidence by attempting new tasks independent of prompting or reinforcement, Displays accomplishment, contentment, and acknowledgement when completing a task or solving a problem by himself/herself

**NY State Pre-K Foundation for Common Core**

**Math** - Describe and compare measurable attributes, Analyze, compare, and sort objects, Identify measurable attributes of objects, such as length, and weight. Describe them using correct vocabulary, Create and build shapes from components

**NY State Pre-K Foundation for Common Core**

**Communication, Literact** - Describe and compare measurable attributes, Analyze, compare, and sort objects, Identify measurable attributes of objects, such as length, and weight. Describe them using correct vocabulary, Create and build shapes from components

## ECERS-R

**Language-Reasoning:** Books and pictures, Encouraging children to communicate Using language to develop reasoning skills

**Activities:** Fine Motor, Art, Math/Numbers | **Program Structure:** Group time

## Materials and Supplies: Time needed: 35-45 minutes

Boxes or other placeholders for the structures made in the previous two classes (pictures will help for this age group to remember without abstracting), something to represent and remind class of the creature's size, paper, pencils/crayons, Brackitz planks and Brackitz planks and connectors (all types)

## Setup and preparation:

Have trays, boxes, or plates ready with the same number of planks and connectors for each group of two or three students; help students work in roughly the same groups as in the previous lesson.

## Background knowledge:

Prior to this lesson, the only background knowledge students need is to be able to pick things up and grasp them.



# Lesson 5: MOVING AROUND



40 minutes



## Whole Class

10 minutes



"You made our gingerbread friend all kinds of things to make her/his life better. (List them here: furniture, gyms, playgrounds, gardens, etc.) Now let's consider how to help him/her get from place to place. How do we get from place to place? Let's list the ways." Brainstorm ways that we travel and connect places and locations to one another, list on class chart. " Let's use these boxes to take the place of your structures. Then we can recycle the Brackitz pieces and use them to make connectors between the structures. Let's build a way for our friend to get from place to place and stay protected from big people feet. "

## Instructor Notes and Tips

Ask students how they got to school - what was used (cars/bus and roads) to get things started. Walking will come up as a popular option - use this to remind students on the scale difference by asking, "if you lived with people 10 times your size would you want to walk on the same path as them?"

Ideas if you and your class are struggling are: Designated paths, sidewalks, boardwalks, roads, bridges, tunnels.

## Group Exploration

10 minutes



"Ok, I've laid out pictures of all the things we made. Now we're going to practice going around to the different places gingerbread may want to go. What Path would we use to go from \_\_\_ (e.g. couch) to \_\_\_ (e.g. playground)?" As you help the class define paths, try to define mostly straight lines. Put colored tape down to mark this path. "Great! Now we know where the paths should go for our walkways, sidewalks, and roads!"

You can leave paper or tape to mark where paths should go

Help your class getting started by creating a narrative, "If I was gingerbread, after relaxing on the couch with a snack I'd want to go play on the playground! Let's imagine a path for that."

**During this time, assign each group which two structures they will build the "connector" for. You can even do different colors of tape for each path so that you can assign group 1 "red" group 2 "blue" etc.**

## Group Challenge

15 minutes



"Time to build! I've assigned each group to build one 'connector.' (Repeat which group is connecting what for clarity). Work as a group to build a very simple path. Then count, how many Brackitz planks did you use?"

As students begin building, watch to make sure groups are able to share pieces and ideas functionally.



# Lesson 5: MOVING AROUND



## Reflection



5 minutes



Do a “silent sharing walk.” Groups can circulate around to look at all the different pathways and “connectors” that were built, but not talk or ask questions. Then hold a design debrief discussion on “what makes our pathways stable and safe for our tiny friend?”

Some good questions to ask are, “Did you see something another group built that you really liked?”

“What would be the best way to test which builds are most useful and safe?”

## CHALLENGE ADVANCED STUDENTS

**In the group exploration, ask:** “What kind of pathway, roadway, tunnel or bridge will be the safest and best to use? Why?” Discuss the different uses of boardwalks and walkways, sidewalks, paths, and roads.

**In the challenge:** consider having groups stop in the middle of their build and do “partial presentations.” Set up an expectation that their work won’t be done but that this is a chance to say “Here is what we’re making; when it’s done the way it should work is \_\_\_\_\_. One problem we are still trying to solve is \_\_\_\_\_.” This gives groups a chance to give and receive feedback before their design work is complete.

## SIMPLIFY FOR YOUNGER GROUPS

**In discussion:** Mention the idea of going around the bases and back to “home” and decide where that is.

**In group exploration:** Build paths so that go in an “around the bases” manner.

**In the challenge:** Encourage groups to keep it very simple, building basics first before adding “extras.”