

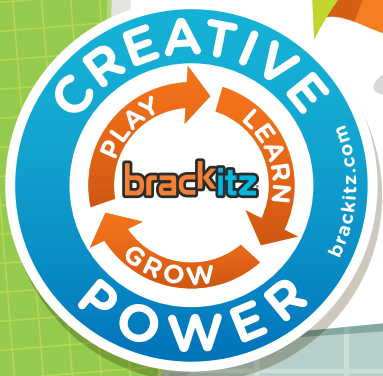
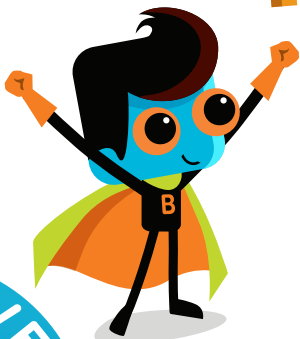
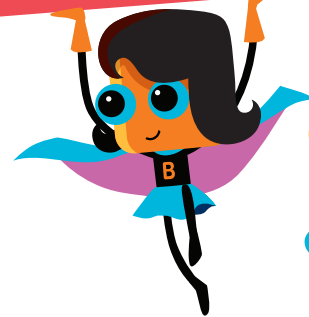
brackitz®

U1 L4
V2.0

LESSONS

CREATURE

COMFORTS





★ Lesson 4: CREATURE COMFORTS ★



Students continue their play-based introduction to solving problems by designing and building for the Gingerbread character's size. Students continue to consider dimensions as they design health, safety, comfort, and recreation items for a creature that's much smaller than them.

Objectives:



Students will create a Brackitz design that considers the gingerbread's small size and continue getting familiar with the Brackitz system, and build their collaboration skills. "I can design in 2D and then build in 3D." and "I can consider what a user needs."

Vocabulary used in this activity: Benefit, help, dimensions, detail, design, design plan

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:** 35-40 minutes

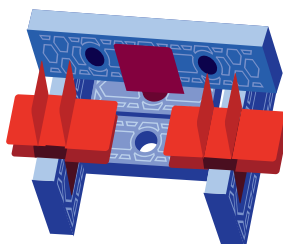
3-D gingerbread character to remind students of the size and dimensions, paper, pencils or crayons, Brackitz planks and connectors (all types).

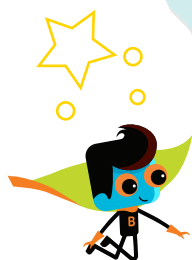
Setup and preparation:

Have trays, boxes, or plates ready with the same number of planks and connectors for each group of 2-3; help students cooperatively form groups of 2-3 to work together.

Background knowledge:

Prior to this lesson, the only background knowledge students need is to be able to pick things up and grasp them. A reminder of the agreed upon dimensions of the creature will help students build with the creature in mind.





Lesson 4: CREATURE COMFORTS



40 minutes

Whole Class

10 minutes



"We've spent some good time with our gingerbread friend - we know gingerbread's size in 2D and 3D, we built a place for our creature to stay, and built a tool to try and let them out safely. What else does our friend need? What would make our small gingerbread friend feel happy and safe and WANT to come out and play?" Have the whole group think of ideas about what their small friend needs to be safe and happy. Record all ideas on a white board or class chart - write words but you can sketch representations of their ideas too. Once you have ideas ask, "will we make these items big enough for us or will we make them a different size?" (smaller!)

Instructor Notes and Tips

To help get the brainstorm started you could ask students what makes them safe and happy every day: place to live and sleep, toys, going to school, etc. Then ask them if their creature needs the same things:

Great ideas if you and your class are struggling are:

- creature playground
- place to plant a garden
- toys and toy room
- tiny furniture (places to eat, sleep, and relax).

Group Exploration

10 minutes



Assign each group **one idea**, so each group is working on something different. Ask them to design their idea for the gingerbread's small size - offer a reminder of the size if needed. "Your job is to work as a group to use the Brackitz planks and connectors to build this idea. Make a group drawing of the design. Your drawing should help guide what you build and be a design plan so that someone else could build what you're thinking."

Help small groups get started by reminding them how this idea will help or benefit the creature. Will it make her/him more happy, safe, comfortable, healthy?

You can use the cutout or 3D gingerbread to help them remember the size they are designing for.

Remind them that a drawing should have enough detail that, "someone who wasn't in class with us could find it and use it to make something like what you planned."

Group Challenge

15 minutes



"Now it's time to go from 2 dimensional drawings into a 3-D building! Build what your group planned, using Brackitz planks and connectors. Remember, we're building for our gingerbread that's this small (indicate all three dimensions or put on board)."

As students begin building, watch to make sure groups are able to share pieces and ideas functionally. Circulate to groups to help groups keep scale and dimensions in mind as they move from a 2D plan to 3D build.



Lesson 4: CREATURE COMFORTS



Reflection



5 minutes



Ask each group to silently respond (hands up, touch heads if . . .) to these questions:

Do your design(s)...

- fit gingerbread's size?
- need to be bigger?
- need to be smaller?
- help gingerbread be happier?
- help gingerbread be safer?
- help gingerbread be healthier?

Help students preserve their structures for the next lesson - pictures, or videos where students do a show and tell are great tools to preserve their ideas.

Help students think about their answers to your questions. For instance, if they made a couch, they should answer yes/raise hand to making gingerbread happier but maybe don't need to answer yes to making gingerbread safer.

CHALLENGE ADVANCED STUDENTS

In discussion: ask students to rank the importance of their brainstormed ideas. Use these rankings to pick the two to four builds to focus on.

In the exploration: ask students to draw their design and then guess or count what pieces they will need to make it work before building.

SIMPLIFY FOR YOUNGER GROUPS

In discussion: bring this back to things that make them happy and comfortable, but ones that can be made much smaller. Disney Word makes them happy but it would be hard to make a tiny version!

In the challenge/build: do this with smaller groups and have them focus on simpler designs like furniture or simple toys.

Lesson 4: CREATURE COMFORTS

Student Worksheet

What are somethings you need to be safe and happy? (Draw at least 2 things)



What changes would you make if you had time? (Write down at least one thing)

1. _____
2. _____
3. _____



Lesson 4: CREATURE COMFORTS



What did you make to help our gingerbread friend?

Draw your design here.

What changes would you make if you had time? (Write down at least one thing)

1. _____
2. _____
3. _____