

Kindergarten Week 3: Innovative Designs

Estimated Time	Total Time: approximately 60-75 minutes/day Work at the pace that works best for you and your child.
Grade Level Standard(s)	All activities are aligned to Common Core State Standards for Kindergarten. To learn more about these standards, please visit the following: <ul style="list-style-type: none"> • Common Core State Standards for Kindergarten Parent Roadmap: English Language Arts - https://www.cgcs.org/cms/lib/DC00001581/Centricity/Domain/36/Updated%20ParentGuide ELA K.pdf • Mathematics - https://www.cgcs.org/cms/lib/DC00001581/Centricity/Domain/36/ParentGuide Math k.pdf
Caregiver Support Option	Participate with your child in the suggested activities below to facilitate shared learning.
Materials Needed	Paper, writing utensils (crayons, markers, pencils), scissors, glue or tape, inflated balloon or ball, deck of cards, newspaper, Suggested Books: <i>Roberto, The Insect Architect</i> by Nina Laden <i>Iggly Peck, Architect</i> by Andrea Beaty <i>Home</i> by Carson Ellis <i>Construyendo</i> by Sally Sutton Links to additional digital resources available on the last page of the packet.
Question to Explore	<ul style="list-style-type: none"> • What do I currently like about the things I use on a daily basis? • Can I make improvements to anything? • How can I contribute to making things easier for people in the future?
Student Directions	Each activity below has directions for you to follow.



If you would like to provide feedback on this packet, please scan the QR code.



Day 1: Easy Tool

Introduce the Topic: Explain to your child that objects like tools and machines were created to make a specific task easier. Begin by asking what tasks do the following tools help simplify i.e., screwdriver, hammer, ladder, drill, etc.

Learn & Discuss: Allow your child to think about tasks they currently complete at home and how it could be done easier. Ask them to make a list of their chores to assist them in thinking through these ideas.

Literacy Activity - Chores Made Easy: After having your child make a list of their current chores, provide time for them to choose one and decide what kind of tool they would need to make this job easier. For example, a vacuum cleaner would make sweeping faster and more precise. Ask them to invent a tool that doesn't already exist (if possible) to help with their identified chore. They can use the following space to plan and draw out their invention.

My Tool

(Illustration)

Name of Tool:	What chore it helps with:	How it works:

Music/Movement Activity - Popcorn Jumps: Be sure to give your child enough room for this exercise. Popcorn jumping is just jumping but where you start and end in a squatting position. Your child will release a lot of energy in a short amount of time. Set a timer for 2-5 minutes and say “pop” out loud with each jump or try jumping to this song <https://www.youtube.com/watch?v=elu04iszNLI>.

Math Activity - Measuring Perimeter: Gather household items that you may have multiple identical pieces of (e.g paper clips, small blocks, hershey kisses, etc.) to use for measuring. Allow your child to measure the perimeter of several different objects. The perimeter is the distance around the outside of an object. Ask your child to find the perimeter by adding all the sides together. Some household items to measure may include a book, jar, box of cake mix, candle, bottle of water, etc.

Extension Activity: Challenge your child to compare the perimeters of two or more objects they measured today. They can identify which object had a larger/smaller perimeter, if any results were surprising and what other materials they could use to measure larger objects.

Social Emotional Activity - Reflection: Ask your child to reflect on the activities they completed today. They can provide their reflection in a journal or in a discussion with a partner. Have them answer which activity did they enjoy the most? Why? If they had to do any activity again, what would they change?

Day 2: Transportation

Introduce the Topic: Explain to your child that they will be discussing forms of transportation. Begin by asking the following questions.

- What kinds of transportation do you already know about?
- What kind do we use most often?
- Which do you prefer?
- What are some places you can visit with the different forms of transportation?

Learn & Discuss: Allow your child time to think about how transportation might differ in the future. Ask them what they are most interested in or look forward to in regards to transportation.

Literacy Activity - Futuristic Vehicle: Gather the classifieds section of a newspaper or use a search engine like Google and assist your child in reading aloud the names of some of the vehicles. Allow them to think about their ideal car that they'd like once they are old enough to drive. What cool features would they like to include? Give them the following template to draw and describe their ideal vehicle of the future.







My Futuristic Vehicle

(Illustration)

Name of Vehicle:	Cool Features:	How it works:

Music/Movement Activity - Keep it Up: Find an inflated balloon or ball for this activity. The object is to keep a balloon from hitting the ground without holding onto it. You can join in with your child or allow them to complete this using a stopwatch. You can also challenge your child by asking them to keep track of how long they can keep the object in the air and trying to beat their previous time on each new attempt.

Math Activity - Transportation Graph: Ask your child to observe the kinds of transportation vehicles that pass their home throughout the day. Use the following transportation graph to record the observations.

10						
9						
8						
7						
6						
5						
4						
3						
2						
1						
	cars 	buses 	trucks 	vans 	motorcycles 	bicycles 

Extension Activity: Challenge your child to compare and contrast their ideal vehicle to those that exist today. Allow them to describe the differences and why their vehicle would be better in the future.

Day 3: In My Neighborhood

Introduce the Topic: Explain to your child that they will be thinking about the neighborhood they live in. Begin by asking the following questions.

- How would you describe the outside look of our house?
- Are they the same or different from our neighbors? How so?
- Are there any changes you would like to make in our neighborhood? Why/why not?

Learn & Discuss: Tell your child that a neighborhood is a smaller community within a city or town. Discuss the name of your neighborhood and what they enjoy most about it.

Literacy Activity - New Home: Grab a journal or blank piece of paper and take a walk around your neighborhood. Allow your child to write down any observations they notice about the homes you walk past. Advise them to take note of as many physical features as they can such as size, shape and color. Ask your child to design a new home that would be perfect for them and include as many details as possible. They can use the template below as a guide.

Updated Home

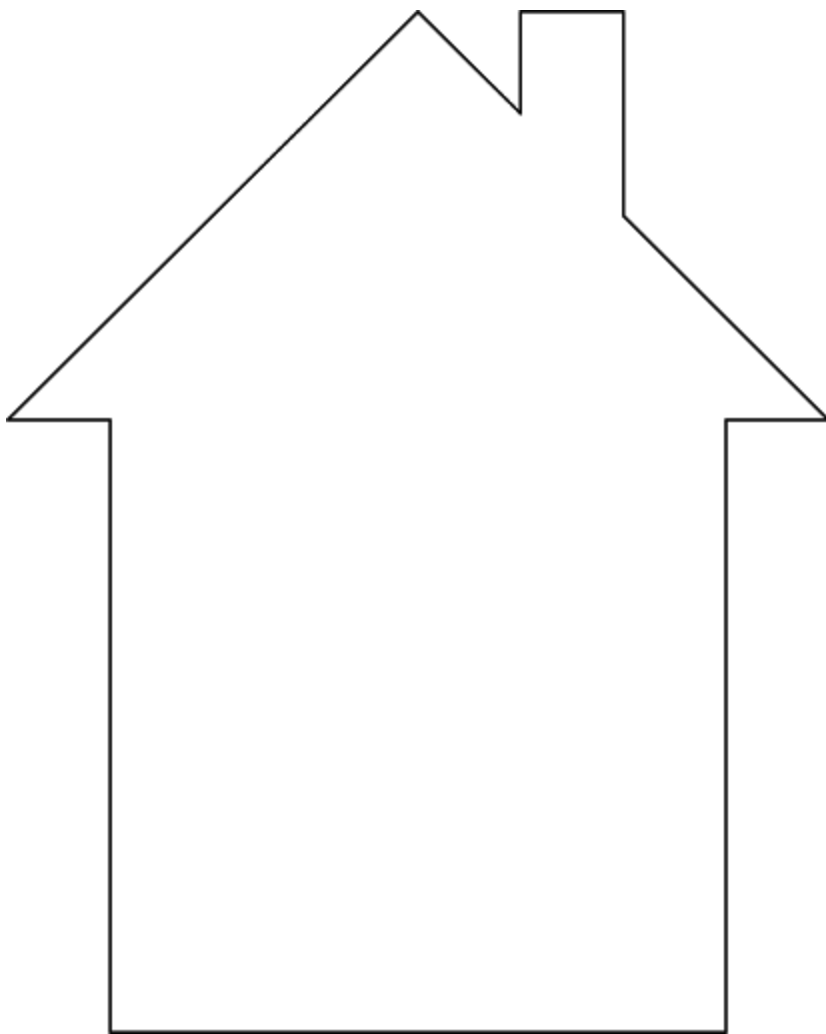
(Illustration)

Name of this kind of home:

How it differs from my current home:

Music/Movement Activity - Exercise Break: Quickly get your child's blood flowing in their brain with simple exercises. Set a timer for a couple of minutes and allow space for exercise. Jumping jacks, wall push-ups, and running in place are easy ones to start with.

Math Activity - Number House: Ask your child to count the following objects in the house using the template below.



Number of rooms: _____

Number of stairs: _____

Number of windows: _____

Number of doors: _____

Number of sinks: _____

Number of beds: _____

Number of people: _____

Extension Activity: Challenge your child to collect a more detailed count of the number of items inside the house. Ask the following questions.

1. How many windows do we use often?
2. How many doors are open? Closed?
3. How many times do we use the stairs?
4. How many rooms do we use each day?

Social and Emotional Learning Activity - Reflection: Ask your child to reflect on the activities they completed today. They can provide their reflection in a journal or in a discussion with a partner. Have them answer which activity did they enjoy the most? Why? If they had to do any activity again, what would they change?

Day 4: Board Game

Introduce the Topic: Tell your child that they will be exploring board games today. Ask the following questions.

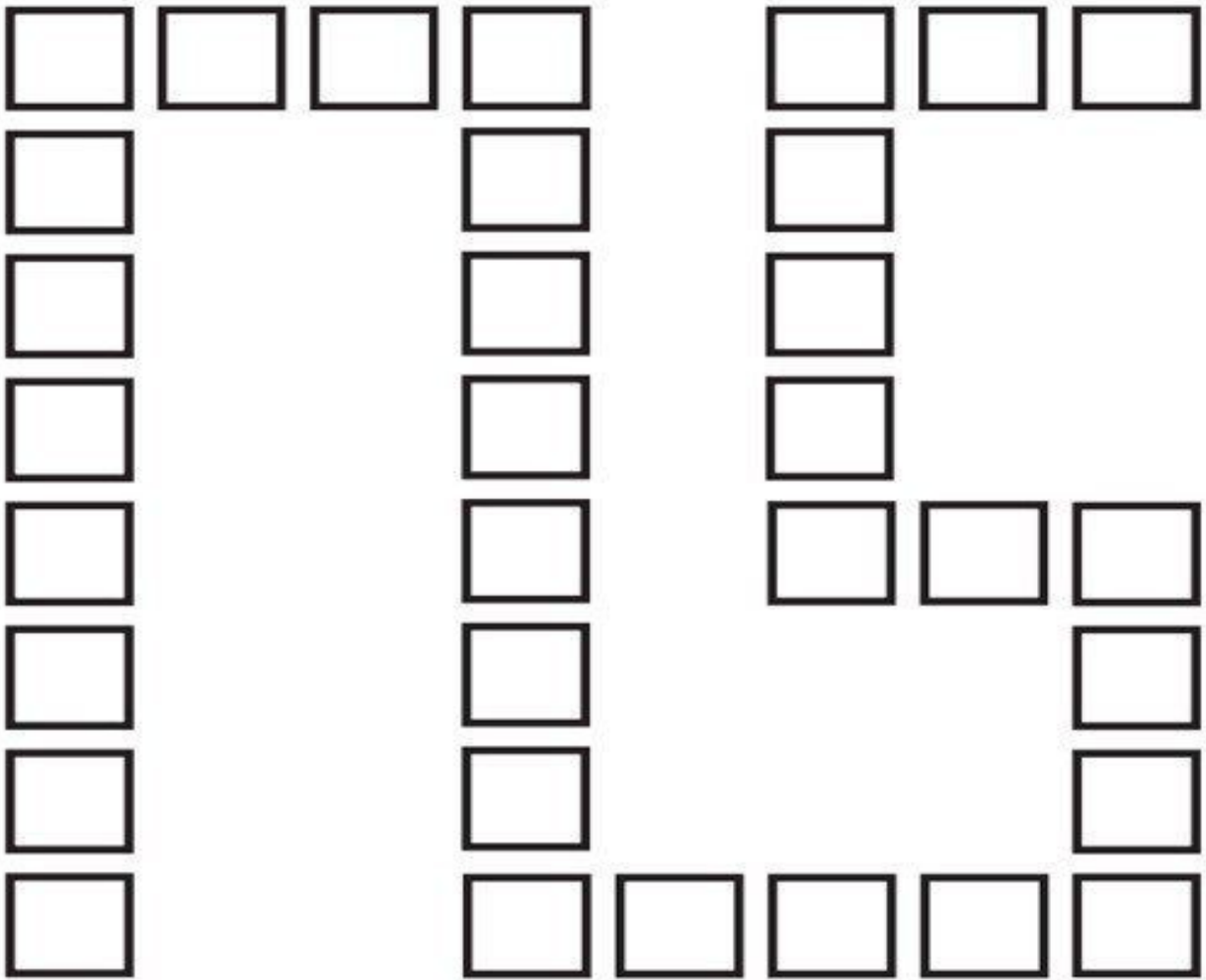
- What board games have you played before?

- Which are your favorite? Why?
- What do most board games have in common?

Learn & Discuss: Explain to your child that board games can be used for many different reasons including bonding with others, strengthening reading and math skills and having fun. Allow them an opportunity to discuss what they like and dislike about board games.

Literacy Activity - Board Game: Ask your child to design their own board game. Make sure they include a visual representation of the game, and rules for how to play. They can use the following template or blank paper for their plan.

Game Name	Number of Players	How to Play	Additional Things to Know







Music/Movement Activity - Challenge Your Body: Ask your child to do something physically difficult such as some of the yoga poses in the chart below. Some examples include:

- standing on one foot with arms extended
- grab your nose with your left hand, and grab your left earlobe with your right hand, and then quickly switch so that your right hand is on your nose and your left hand is grabbing your right earlobe.



Math Activity - Number Card Addition: Gather some playing cards (or numbers on paper/index cards) and have your child pick two cards and write in the numbers below. Allow time for them to calculate the sum.

	+		=				+		=	
	+		=				+		=	
	+		=				+		=	
	+		=				+		=	

Extension Activity: Challenge your child to complete the same card activity using subtraction. They should write the largest of the two numbers first and subtract the smallest number. You can set a timer to determine how quickly they can complete the board correctly.

Social Emotional Learning Activity - Reflection: Ask your child to reflect on the activities they completed today. They can provide their reflection in a journal or in a discussion with a partner. Have them answer which activity did they enjoy the most? Why? If they had to do any activity again, what would they change?

Day 5: Putting it All Together

Introduce the Topic: Tell your child that they will be reflecting on the innovative designs they completed the last few days. Begin by asking the following questions.

- Which day was most memorable for you? Why?
- Would you do any activity again?
- Do you think any of your designs are realistic? Why or why not?

Learn & Discuss: Explain to your child reflecting on work they've done allows them to think about their own progress and strengthen their thinking skills. The reflection they will complete today will help them apply problem solving techniques that they can use in the future.

Literacy Activity - Writing Out My Thoughts: Now that your child has created and redesigned several things throughout the past several days, this is an opportunity for them to fully reflect on their experiences. Ask them to choose one activity and write about it below. Tell them to include as many details as possible and make sure they have correct capitalization, space between their words and punctuation marks.

My favorite activity from the week was _____

This activity made me feel _____ because _____

Here are the steps I took to complete this activity. _____

I could make this plan a reality in the future by _____

Music/Movement Activity - Skip Jumping: Have your child skip count while jumping with each count. They should count by 1s, 2s, 3s, 5s, 10s. They could also practice spelling or sight words by jumping each letter of the given word.

Math Activity - Counting Collections: Ask your child to think about items that they have in multiples. Tell them to start a collection of objects they like. They can keep track of the amount of objects they started with at the beginning of the month and update the number by the end. Some examples of collections may include the following.

- buttons
- stuffed animals
- coins
- games
- cards
- stickers
- magnets

Extension Activity: Tell your child to start more than one collection and record how often they add to each collection.

Additional Digital Resources: Check out these additional resources with your child to extend your child's exploration of innovative designs! As you work through these resources, continue to ask your child open-ended questions, such as:

- What does this activity make you think about?
 - How can we solve this problem?
 - Why is this important?
 - What other ideas do you have?
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Read Alouds

How Do People Design Things That Move?

<https://www.youtube.com/watch?v=iOKHVqwnTXk>

If I Built a House

<https://www.youtube.com/watch?v=XYfB2MS-ouo>

PebbleGo (articles, activities, and video) Username = cps Password = cps

Construction Workers

<https://site.pebblego.com/modules/5/categories/5007/articles/5189>

PBS Learning Media

David and Kayleen Design a Glider (video)

<https://illinois.pbslearningmedia.org/resource/d173b153-6103-40cb-9e63-9ca0d98aed6a/david-and-kayleen-design-a-glider/>

Tube Engineering (video)

<https://illinois.pbslearningmedia.org/resource/sesame-tube-engineering/tube-engineering-sesame-street/>

How to Build a Rocket and Think Like an Engineer (video)

<https://illinois.pbslearningmedia.org/resource/41538bdc-c095-48d2-b87a-a65f762d0fd4/how-to-build-a-rocket-and-think-like-an-engineer/support-materials/>

Design Your Own Plant Superhero (activity)

<https://illinois.pbslearningmedia.org/resource/cyb11.stem.plantsuperhero/design-your-own-plant-superhero/>

Daring Design Challenge (activity)

<https://illinois.pbslearningmedia.org/resource/daring-design-challenge/the-cat-in-the-hat-knows-a-lot-about-that/>

Math Learning Center - Math at Home

<https://mathathome.mathlearningcenter.org/kindergarten>

Kindergarten Activities of the Day

<https://mathathome.mathlearningcenter.org/activities-of-the-day>

Kindergarten Family Games

<https://sites.google.com/mathlearningcenter.org/math-at-home/family-games>

DREME Network At Home Early Math Learning Kit

https://dreme.stanford.edu/sites/g/files/sbiybj9961/f/dreme_at-home_early_math_learning_kit_for_families.pdf

Wide Open School

<https://wideopenschool.org>

Wide Open School is a free collection of resources for all content areas as well as emotional well-being, get moving, English Language learners, special needs, family services, and more!