Unit Ten: Transformation

Interdisciplinary Unit of Study NYC DOE

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I. Unit Snapshot

Unit Topic:

Transformation

Essential Question

What is transformation and how do things change?

Focus Questions

- What changes around me?
- How can objects change?
- What kinds of change happen in nature?
- How will I continue to change and grow?

Student Outcomes

Enduring understandings that the student should have by the end of the unit:

- Many things around me change.
- There are many ways objects can change.
- There are many kinds of changes in nature.
- Some things about me change and some things stay the same.

Connected Academic Vocabulary

This list should be adapted to best fit the needs of individual programs and classrooms.



Focus Standards

From the New York State Prekindergarten Learning Standards (NYSPLS)

Domain 1: Approaches to Learning

PK.AL.1 Actively engages in play as a means of exploration and learning

Domain 2: Physical Development and Health

PK.PDH.7. Demonstrates personal care and hygiene skills

PK.PDH.8. Demonstrates awareness and understanding of healthy habits

Domain 3: Social and Emotional Development

PK.SEL.7. Adapts to change

Domain 4: Communication, Language and Literacy

Reading PK.ELAL.6. [PKR.2] Retells stories or share information from a text

PK.ELAL.12. [PKR.9] Makes connections between self, text, and the world (e.g., what is familiar, what does an event/picture/character make them think of, what do they remember)

Language PK.ELAL.21. [PKSL.3] Identifies the speaker

PK.ELAL.25. [PKL.1] Demonstrates command of the conventions of academic English grammar and usage when writing or speaking.

PK.ELAL.27. [PKL.4] Explores and uses new vocabulary in child-centered, authentic, play-based experiences

Domain 5: Cognition and Knowledge of the World

Mathematics PK.MATH.1. [NY-PK.CC.1.] Counts to 20

PK.MATH.4b. [NY-PK.CC.4b] Given a number from 1-10, counts out that many objects

PK.MATH.8. [NY-PK.OA.1.] Explores addition and subtraction by using objects, fingers, and responding to real world situations (e.g., if we have 3 apples and add two more, how many apples do we have all together?)



*PK.MATH.*15. [NY-*PK.G.*4.] Creates and builds shapes from components (e.g., sticks, blocks, clay)

Science

PK.SCI.3. [P-PS4-1.] Plans and conducts investigations to provide evidence that sound is produced by vibrating materials

PK.SCI.5. [P-LS1-2.] Participates in investigations to determine how familiar plants and/or animals use their external parts to help them survive in the environment

PK.SCI.7. [P-ESS1-1.] Observes and describes the apparent motions of the sun, moon, and stars to recognize predictable patterns

PK.SCI.6. [P-LS₃-1.] Describes how some young plants and animals are similar to, but not exactly like, their parents.

Social Studies

PK.SOC.6. Develops an understanding of how people and things change over time and how to relate past events to their present and future activities

The Arts PK.ARTS.2. [DA:Pr4-6.PK] Performs Dance

PK.ARTS.4. [DA:Cn10-11.PK] Connects to Dance

PK.ARTS.5. [MA:Cr1-3.PK] Creates Media Arts

PK.ARTS.6. [MA:Cr4-6.PK] Produces Media Arts

PK.ARTS.11. [MU:Cn10-11.PK] Connects to Music

PK.ARTS.7. [MA:Re7-9.PK] Responds and Connects to Media Arts

PK.ARTS.4. [DA:Cn10-11.PK] Connects to Dance



II. Introduction

Welcome to Unit 10: Transformation, Pre-K for All's tenth and last Interdisciplinary Unit of Study. In Unit 10: Transformation, children conclude the year by investigating how things change over time. This unit, like all Pre-K for All units, provides opportunities for children to observe objects and phenomena in their environment with increasing complexity. This final pre-K unit is an opportunity to apply knowledge and skills children learned in previous units, and to help children prepare for upcoming transitions.

To transform means to make a thorough or dramatic change in form, appearance or character. To learn this concept, children will begin the unit by considering the question "What changes around me?" Activities in week one help children express what they already know and extend their learning through play, literature and discussion. Children might notice that trees change with the seasons, or a neighborhood change such as the building of a new store. Children will begin to explore how they are agents of change in a variety of ways, including activities where they can change the shape of an object or objects. Children will also explore how their feelings change and how their actions and words can impact others' feelings. These discussions and activities will help children develop concepts and skills related to self-awareness, self-regulation and relationship with others (skills outlined in Domain 3 of the NYSPLS) that will be key as they transition into Kindergarten. In week two, there are opportunities to investigate how objects change and why. Building on skills they learned in Unit 7: Water,

children will explore changes in state (e.g. water to ice) as well as repurposing, reusing and recycling materials.

This final pre-K unit is an opportunity to apply knowledge and skills children learned in previous units, and to help children prepare for upcoming transitions.

In week three, children will build on learning from Units 7 through 9 by investigating changes in nature. There are opportunities to discuss and learn about *metamorphosis* through studying the life cycle of insects such as butterflies as well as to notice changes in weather and seasons. Neighborhoods throughout New York City provide opportunities to observe change, either in the area surrounding your program or in photographs. The activities in this week (and throughout the unit) provide opportunities for embedded literacy development such as learning new vocabulary, storytelling, and learning about the relationship between letters and their sounds.

Within the topic of transformation, as with all units, there is a reflective component. In week four, children will have the opportunity to reflect on their own growth and consider how they will continue to change. This builds on learning they have done

throughout the year to develop a strong selfconcept (PK.SEL.2. Recognizes self as an individual having unique abilities, characteristics, feelings and *interests*) by reflecting on things about them that have changed as well as things about them that do not change. When discussing change and transformation, there is also an emotional component. Children may bring up or be thinking about changes in their life that may be sensitive, complex or challenging such as moving homes or changes in their family structure. Children may also have different feelings about preparing to leave the pre-K classroom and entering Kindergarten. Children's play and behavior may reflect their feelings about upcoming transitions. Look for opportunities to discuss their feelings and talk about what might be similar or different about Kindergarten. Think about what transition activities might be appropriate for your children, for example visiting a nearby Kindergarten if that is available to you or providing pictures of the schools that children will be attending. You may have been collecting children's work throughout the year in a portfolio. To highlight the reflective and emotional components of this last unit, you may choose to use this work in a culminating activity such as a Transformation Portfolio or to create a Goodbye Book for each child.

Parents, siblings, and extended family members can play an active role in helping their pre-K child prepare for the transition to Kindergarten. Families can support their pre-K child by asking open-ended questions about what they think Kindergarten will



be like and engaging their child in an active reflection of memories from the beginning of their pre-K experience. Families can provide positive examples of the way in which they have observed their child develop and transform over the year, and revisit coping strategies the child may have learned to manage different feelings and situations. Families can facilitate this conversation by drawing pictures or reading books related to the topic of transitions in school or feelings about change. This builds on learning they have done throughout the year to develop their capacity for adaptability (PK.SEL.7. Adapts to change) by using multiple strategies to cope with change, such as seeking social support from an adult or peer or engaging in different activities that are comforting.

As the end of the year approaches, it is vital that children continue to have the opportunity to explore learning through Centers. Throughout Section IV: Ideas for Learning Centers, you will notice activities that were originally introduced in previous units. In this Unit, these activities are revisited and an element of change is added as a means to build on prior experiences and further explore the ideas of change and transformation. These activities begin

with "Reintroduce." The symbol is used to identify the new portion of the activity. If you have not introduced these activities previously simply introduce them now as a new activity. Throughout this section there are also opportunities for children to problem-solve around "challenges," either individually or in small groups. Challenges, noted

with the symbol , require children to transform or change objects in the classroom to solve a

problem, such as building a bridge over a river. Challenges allow children to apply and integrate the critical thinking, inquiry, social and language skills developed throughout the year that will play an important role in their continued success. You may decide to focus on transformation challenges as a culminating activity, and invite staff and family members into the classroom to learn about how children solved these challenges.



III. Unit Framework

Essential Question

This is a child-friendly question that connects the knowledge and skills that children should develop throughout the unit.

Focus Questions

These represent the major inquiries of the unit. They build over time and require children to make connections across all content areas. Each focus question is designed to take about one week to explore.

These are key components of each Pre-K for All Unit of Study.

Foundational Learning Experiences

These are experiences (e.g., whole group, small group lessons, field trips, observations, center activities) for each subtopic that provide ample opportunities to deepen children's understanding of the Focus Questions.

Foundational Texts

PK.ELAL.9 [*PKR.5*] Interacts with a variety of genres (e.g., storybooks, poems, songs)

These are a combination of literary and informational texts that can be read throughout the unit. See Section XI for text-based critical thinking questions to support the read aloud experience.

Engaging, informative and literary texts provide opportunities for exploring content, expressing ideas using one's imagination and critical thinking that are enhanced through multiple readings of the same book. Reading books multiple times helps all children build a deeper understanding of content, make meaningful connections between content and other concepts or experiences and builds their confidence as learners and as future readers.

Key Vocabulary

These are academic vocabulary words that help children understand the unit focus questions and access complex texts. These words can be supplemented by vocabulary in read alouds.

Family and Community Engagement

These are ideas for inviting families to share their experience and knowledge with the class, or for extending learning outside of the classroom. They are aligned to the <u>NYC DOE Division of Early</u> <u>Childhood Education Early Childhood Framework</u> for Quality (EFQ).

See Section IX: Supporting Resources for more information about Family Engagement Practices Culminating Celebration

This is an opportunity to reflect on the unit with the children, as well as to note and celebrate the growth and learning that has occurred.



Unit Ten: Transformation

Essential Question: What is transformation and how do things change?

| | Week One | Week Two | Week Three | Week Four |
|--------------------------------------|---|--|---|---|
| Focus Questions | What changes around me? | How can objects change? | What kinds of changes happen in nature? | How will I continue to change and grow? |
| Foundational Learning Experiences | Foundational Text Read Aloud Read the foundational text, <i>Maybe Something Beautiful</i> by F. Isabel Campoy aloud to the class, pausing to ask the inquiry and critical thinking questions from Section IX. <i>PK.SEL.2. Recognizes self as an</i> <i>individual having unique</i> <i>abilities, characteristics, feelings</i> <i>and interests</i> See page 50 for lesson plan. | Centers Paper Making: Invite children to work together in the sensory table (or in an additional bin or container), to create a new piece of paper from pieces of previously used paper and paper scraps. Fill the table or container with shredded or ripped paper, add water and invite the children to mash the paper and water to create a pulp. Follow the directions in the lesson plan to remove the pulp from the table and create individual sheets of paper. PK.SCI.10. [K-2-ETS1-1.] Asks questions, makes observations, and gathers information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool See page 54 for lesson plan. | Large Group Metamorphosis Dance: After reading a book about metamorphosis aloud to the class, work with the children to isolate each stage of metamorphosis, generate a list of words relevant to each, and create a representational dance. Children can take turns as performers and audience members, and reflect together on the dance performances. <i>PK.ARTS.4. [DA:Cn10-11.PK]</i> <i>Connects to Dance</i> See page 59 for lesson plan. | Small Group Now and Later: Invite children to reflect on the things they can do now and things they would like to do in the future. Fold a piece of paper in half, title one side "Now" and the other "Later." Talk with children about the things they can do now and things they are looking forward to doing when they are older. Write children's responses on the paper or invite them to do their own writing; help them pay special attention to the sounds they hear in the words. <i>PK.SOC.6. Develops an understanding of how people and things change over time and how to relate past events to their present and future activities</i> See page 63 for lesson plan. |



| | Week One | Week Two | Week Three | Week Four |
|--|---|---|---|---|
| Focus Questions | What changes around me? | How can objects change? | What kinds of changes happen in nature? | How will I continue to change and grow? |
| Foundational Texts | <i>Maybe Something Beautiful</i> by F. Isabel Campoy | More-igami by Dori Kleber | <i>Little Tree</i> by Loren Long | <i>I'm Big Now!</i> by Anthea Simmons |
| Key Vocabulary | appearance, change, date, feelings, larger, longer, narrower, objects, state, shorter, seasons, transform, transition, weather | after, bigger, camouflage, combine, continue, darker, develop, disguise, evaporate, feet, fold, freeze, grow, harder, heavier, inches, less, lighter, magnify, more, newer, off, older, purpose, recycle, repurpose, reuse, shrink, smaller, softer, stages | birth, butterfly, caterpillar, chrysalis, cocoon, cycle, drop, egg, entomologist, larva, life cycle metamorphosis, pupa | adult, birthday, experience, independent, kindergarten, learn, parent, responsible, taller, time |
| Family and Community Engagement EFQ 4: High quality programs promote families' role as primary caregivers, teachers, and advocates | Ask families to save and bring in old newspapers, magazines and/or pieces of paper for the class to use to make paper the following week. They may want to use this as an opportunity to talk with their child about how to reuse and recycle objects. | Invite families to come in and bake or cook in the classroom. Families can share a child friendly recipe, make it with the children, and enjoy it in the classroom together. If families are not able to come into the classroom, encourage them to do a simple cooking activity at home and discuss how foods change when they make snacks or meals (e.g. adding milk to cereal, cooking carrots, or making pasta or rice). Be sure to follow all safety rules and keep in mind that a visiting adult should never be left | Encourage families to visit a park on their way home from pre-K or look at trees in their neighborhood. How have the trees changed between winter and spring? If desired, they can draw a picture of trees in the winter and trees in the spring to compare and contrast. | Encourage families to visit or walk past the school or classroom their child will be attending in the fall and discuss how their current program/classroom and their new school/classroom are similar and different. |



| | Week One | Week Two | Week Three | Week Four | |
|----------------------------|---|------------------------------------|--|--|--|
| Focus Questions | What changes around me? | How can objects change? | What kinds of changes happen in nature? | How will I continue to change and grow? | |
| | | unsupervised with the children | l. | | |
| Culminating Celebration | Transformation Portfolio: At the beginning of this unit share with children that they will have the opportunity to create their own portfolio or collection of work about transformation during this study. Provide, or invite them to help create, a place to store their transformation-related work. Encourage children to select unit-related work to save in their portfolios. Teachers can also take pictures of children's transformation experiences that might not be able to be stored in a portfolio. At the end of the unit, families can visit the classroom and view the children's work and/or children can take home the Transformation Portfolio to share with their families. | | | | |
| | Transformation Challenge: Create a challenge or challenge(s) for children to solve similar to those included in Section IV: Ideas for Learning Centers. Invite children work together in small groups or as a class to solve them. Encourage children to consider how they are agents of change and can use and transform materials in order to find solutions to challenges. Invite guests into the classroom to view children's solutions or to work with the children to create solutions. | | | | |
| | OR | | | | |
| | | ok. Use the images to create a sho | pictures and/or pieces of work that th ort book and write, or work with the c | , | |



IV. Ideas for Learning Centers

Even at the end of the year, play-based learning and Learning Centers continue to be the optimal modes for children's learning in pre-K, and build toward continued success in Kindergarten and beyond. Learning Centers should be used to advance the unit's essential and focus questions, as well as the enduring understandings, and reflect the unit of study and the needs and interests of your children. As noted in the NYC Pre-K for All <u>Scope and</u> <u>Sequence</u>, as a component of the NYC Pre-K for All Interdisciplinary Units of Study, the Learning Center suggestions below are aligned with NYC DOE Kindergarten Science and Social Studies Scope and Sequences.

The interactions between adults and children offer an opportunity to model, encourage and facilitate the use of language to ask higher order thinking questions as well as to create meaningful entry points into new content. This time of year can be especially important for teaching teams to help children go deeper in their language development, inquiry, problem-solving skills, and concept development during centers. Be persistent and supportive as you ask children questions and follow up on their responses to engage in deeper conversations. It is likely that children's play will have increased in complexity across the year; they may now be ready to make more connections between previous learning and the current unit of study and be ready for additional challenges.

Children better understand concepts when teachers provide opportunities to analyze and solve problems

rather than when they are asked to simply memorize and recite facts. Throughout the ideas below there are activities built around challenges,

marked with the symbol. These activities are intended to help children consider how they can use and transform materials as well as be agents of change. One way to build higher order thinking skills is to create connections to the real world and to the prior experiences of children. Throughout the suggestions below, you will notice activities originally introduced in previous units. These activities build on children's previous experiences but now also include an element of change. These activities begin with "Reintroduce." The original activity description is listed and is followed by a paragraph explaining how an element of transformation has been added to the activity. The

symbol is used to identify the new portion of the activity. If you have not introduced these activities previously, simply introduce them to the children as a new activity.

The following suggestions supplement the standard materials you have in each center, such as blocks in the Blocks/Construction Area, assorted dress-up materials in Dramatic Play, paper and a variety of writing utensils in the Writing Center, etc. As you plan your learning centers, also consider how you will provide multiple entry points into the materials for all the children in your classroom. The suggested materials and activities are intended to be relatable and fun! This is not an exhaustive list of materials and can be supplemented by other materials relevant to the unit and your classroom.

While the materials you select for centers are extremely important, learning is made richer through the interactions adults and children have during center time. Center time provides an opportunity for staff to engage children in conversation and rich discussion around their interests, strengthening the children's positive selfconcept and self-confidence. During center time, teaching staff should intentionally model language, use questioning techniques to promote higher-order thinking skills, actively encourage children's perspectives, increase children's focus on the task at hand, read informally to children, and assess children's learning. When teaching staff interact with children in centers they can model language through initiating, joining and extending conversations, using self and parallel talk and asking open-ended questions that deepen engagement and inquiry while developing problem solving and critical thinking skills.

Play is an important vehicle for developing a variety of skills outlined in the NYSPLS and is woven into the EFQ. Rather than detracting from academic learning, purposeful play supports the abilities that underlie such learning. When children have a sufficient amount of time to play and can access learning centers and the materials in them, they have some of the essential supports necessary for their play to continue developing in complexity. The play-based learning that happens in centers



addresses NYSPLS Standard PK.AL.1 (Actively and confidently engages in play as a means of exploration and learning). This same play helps children develop the background knowledge of NYSPLS Standard PK.AC.2 (Demonstrates they are building background knowledge) which is essential for making connections and deepening understandings. For these reasons, teachers should ensure that children have access to and can choose from a variety of learning center materials for one-third of the pre-K day, and support children's engagement in play during center time, making adjustments to the daily schedule to weave in small and whole group activities without infringing on that time. NYSPLS standards are included for all of the activity suggestions here and opportunities for assessment are embedded.

Text suggestions that complement these materials and activities are also included.



Blocks/Construction

Critical thinking questions/statements:

Tell me about your work. I notice that you _____. What are some other things you could add? I wonder what would happen if _____. How do you know? How could you build _____? What is your conclusion?

Suggested Text:

Benji, the Bad Day, and Me by Sally J. Pla

Benji and Sammy do many things together and can help each other feel better when they are upset. One of the things they do together is build with blocks. Invite the children to build together too.

PK.AL.1 Actively engages in play as a means of exploration and learning

Reintroduce Blocks and Building Materials from Unit 4:

Provide various types of blocks and building materials such as Lincoln Logs, small blocks, big blocks (cardboard or wood), Duplos, etc. for children. This may be a good time to rotate building materials. Invite children to build their own homes or buildings near where they live (Unit 4: Where We Live).

Talk with children about how they can combine and transform the materials (i.e. Lego pieces, blocks) into something new (a structure) as they work. Use this as a conversation starter to discuss the changes that occur when homes or buildings are built, rebuilt, or remodeled. Children may also want to create subway lines, or roads connecting their buildings. Use vocabulary related to change such as *taller, shorter, bigger*, and *smaller* as the children play.

PK.AL.1 Actively engages in play as a means of exploration and learning

Taller:

Begin building a tower in the Blocks/Construction Area. Invite children to make the tower taller. Ask them to think about how they can make the tower taller and then work together on this task. Encourage them to see how tall they can make the tower. Additionally, encourage children to think of other ways to change the tower, such as making it smaller, wider or narrower.

PK.AL.1 Actively engages in play as a means of exploration and learning

Bridge Challenge:

Use paper to create a small river in the Blocks/Construction Center. Challenge children to create a bridge from materials in this center to cross the river. As children are successful with this activity increase the width of the river so they can continue to problem solve and create longer bridges. Invite children to name their bridges and provide paper and writing utensils for children to add labels.

PK.SCI.10. [K-2-ETS1-1.] Asks questions, makes observations, and gathers information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool



How Tall Are You?

Invite children to measure each other with blocks. Provide tools for recording such as paper and writing utensils. After children measure each other, invite them to predict how tall they think they will be when they are grown up. Observe how children measure each other (e.g. standing or lying down) throughout the activity.

PK.MATH.10. [NY-PK.MD.1.] Identifies measurable attributes of objects, such as length or weight, and describes them using appropriate vocabulary (e.g., small, big, short, tall, empty, full, heavy, light)

√ **Opportunity for Assessment:** What vocabulary does the child use to describe his/her height?



Dramatic Play

Critical thinking questions/statements:

Who are you going to be today? I wonder what would happen if _____? What will you do next? What do you think about _____? What does that remind you of?

Suggested Text:

I'm Big Now! by Anthea Simmons

Set up the Dramatic Play area as a home. Invite children to pretend to do things babies do as well as things that bigger children do.

PK.AL.1 Actively engages in play as a means of exploration and learning

Reintroduce Meteorologist from Unit 7:

Invite children to pretend to give the weather forecast. Provide clothing for children to use to pretend they are meteorologists on TV, a large map, pictures of various types of weather, and weather charts for children to read. Help them read the weather maps and ask them questions about what they see. (Unit 7: Water).

As children play with these materials encourage them to consider how weather changes and how people respond to changes in weather. They could point out how the weather will change and what people might want to do to prepare (e.g., It is sunny now but the weather is changing and clouds are rolling in; you may want to bring an umbrella today!). Use words such as *weather* and *change* frequently throughout this activity.

PK.SCI.7. [*P-ESS1-1.*] Observes and describes the apparent motions of the sun, moon, and stars to recognize predictable patterns

House Challenge:

If available, provide large blocks as well as sheer fabric pieces and challenge children to transform these materials into a house big enough for them to fit inside. After children have created a house they can play in it.

PK.AL.2 Actively engages in problem solving

Moving Day:

Set up dramatic play as a home. Add boxes and moving supplies such as tape, labels, writing utensils, etc. for children to use to pretend to move to a new home. Consider collaborating with families of children who may be anxious about an upcoming move to discuss resources and strategies to make the transition smooth.

PK.SOC.6. Develops an understanding of how people and things change over time and how to relate past events to their present and future activities

Entomologist Lab:

Create an entomologist lab for the children to study insects. Provide small toy insects, microscopes, magnifying glasses, lab coats, goggles, paper for note taking and observations as well as literature on insects, pictures of insects and insects in various stages of the life cycle. Invite children to study the insects paying close attention how insects change throughout their lives.

PK.SCI.6. [*P-LS*3-1.] Describes how some young plants and animals are similar to, but not exactly like, their parents.

 $\sqrt{\text{Opportunity for Assessment: What does the child do or say as they play that demonstrates understanding of insect life cycles?$



Kindergarten:

Invite children to create a kindergarten classroom in the dramatic play area. They can discuss what they think kindergarten will be like, create a classroom accordingly, then take on roles, and pretend it is the beginning of their kindergarten year. If children are unfamiliar with kindergarten, consider providing books, or using other resources such as an online search engine, or pictures from kindergarten classes as inspiration for this activity.

PK.SEL.7. Adapts to change

Disguises:

Provide materials children can use to create disguises such as hats, a variety of glasses, mustaches/beards, wigs, and various clothing items. Use the word *disguise* frequently and talk with children about how a disguise can change their *appearance* or the way they look. If possible, take pictures of children in their disguises and invite other people to guess the identity of each disguised child. Use these pictures to create a class book.

PK.AL.1 Actively engages in play as a means of exploration and learning

Adults:

Provide props for children to pretend they are adults such as clothing or uniforms for work, purses, wallets, pretend money, credit cards, keys, MetroCards, etc. Talk with children about how they will change as they grow up and invite them to pretend they are adults. Observe how children act and speak as they take on an adult role. Be sensitive to children who may reflect complex adult circumstances in their play.

PK.ELAL.27. [PKL.4] Explores and uses new vocabulary in child-centered, authentic, play-based experiences



Art

Critical thinking questions/statements:

Tell me about your art. What did you notice about _____? I notice that you _____. How did you do that? What will you try next? Why? How does this picture, painting, drawing, etc. make you feel? Why?

Suggested Text:

Hey Wall by Susan Verde

Cover a wall (or a section of a wall) with cardboard or large pieces of paper. Invite the children to work together to create a mural on it.

PK.ELAL.16. [*PKW.4*] Creates a response to a text, author, or personal experience (e.g., dramatization, art work or poem)

Note:

Children have varying levels of sensitivity to sensory experiences. Do not force children to touch materials. Invite children to participate and observe their behavior carefully. Respond to the cues they give you about their readiness to participate.

Reintroduce Paper Plate Emotions from Unit 3:

Cut paper plates in half, give children half of a plate and invite them to draw a mouth expressing an emotion (i.e. a smile for happy, frown for sad) on one side of the plate then turn the plate over and draw another mouth expressing a different emotion on the back. Attach a Popsicle stick to the bottom of the plate for children to hold, and provide a mirror for children to use as they hold the emotion mask over their own mouths (Unit 3: All About Us).

After looking at themselves with one expression, ask children to turn the plate around and look at themselves with the other expression. Use this as an opportunity to start a discussion about emotions. Invite children to consider how and why emotions can change, including how actions and words can have an effect on other people's emotions.

PK.SEL.1. Regulates responses to needs, feelings and events

Transform This Challenge:

Supply various objects such as recycled materials and challenge children to select one and transform it into something new. Allow children to use an assortment of art materials such as recycled materials, collage materials, markers, paint, glue, etc. to transform the object they select. Talk with the children about what the original item was and what they have transformed it into as well as how they transformed the object. When finished, children can work in the writing area and write about how they transformed the object.

PK.SCI.10. [K-2-ETS1-1.] Asks questions, makes observations, and gathers information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool

Weaving:

Tie multiple pieces of string across a hula hoop to create a loom and invite children to use various pieces of ribbon or yarn to weave over and under the string. Discuss how the individual ribbons transform into something new. This can also be done on a smaller scale using a frame made from craft sticks and pipe cleaners or similar materials.

PK.AL.3. Approaches tasks and problems with creativity, imagination and/or willingness to try new experiences



Color Mixing:

Supply red, yellow, and blue paint and invite children to explore coloring mixing (focusing how colors can change into new colors). After the paintings dry, place them in the Science Area for observation. Invite children to share their observations or use their Science Journals to note discoveries.

PK.AL.1 Actively engages in play as a means of exploration and learning

Weather Art:

Provide materials that children can use to represent a variety of weather experiences such as yellow paint and glitter for sunshine, pipettes and light blue paint for rain, cotton balls for clouds, etc. Divide a large piece of paper into several sections and invite children to create a different type of weather in each section or let children create several different art pieces, one for each type of weather they would like to represent. Consider providing pictures of weather related artwork such as *Thunderstorm* by R.C. Gorman, Sky Light by Alma Woodsey Thomas, The Weather Project by Olafur Eliasson, or another art piece involving light that may be more responsive to your classroom community. Later in the day/week children can label their pieces with names of the kinds of weather.

PK.SCI.7. [*P-ESS1-1.*] Observes and describes the apparent motions of the sun, moon, and stars to recognize predictable patterns

Sculpture:

Invite children to use recycled materials such as boxes and containers to create sculptures. Supply tape or glue to secure the materials together. As children work, talk about how they are transforming the individual items into something new and how the shape of the items is important to the overall structure.

PK.SCI.11. [K-2-ETS1-2.] Develops a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem

 $\sqrt{\text{Opportunity for Assessment:}}$ How does the child consider the shape of the items they use to create a sculpture?

Butterfly Wings:

Invite children to create butterfly wings with items such as tag board, paint, markers and/or other decorations. Encourage children to talk about their unique designs. Children can wear their wings on their backs and pretend they are butterflies, use string and tape to create shoulder straps, or create their own way to wear their wings. Talk about metamorphosis and how butterflies might feel about their wings. Children can later wear their wings as they dance in the Music and Movement area or as they write a butterfly story in the Writing Area.

PK.SCI.5. [*P-LS1-2.*] Participates in investigations to determine how familiar plants and/or animals use their external parts to help them survive in the environment

Rain Painting:

Invite children to use spoons to make very small piles of powdered tempera paint on a large piece of paper. Place the paper outside in a light rain or provide spray bottles filled with water and invite children to mist the paper with the water and watch as the powdered tempera paint changes. Ask children to consider what happened and why.

PK.AL.4. Exhibits curiosity, interest, and willingness to learn new things and have new experiences

Always Me:

Invite children to create representations of themselves using a variety of mediums (pencil and paper, paint, clay, collage materials, etc.) over a series of days (one medium per day). Provide mirrors for them to look carefully at their features. After they have several representations of themselves display their pieces of work together and invite children to talk about what things are the same in every piece (e.g. "I always have eyes"). Point out to the children that even though many things change some things always stay the same. If children have been making and saving self-portraits from the beginning of the year, include them in the displays and encourage children to compare all of their work.

PK.SEL.2. Recognizes self as an individual having unique abilities, characteristics, feelings and interests



Limited Numbers

Provide assorted open-ended materials the children can use to create art. Suggest a category by which the children can sort the objects as well as a number and invite them to take the correct number of items and use them to make any type of art they would like. For example, you might suggest they find and use four red items or three round items. Repeat according to the children's interests. In each round, they can build on their original work, or create something new.

PK.MATH.4b. [*NY-PK.CC.4b*] *Given a number from 1- 10, counts out that many objects*



Science/Discovery

Critical thinking questions/statements:

What did you observe here/when _____? What did your sense of _____ tell you about _____? What will you try next? I wonder what would happen if _____? How do you know? How could we find out?

Suggested Text:

Caterpillar to Butterfly by Laura Marsh.

Provide caterpillars and invite the children to observe them as they change from caterpillars to butterflies. Refer them to *Caterpillar to Butterfly* as they observe to find answers to any questions they have.

PK.AC.3 Demonstrates understanding of what is observed

Reintroduce Ramp Races from Unit 5:

Invite children to create a variety of ramps and use different vehicles to race, predicting which one will go down the fastest and why. Chart their responses and try their suggestions (Unit 5: Transportation).

Select one vehicle to go down the ramp. Time how long it takes for the vehicle to make it down the ramp, record the answer and then ask the children to consider how they can change the amount of time it takes for the vehicle to go down the ramp. What can they change to make it take longer for the vehicle to make it down the ramp? What can they change to make it take less time?

PK.SCI.10. [K-2-ETS1-1.] Asks questions, makes observations, and gathers information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool

Class Pet:

If you have a class pet, invite children to reflect on the way the pet has changed this year. Children can write/draw their observations and reflections.

PK.SCI.5. [P-LS1-2.] Participates in investigations to determine how familiar plants and/or animals use their external parts to help them survive in the environment

Kaleidoscope:

If available, provide kaleidoscopes for children to explore. Encourage them to note the changes they see and consider how these changes occur.

PK.AL.4. Exhibits curiosity, interest, and willingness to learn new things and have new experiences

Reintroduce Class Plant from Unit 8:

Reintroduce Class Plant: Pick seeds that grow quickly, such as lima beans, to plant in the classroom. Create a class chart of predictions on how long it will take the seeds to grow. Invite the children to periodically measure plant growth and record the results. Be certain that plants are not poisonous, pose no harm to children, and are maintained safely. In addition, be sure that children are not allergic to any of the plants in the classroom (Unit 8: Plants).

As the plant grows, note the visible changes that occur and invite children to record their observations through drawing or emergent writing.

PK.AC.6. Demonstrates their ability to represent ideas using a variety of methods



Temperature:

Place a thermometer outside a classroom window in a place where children are able to see the thermometer. Invite them to observe and record/chart and discuss the changes they notice.

PK.SCI.8. [*P-ESS2-1.*] Asks questions, makes observations, and collects and records data using simple instruments to recognize patterns about how local weather conditions change daily and seasonally.



Fill a pan or tray with about ½ inch of water. Challenge children to use sugar cubes to build a tower in the tray. How many cubes can they use before the cubes dissolve? To see the changes that occur throughout the activity more clearly, use food coloring to color the water.

PK.AL.4. Exhibits curiosity, interest, and willingness to learn new things and have new experiences

Vinegar and Baking Soda:

Ask children to predict what might happen when baking soda and vinegar are combined. Have them record their predictions (or record for them), provide the two materials, and invite the children to experiment. Provide measuring spoons and containers of various sizes, and encourage them to experiment with differing amounts of baking soda and vinegar.

PK.MATH.10. [NY-PK.MD.1.] Identifies measurable attributes of objects, such as length or weight, and describes them using appropriate vocabulary (e.g., small, big, short, tall, empty, full, heavy, light)

Melt in the Sun:

Place a variety of items in a muffin tin or in several small bowls or containers. Select some items that will melt when left in the sun and some that will not. Items that might melt in the sun include crayons, ice cubes and marshmallows. Ask children how long they think it would take the items to melt. An hour? A day? Why?

PK.SCI.9. [*P-PS*₃-1.] Participates in an investigation to determine the effect of sunlight on Earth's surface.

Does it Change?

Provide an assortment of materials for children to combine such as oil and vinegar and flour and water. Invite children to predict what will happen when they mix the materials. Once they mix materials, ask them to reflect on their predictions and the changes that occur. Do the materials change? How?

PK.SCI.1. [P-PS1-1.] Asks questions and uses observations to test the claim that different kinds of matter exist as either solid or liquid

Seed/Plant Match:

Supply a variety of seeds as well as pictures of what the seed will look like as a plant. Invite children to match the seeds to the correct plant and talk about how the seed will grow and change. If possible, plant a few of the seeds and observe how they grow.

PK.SCI.6. [*P-LS*3-1.] Describes how some young plants and animals are similar to, but not exactly like, their parents.



Metamorphosis:

Supply pictures of various insects or animals that experience metamorphosis such as butterflies and toads and invite children to sequence the pictures. Talk with them about the changes they notice in the pictures. Use the words *metamorphosis*, *pupa*, *grow*, *change*, and *life cycle* frequently throughout the activity. If possible, observe live animals by bringing them into the classroom or visiting pet stores or other locations where they might have these animals. When bringing animals into the classroom, comply with all requirements of your licensing agency.

PK.SCI.6. [*P-LS*₃-1.] Describes how some young plants and animals are similar to, but not exactly like, their parents.

Chameleon:

Share with children that a chameleon is an animal that can change the color of its skin. Chameleons change their coloring to communicate with other chameleons and sometimes change their color to blend into their surroundings or camouflage themselves. Trace a chameleon onto a clear surface (like an overhead projector sheet) and invite the children to place it in various places in the classroom to mimic how chameleons can change the color of their skin. Children can generate ideas about why the chameleon might change its color in each area. Use the word *camouflage* frequently throughout this activity.

PK.SCI.5. [*P-LS1-2.*] Participates in investigations to determine how familiar plants and/or animals use their external parts to help them survive in the environment

Transformation Journal:

Provide a journal for children to use as a place to record changes they notice in materials they observe in the Science Center. Ideas for observation include melting ice, combining baking soda and vinegar, butterfly metamorphosis, etc. Journals can be made by stapling blank, unlined sheets of paper together. Notice the transformation words children use throughout this experience (e.g., *bigger, combine, darker, lighter, metamorphosis, smaller* and *state*) and expand on these words with the children.

PK.AC.5. Demonstrates a growing expressive vocabulary

√ Opportunity for Assessment: What new transformation related words does the child use as they work?

Music in Jars

Provide several small glass jars as well as a pitcher of water and a metal spoon. Invite the children to pour a different amount of water in each jar and gently tap the spoon on the side of a jar. After trying one jar, invite the children to gently tap the spoon on the side of the other jars and note what they hear. As children explore, Invite them to use the pitcher of water to add water to the jars and note the way the water changes the sounds they hear.

PK.SCI.3. [*P-PS4-1.*] *Plans and conducts investigations to provide evidence that sound is produced by vibrating materials.*



Toys and Games / Math Manipulatives

Critical thinking questions/statements:

I notice that you _____. What do you notice? What happened when you _____? Why do you think that happened? If I want to _____, what should I do? Why? Tell me about _____. How do you know? Tell me why ____.

Suggested Text:

The Very Hungry Caterpillar by Eric Carle Provide materials for the children to use to retell this story. Note how the children put the food items in order from one to five as they retell the story. Support them as needed. Note; consider replacing the food items from the book with items the children in your class especially enjoy or are relevant to the classroom community. PK.MATH.4b. [NY-PK.CC.4b] *Given a number from*

1-10, counts out that many objects

Reintroduce Light Table from Unit 6:

Supply translucent plastic drinking straws in a variety of colors as well as small balls of playdough or pencil grips. Invite children to use the straws to create shapes or build structures with the straws. The playdough or pencil grips can be used to secure the shapes at the angles (Unit 6: Light).

After children have created a shape, ask them what they can do to transform the shape into a new shape. As they explore this question, talk to them about the properties of the shapes (e.g. "First you created a square. You used four straws, one for each side of the square. Now you took away one straw and put the sides back together. You transformed the square into a triangle!)

*PK.MATH.*15. [NY-*PK.G.*4.] Creates and builds shapes from components (e.g., sticks, blocks, clay)

Cup Challenge:

Cup Challenge: Supply a large amount of plastic cups. Challenge children to see how high they can build. Can they make a tower taller than they are? Can they make a tower as tall as a teacher?

PK.AL.2 Actively engages in problem solving

Addition:

Tape two cardboard tubes diagonally onto a wall facing each other. Place a basket or container below the tubes so that when items are dropped into the tubes they will both fall into the basket. Drop cotton balls or small colored pom-poms into one tube, then into the other tube, saying how many you put in each side and then how many there are in the basket (all together). For example, "Two on one side and two more on the other side made four in the basket.") Talk with children about how adding items together changes the quantity. Highlight the use of the word *more* throughout the activity. Also consider adding paper and writing utensils and inviting children to write the numbers or number sentences they create.

PK.MATH.8. [NY-PK.OA.1.] Explores addition and subtraction by using objects, fingers, and responding to real world situations (e.g., if we have 3 apples and add two more, how many apples do we have all together?)

$\sqrt{\text{Opportunity for Assessment}}$

What does the child understand about addition?



Floor Puzzles:

Invite children to assemble puzzles, including large floor puzzles (if available) and discuss how putting the pieces together transforms the pieces from many small designs or pictures into a larger picture.

PK.AL.4. Exhibits curiosity, interest, and willingness to learn new things and have new experiences

Butterfly Wing Symmetry:

Invite children to look carefully at butterfly wings and note how the designs on the wings are symmetric, or mirror each other. Was the butterfly symmetrical when it was a caterpillar? Invite children to create symmetric designs for butterfly wings by drawing a thick line down the middle of a piece of paper and inviting children to use pattern blocks to create symmetrical designs on each side of the line. Talk about the shapes children are using and where they place them on the paper.

PK.MATH.12. [*NY-PK.G.1.*] Describes objects in the environment using names of shapes and describes the relative positions of these objects using terms such as top, bottom, up, down, above, below, in front of, behind, over, under, next to



Sand and Water / Sensory

Critical thinking questions/statements:

What happens when ____? Why? How do you think that works? Why? How could you change that? What does that remind you of? Why? What would happen if ____? Tell me more.

Suggested Text:

Water Is Water by Miranda Paul.

Ask children about the many things water can be as they play with water in the sensory table. Consider placing pictures from this book on the walls near the Sand and Water/Sensory table.

PK.AC.2. Demonstrates they are building background knowledge

Notes:

Children have varying levels of sensitivity to sensory experiences. Do not force children to touch materials. Invite children to participate and observe their behavior carefully. Respond to the cues they give you about their readiness to participate.

There should always be materials available in a sensory table that allow children to dig, scoop, pour, fill containers, and experiment with the sand/water. Children should wash their hands before and after using the Sand and Water/Sensory table.

Reintroduce Explore Ice from Unit 7:

Reintroduce Explore Ice: Add ice cubes to the sensory table. Invite children to explore the ice (Unit 7: Water).

Add pipettes and cups of warm (not hot) colored water. Have children explore the ice, noting how the ice changes when they squirt the colored water on it. Additionally they can explore what happens to the colored water as the ice melts. Discuss these changes with the children as they investigate.

PK.SCI.1. [P-PS1-1.] Asks questions and uses observations to test the claim that different kinds of matter exist as either solid or liquid

Keep the Boat Afloat Challenge:

Provide a small toy boat and a number of small manipulatives or items such as pennies or small blocks. Challenge children to see how many items they can place on the boat before the boat sinks.

PK.MATH.1. [NY-PK.CC.1.] Counts to 20

Paper Making:

Fill the sensory table with ripped or shredded paper. Most of the paper should be previously ripped or shredded but children can continue to rip the paper in the table. Add water to the paper and invite children to rip the paper and to scoop, mix, pour and mash until a mush, or pulp, is formed. If available, use a blender to create a finer pulp. Cover a mesh screen with pulp and allow the water to drain from the pulp through the screen. Use a sponge to press out additional water. Place a piece of white felt or cloth on top of the pulp to press out any remaining water. Leave the felt on the pulp then turn the screen over and place on a flat surface. The wet paper should fall off the screen and onto the felt. Place the wet paper in a sunny place (if possible) to dry. It will take about 24 hours for the paper to dry. Talk with children about the way materials can change and the role they play in changing materials and objects. Use words such as *purpose*, *repurpose* and *recycle* frequently throughout the activity.

PK.SCI.10. [K-2-ETS1-1.] Asks questions, makes observations, and gathers information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool

SEE PAGE 54 FOR LESSON PLAN



Rain:

Add plastic cups with holes in the bottom to the water in the sensory table. Invite children to fill the cups with water then lift them out of the water and hold them over the table to make rain. Talk with the children about changes in weather and the changes that happen when it rains (objects get wet, dirt turns to mud, emotions may change, etc.).

PK.SCI.8. [*P-ESS2-1.*] Asks questions, makes observations, and collects and records data using simple instruments to recognize patterns about how local weather conditions change daily and seasonally.

Weaving:

Secure several pieces of string across an additional sensory bin to create a loom. Invite children to weave various pieces of ribbon, yarn, string, etc. over and under the string to create a weaving. Discuss how the children transformed the individual pieces into something new.

PK.AL.3. Approaches tasks and problems with creativity, imagination and/or willingness to try new experiences

Dirt to Mud:

Ask children to predict how much water it will take to turn a container of dirt into mud. Record and test their predictions by counting the number of units (drops/cups/etc.) of water added to the dirt to make mud. Consider charting or graphing the results.

PK.MATH.1. [NY-PK.CC.1.] Counts to 20

√ Opportunity for Assessment: How many units is the child able to count?

Chalk Mush:

Add pieces of sidewalk chalk to a small amount of water in the sensory table or an additional sensory bin. Allow the chalk to soak in the water before the children are invited to play. Supply potato mashers and invite the children to use them to change the pieces of chalk into mush to play with in the table. This is a good way to repurpose small pieces of chalk.

PK.SCI.1. [P-PS1-1.] Asks questions and uses observations to test the claim that different kinds of matter exist as either solid or liquid



Library

Critical thinking questions/statements:

Tell me about this book. What do you like about this book? What is your favorite part of this book? Why? What do you notice? What do you think is happening? What will happen next? Does that remind you of anything? What? Would you recommend this book to a friend? Why or why not?

Reintroduce Round Trip by Ann Jonas from Unit 6:

Read the text, *Round Trip* by Ann Jonas, aloud to the class, pausing to reflect with the children throughout the book.

After reading the book with the children, look very carefully at a page or two with the children and talk about how the pictures transform when you turn the book over.

PK.ELAL.21. [PKSL.3] Identifies the speaker

Felt Board Stories:

Create felt pieces that relate to one of the transformation books the class enjoys most. Invite children to use these pieces to retell the story.

PK.ELAL.6. [*PKR.2*] *Retells stories or share information from a text*

 $\sqrt{\text{Opportunity for Assessment: What information}}$ is the child able to recall and retell from the story?

Puppets:

Puppets: Add puppets to the library and invite children to use them to read or act out some of their favorite transformation books.

PK.ELAL.6. [*PKR.2*] *Retells stories or share information from a text*

Compare Stories:

Add a selection of books from the Supporting Text List in Section V for children to access and independently explore. After children have the opportunity to read a variety of transformation related books invite them to compare and contrast two of them.

PK.ELAL.12. [PKR.9] Makes connections between self, text, and the world (e.g., what is familiar, what does an event/picture/character make them think of, what do they remember)



Cooking and Mixing

(as needed)

Critical thinking questions/statements:

Why do you think we are adding ____? What would happen if ____? What do you notice as we do this? How does it smell/feel/look/sound/taste? What does this remind you of?

Note:

Be mindful of children's food intolerances and allergies by connecting with families before you do cooking activities and explicitly teaching children how being aware of allergies keeps us safe.

Children must always wash hands before and after cooking experiences.

PK.PDH.7. Demonstrates personal care and hygiene skills

Snacks and meals must be of adequate nutritional value. When providing snacks and meals, supplement with other components of a healthy meal/snack according to appropriate meal guidelines in order to make sure children's nutritional needs are met.

Suggested Text:

From Milk to Ice Cream by Stacy Taus-Bolstad.

After reading this book with the children make ice cream together in the classroom. See Section XI: Appendices for sample recipe.

PK.ELAL.9 [*PKR.5*] Interacts with a variety of genres (e.g., storybooks, poems, songs)

Popcorn:

If possible, make popcorn with the children. Show them the popcorn kernels in advance and talk about how the kernels change when heated.

PK.AC.3 Demonstrates understanding of what is observed



Supply fresh oranges and challenge the children to figure out how to turn the oranges into orange juice. Guide them through the experience with openended questions. This activity could be implemented over the course of two days. On the first day, ask children to plan how they will turn the oranges into juice, including making a list of what they might need. On the second day, supply some of the materials they will need in order to accomplish this challenge. When children are ready to drink their orange juice talk with them about making healthy food choices.

PK.PDH.8. Demonstrates awareness and understanding of healthy habits

Cooking Experience:

Supply child friendly cookbooks for children to explore. Invite them to select a recipe to make in the classroom together. Read the recipes with the children and talk about how the recipe ingredients change throughout the cooking experience. For example, "When we combined the milk and flour they transformed into mush!"

PK.AC.3 Demonstrates understanding of what is observed



Computer/Technology

Content should be free of product placement/advertising. Children are not to use computers or other devices with screens more than 15 minutes per day, with a maximum of 30 minutes per week. Exceptions to this limit may be made for children with disabilities who require assistive computer technology as outlines in their Individualized Education Program. Prescreen images and videos to make sure they are appropriate for children and not frightening or explicit. Do not use personal devices and ensure that you have signed permission before taking photographs of children.

Critical thinking questions/statements:

I notice that you _____. How did you figure that out? What will you do next? What if you try _____? How could you _____?

Dance:

Pull up short video clips of dances (e.g. ballet or folk dances, or another type of dance that is more responsive to the classroom community). Invite the children share their thoughts about the different dances as well as ponder and discuss the tools used to capture the dancing and play it on the screen.

PK.ARTS.7. [MA:Re7-9.PK] Responds and Connects to Media Arts

Butterfly Metamorphosis:

Use a search engine to pull up images and information about butterfly metamorphosis. Share the information and pictures with a small group of children and discuss. Also, consider investigating insect and amphibian metamorphosis (i.e. ladybugs, toads) with the children in this manner.

PK.SCI.6. [*P-LS*3-1.] Describes how some young plants and animals are similar to, but not exactly like, their parents.

Optical Illusions:

Use a search engine to pull up optical illusions for children to observe and consider how one picture can appear to change or look like multiple images. Print some of the images and hang in the art area to inspire children to create their own optical illusions.

PK.AL.3. Approaches tasks and problems with creativity, imagination and/or willingness to try new experiences

Edit Photos:

If an iPad or similar tool is available take a picture then use the editing feature to change the photo.

PK.ARTS.6. [MA:Cr4-6.PK] Produces Media Arts

 $\sqrt{\text{Opportunity for Assessment: What does the child notice and discuss about editing the photo?}$

Butterfly Wing Symmetry:

Use a search engine to pull up images of different kinds of butterflies. Discuss how the designs on the wings are symmetrical by encouraging children to notice the placement of the designs on each wing. Use these images as inspiration for the butterfly wing activity in the Art Center.

PK.MATH.12. [*NY-PK.G.1.*] Describes objects in the environment using names of shapes and describes the relative positions of these objects using terms such as top, bottom, up, down, above, below, in front of, behind, over, under, next to

Kindergarten:

For children who will be attending kindergarten at a different location pull up pictures of the school(s) these children will be attending. Talk with the children about the images and discuss the ways the new school looks the same and different from the building where they attend pre-K.

PK.SOC.6. Develops an understanding of how people and things change over time and how to relate past events to their present and future activities



Outdoors / Playground

Critical thinking questions/statements:

I saw you _____. What will you do next? If you try _____, what do you notice? How did you do _____? How does it feel outside today? What do you see?

Suggested Text:

This is the Rope by Jacqueline Woodson

The rope in this story traveled with the family from South Carolina, to Brooklyn, and beyond. The girl, her mama, and grandma all skipped rope with it. Provide a rope and invite the children to try skipping it.

PK.PDH.4. Combines a sequence of large motor skills with and without the use of equipment

Reintroduce Fall Leaves from Unit 2:

Draw a tree trunk and branches on heavy paper and bring outside; provide children with squirt bottles filled with water the color of fall leaves. Invite children to spray the water to represent the leaves (Unit 2: My Five Senses).

Draw another large tree trunk and branches on heavy paper as well. Supply materials such as a spray bottle with green water or green paper, scissors and tape for children to use to make the new tree look like the trees they see outside now. Also consider providing additional tree trunks and branches for children to depict trees in the winter and spring. Children can dip a finger into paint to add buds to a spring tree or cotton balls and glue to create a snowy tree in winter. Talk with children about the changes in seasons and the changes that occur in trees throughout the year. Later, in the Writing Center, children can add labels such as the names of the seasons.

PK.SCI.7. [*P-ESS1-1.*] Observes and describes the apparent motions of the sun, moon, and stars to recognize predictable patterns

Don't Ring the Bells Challenge:

Hang small bells at a low level on the playground or outside space and challenge children to move their bodies so they can go under the bells without ringing them. Also consider hanging bells in other places such as tying a few to the inside of a hula hoop, hanging the hula hoop then inviting children to climb through the hoop without ringing the bells. Talk about the ways children move and change their bodies to complete this challenge as well as things that should not change such as the position of the bells.

*PK.PDH.*₃ *Demonstrates coordination and control of large muscles.*

Changes Due to Weather:

Ask children how different types of weather may change things in the outdoor space children use at pre-K. For example, if there is a puddle in the space, ask children to consider how the puddle might change if it becomes very cold outside or if it becomes very sunny and warm. Alternatively ask children to consider how everything in the outdoor space can change if it rains, snows, etc.

PK.SCI.8. [P-ESS2-1.] Asks questions, makes observations, and collects and records data using simple instruments to recognize patterns about how local weather conditions change daily and seasonally.



Squish and Stretch:

Draw a set of four lines on the ground with sidewalk chalk, each about twelve inches apart. Draw one set of lines for each child who chooses to participate. Invite children to change the shape of their bodies so they are covering, spanning or in between a specified number of lines. Children can stand and do the movements, or sit or lie down (be sure the ground is free of dangerous objects). For example, "Can you stretch your body so it covers four lines?" After children do one movement, ask them to change their position so they cover a different number of lines such as, "Now can you change your position and squish your body together so you fit in between two lines?" Repeat with other directions and talk about how children change their position and shape each time you give new directions.

PK.PDH.2. Uses sensory information to plan and carry out movements

Statues:

Invite children to use their bodies to create statues. Use an auditory signal such as a hand clap or bell to invite them to change their positions and create a new statue.

PK.PDH.6. Engages in a variety of physical fitness activities

Change Your Speed:

Invite children to move around the playground at various speeds, using an auditory signal like hand clapping or tapping a triangle to suggest how fast or slow they should be moving. Ask children to pause throughout the activity and place a hand over their heart to feel their heartbeat. Encourage them to note changes in their heartbeat and breathing based on the type of movement they are doing.

PK.PDH.6. Engages in a variety of physical fitness activities

I'm in the Art

Use chalk to create a picture or item in which the children can add their bodies. Invite the children to pose in the chalk drawing and use a camera to take a picture of them. If possible, print the pictures and display in the classroom. Children may also want to draw their own chalk pictures for this activity.







PK.ARTS.5. [MA:Cr1-3.PK] Creates Media Arts



Writing

Critical thinking questions/statements:

I notice that you _____. That reminds me of _____. What if you try _____? How could we find out ?

Suggested Text:

Cerca by Juan Felipe Herrera

Invite the children to write "Cerca" and/or "Close" on pieces of paper and hang these labels in the classroom near things that are close to each other. Celebrate all the attempts to write that children make.

PK.ELAL.1. [*PKRF.1.*] *Demonstrates understanding of the organization and basic features of print*

Reintroduce Letter Blocks from Unit 9:

Supply small letter blocks. Assist children in exploring the sounds of the letters and invite children to use the blocks to create words or names such as their own names, the names of their classmates or the names of people in their families (Unit 9: Babies).

Invite children to create combinations of blocks and explore how individual letter sounds change when letters are combined. Help children explore the sounds of letters and the sounds of letter combinations. If children are ready invite them to try to spell simple words.

PK.ELAL.3. [PKRF.3.] Demonstrates emergent phonics and word analysis skills

√ **Opportunity for Assessment:** What understanding of sound-letter relationships does the child demonstrate as they engage in this activity?

Transformation Stories:

Encourage children to write a story about something or someone who experiences a change. Ask how the character felt before, during and after the change.

PK.SOC.6. Develops an understanding of how people and things change over time and how to relate past events to their present and future activities

Letter Challenge:

Provide various materials such as twigs, straws, string, chopsticks, tongue depressors, etc. and invite children to transform these materials into letters. Challenge them to see how many letters they can create. Be sure to have printed letters available for children to reference throughout the activity.

PK.AL.3: Approaches tasks, activities and problems with creativity, imagination and/or willingness to try new experiences or activities.

Compound Words:

Supply pictures of things that can be combined to form compound words such as "peanut" and "butter," "butter" and "fly" and "tooth" and "brush" as well as pictures of the compound word. Talk with children about how words and meanings of words can change when they are put together and invite them to explore the pictures and compound words.

*PK.ELAL.*25. [*PKL.*1] Demonstrates command of the conventions of academic English grammar and usage when writing or speaking.



Magnifying Glasses:

Provide two sets of letters- one set that is very, very small and the other set much larger. Invite children to use magnifying glasses to look at the small letters and then find the matching larger letter. Talk about how the magnifying glasses change the size of the small letters so you can see them. Use the words *smaller* and *bigger* frequently throughout the activity.

PK.PDH.1. Uses senses to assist and guide learning.

Invisible Ink:

Supply a white crayon as well as white paper and a highlighter. Invite children to write with the white crayon on the white paper. Encourage them to press hard with the crayon. After children have created a picture or message with the white crayon, invite them to color over their work with a highlighter or watercolor paint. What happens? What changes do they notice?

PK.PDH.1. Uses senses to assist and guide learning.

Change a Letter:

Choose a few simple words that have an initial sound that can be changed to create a new word for example *hat* and *can*. On one half of an egg, write the last two letters of the word. On the other half, write a few letters so that when rotated, new words will be created (for example *cat*, *mat* and *bat*). Encourage children who are interested in letters and the sounds they make to rotate the eggs to make new words.

PK.ELAL.3. [*PKRF.3.*] *Demonstrates emergent phonics and word analysis skills*

Recipe Books:

Invite children to reflect on the cooking and mixing experiences they have had in the classroom this year. Invite them to explore cookbooks and recipes and then create recipes of their own. Children can talk about how the ingredients they use will change throughout the cooking experience. If appropriate, have children make one of the recipes.

PK.ELAL.12. [PKR.9] Makes connections between self, text, and the world (e.g., what is familiar, what does an event/picture/character make them think of, what do they remember)



Music and Movement

Critical thinking questions/statements:

I see you moving like this. I heard you _____. I saw you _____. Tell me about that. Let's try playing the music loud (or soft, fast, slow). Can you try this? How does this music make you feel? Have you heard music like this before? Where?

Suggested Text:

Tito Puente, Mambo King by Monica Brown.

Play some of Tito Puente's music for the children and invite them to sing and dance along.

PK.ARTS.1. [DA:Cr1-3.PK] Creates Dance

Reintroduce Instruments from Unit 1:

Supply different types of basic instruments such as drums, bells, shakers, scarves and music as well as space to move and dance (Unit 1: Welcome to Pre-K).

Invite children to explore the ways they can change the music they make with the instruments such as making it louder, softer, faster or slower.

PK.ARTS.8. [MU:Cr1-3.PK] Creates Music

Instrument Challenge:

Instrument Challenge: Supply various recycled materials such as cardboard boxes, plastic cups, empty and clean food containers, small collage materials such as buttons, beads, etc., and tape or glue. Challenge children to change these materials into instruments.

PK.SCI.10. [K-2-ETS1-1.] Asks questions, makes observations, and gathers information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool

Body Letters:

Invite children to use their bodies to create letters of the alphabet. Start with one letter then invite them to change their position to create a different letter. Be sure to have letters available for children to reference throughout the activity.

PK.PDH.3. Demonstrates coordination and control of large muscles

Metamorphosis:

Supply pictures of each phase of butterfly metamorphosis. Invite children to look at the pictures and use their bodies to represent each phase. This could be done as a series of poses or as a dance. Use words such as *butterfly, caterpillar, chrysalis, egg, life cycle, metamorphosis and pupa* frequently throughout the activity.

PK.ARTS.2. [DA:Pr4-6.PK] Performs Dance

Music Around the World:

Share music from various cultures around the world or invite families to share music their family enjoys. Play the music for the children and invite them to think about how the music makes them feel and invite them to dance accordingly.

PK.ARTS.4. [DA:Cn10-11.PK] Connects to Dance



Transformation Movement:

Suggest various transformation related words (e.g. grow, shrink, stretch) and invite children to use their bodies to represent these words. This could be done as a serious of poses or as a dance.

PK.ARTS.1. [DA:Cr1-3.PK] Creates Dance

Audience:

Invite children to be the audience as other children give Transformation movement performances based on the activities suggested in this section. Discuss the role of an audience member prior to implementing this activity and consider inviting children to create materials such as tickets and programs for the performance.

PK.ARTS.3. [DA:Re7-9.PK] Responds to Dance

Audience Reviews:

After children have been audience members at their peers' Transformation movement performances invite them to share the things they liked best about the performance. Record their responses and hang them in the Music and Movement Area.

PK.ARTS.3. [DA:Re7-9.PK] Responds to Dance

Volume

Invite the children to explore how the volume in music can change. Find a song or piece of music that includes variation in volume, or adjust the volume as you share music with the children. If the children would like, invite them to dance to the music as well. If possible, ask children's families to share music for this activity.

PK.ARTS.11. [MU:Cn10-11.PK] Connects to Music



V. Foundational and Supporting Texts

Books are essential to a well-planned unit and ground the learning experiences for children. Engage children with books throughout the day. Read alouds can occur in large group and small group as well as in centers. Books can be incorporated throughout the room and enhance children's learning through play. Some books are read repeatedly throughout the unit. Some books will be read only once or twice throughout the unit; these are supporting texts. Supporting texts compliment focus questions and areas of interest or may be related to the essential question or enduring understandings of the unit. Select the books that seem most relevant to your classroom community. Additionally, the following list is not exhaustive and can be supplemented by similar books. Not only can these books be read aloud both formally and informally, but children should also be able to access and read these books on their own. Allowing children access to classroom books encourages children to display emergent reading behaviors and address PK.ELAL.4. [PKRF.4.] Displays emergent reading behaviors with purpose and understanding.

*Books with an asterisk are also available in languages other than English

Foundational Texts

Maybe Something Beautiful by F. Isabel Campoy: Art can inspire transformation and even the smallest artists can accomplish something big.

More-igami by Dori Kleber: Joey loves things that fold.

Little Tree by Loren Long: A young tree holds tight to his leaves, even as everyone else lets theirs drop.

I'm Big Now by Anthea Simmons: When you are big, you're not the baby anymore, but sometimes you want to do the baby things you used to do before!

How to Use Foundational Texts

When you have a text that draws the interest of the children in your class, consider one or more of the following techniques for reading the book multiple times to extend children's thinking:

- Take a "picture walk" through the book the first time you read it by just showing the pictures and asking the children what they see and what they think the book is about.
- Consider reading the book once without pausing so that children hear the cadence of the words and hear the story in its entirety.
- Model skills readers use to gain greater understanding of content by thinking aloud about the meaning of a word in context or drawing a conclusion based on prior knowledge.
- Write down and post children's responses to questions with more than one possible answer.

- Ask children to make predictions based on what they know so far and ask them to explain their thinking.
- Pause throughout the book and ask children to share a new word or idea they heard and explain it using familiar words or contexts.
- Invite children to make connections between the book and their own life experiences.
- Brainstorm potential solutions to a problem a character might be facing.
- Ask children what the character could do differently or ask them what they might do if they were in the place of the main character.
- As the book becomes familiar to the children, ask for volunteers to "read" it to you or small groups of children, letting them describe the pictures and the story in their own words.
- Compare and contrast books with similar content, themes or structures.
- Preview or review texts or parts of texts (particularly vocabulary) for children who need additional language or learning support.
- As children become more familiar with the story or information, use this as the beginning of extension activities like acting out a story, painting or drawing something inspired by the text, or creating puppet shows.



Supporting Texts

A Bag in the Wind by Ted Kooser: Follow a plastic bag on its journey from a landfill into a series of townspeople's lives.

Alfie: (The Turtle That Disappeared) by Thyra Heder: Nia loves Alfie, her pet turtle. But he's not very soft, he doesn't do tricks, and he's pretty quiet. Sometimes she forgets he's even there! That is until the night before Nia's seventh birthday, when Alfie disappears!

Another Important Book by Margaret Wise Brown: Discover all the important things about being Six, Five, Four, Three, One, Two, and you.

Bella's Fall Coat by Lynn Plourde: Bella wants her fall coat--the one her Grams made especially for her--to last forever.

Benji, the Bad day, and Me by Sally J. Pla: Nothing seems to be going right for Sammy today.

*Caterpillar to Butterfly by Laura Marsh: An up close look at exactly how a caterpillar becomes a butterfly.

Cerca (Close) by Juan Felipe Herrera: Some things are close — cerca. Others are far — lejos.

Color Dance by Ann Jonas: Watch as the children create a living kaleidoscope.

Hey, Wall: A Story of Art and Community by Susan Verde: There is a wall in Ángel's neighborhood. Around it, the community bustles with life: music, dancing, laughing. Not the wall. It is bleak. One boy decides to change that. But he can't do it alone.

I Used to Be Afraid by Laura Vaccaro Seeger: Things that may seem scary at first can become magical!

Julian is a Mermaid by Jessica Love: While riding the subway one day, Julián notices three women spectacularly dressed up. When he gets home, daydreaming of the magic he saw, all he can think about is dressing up just like the ladies.

*Leo the Late Bloomer by Robert Kraus: Leo wonders if he'll ever catch up to his friends.

Little Tree by Loren Long: A young tree holds tight to his leaves, even as everyone else lets theirs drop.

Maya's Blanket by Monica Brown: Maya has a special blanket that Grandma stitched with her own two hands. As Maya grows, her blanket becomes worn and frayed.

Recycling Day by Edward Miller: An empty lot slowly becomes a dump.

Small World by Ishta Mercurio: When Nanda is born, the whole of her world is the circle of her mother's arms. But as she grows, the world grows too.

**The New Small Person* by Lauren Child: Everything in Elmore's life changes when a new little person comes along.

The Very Hungry Caterpillar by Eric Carle: Follow the story of a caterpillar throughout its life cycle.

Think Big by Liz Garton Scanlon: The class is eagerly preparing for a multifaceted art performance.

This is the Rope: A Story from the Great Migration by Jacqueline Woodson: A family adapts to change as they hold on to the past and embrace the future.

Tito Puente, Mambo King by Monica Brown: A bilingual picture book biography of musician Tito Puente

Trees to Paper by Lisa M. Herrington: How is paper made?

Water Is Water by Miranda Paul: Drip. Sip. Pour me a cup. Water is water unless....

We Recycle by Torrey Maloof: Reduce, reuse, and recycle. By following this motto, we can help keep the Earth clean.

What Do You Do With an Idea? by Kobi Yamada: The story of one brilliant idea and the child who helps to bring it into the world

Wrinkles by JR: An ode to wrinkles and the stories they tell.



VI. Inquiry and Critical Thinking Questions for Foundational Texts

Critical thinking skills are foundational to learning and educational success.

These questions are based around Webb's Depth of Knowledge Wheel¹, which provides a vocabulary and critical thinking frame of reference when thinking about our children and how they engage with unit content.

Re-read foundational texts throughout the unit, starting with Level 1 questions, and adding more complex questions each time you read them.

¹ http://schools.nyc.gov/NR/rdonlyres/522E69CCo2E3-4871-BC48-BB575AA49E27/o/WebbsDOK.pdf

Maybe Something Beautiful by F. Isabel Campoy

PK.SEL.2. Recognizes self as an individual having unique abilities, characteristics, feelings and interests

Level 1: Recall

What did Mira love to do?

What is a *muralist?*

Level 2: Skill/Concept

What made Mira's heart full of joy? What makes your heart full of joy?

How did Mira's neighborhood change?

Level 3: Strategic Thinking

Why do you think so many people wanted to help paint the neighborhood?

The muralist told the people in the neighborhood, "The world is your canvas." What do you think this means?

Level 4: Extended Thinking

The title of this book is *Maybe Something Beautiful*. Why do you think the author, F. Isabel Campoy picked that title?

What are some things that you think are beautiful? Tell me more about that.

More-igami by Dori Kleber

PK.SOC.6. Develops an understanding of how people and things change over time and how to relate past events to their present and future activities

Level 1: Recall

What does Joey love?

What is origami?

At the beginning of the book, what did Joey use to practice origami? What did he use at the end of the book?

Level 2: Skill/Concept

Why do you think Joey was so interested in origami?

Why did Joey's mom say that all the folding had to stop?

How did Joey learn to make an origami crane?

Level 3: Strategic Thinking

Mrs. Takimoto said it takes patience and practice to become an origami master. What does that mean?

Joey loves folding things and doing origami. What are some things you love?

Level 4: Extended Thinking

Joey transformed paper and napkins into origami fans, candlesticks, crowns, and cranes. Think of a



time you transformed something. Tell a partner about what you did.

Joey's feelings changed throughout the book. When he was having a hard time making origami cranes, he felt ______. When he learned how to make origami cranes, he felt ______. Think of a time when your feelings changed. What happened? Why did your feelings change? Tell partner about this.

Little Tree by Loren Long

PK.SEL.2. Recognizes self as an individual having unique abilities, characteristics, feelings and interests

Level 1: Recall

Why did Little Tree stay little when all of the other trees started to grow bigger?

Why did Little Tree finally decide to let go of his leaves?

What happened after Little Tree dropped his leaves?

Level 2: Skill/Concept

Why do you think Little Tree wanted to keep his leaves for so long?

Why do you think the animals in the forest tried to help Little Tree drop his leaves?

How do you think Little Tree felt about staying the same when all of the other trees were growing and changing?

Level 3: Strategic Thinking

If you were in the forest with Little Tree, would you try to help him drop his leaves? Why or why not?

What do you think the other trees and the animals in the forest thought about Little Tree keeping his leaves and staying the same?

Level 4: Extended Thinking

If you were going to try to help Little Tree drop his leaves what would you do? Why?

Can you think of a time when the things around you were changing but you wanted them to stay the same? What did you do?

Tell a partner about a change that made you uncomfortable or a change that made you excited.



I'm Big Now by Anthea Simmons

PK.SEL.2. Recognizes self as an individual having unique abilities, characteristics, feelings and interests

Level 1: Recall

What are some of the things the baby brother does?

What are some of the things the girl does?

Level 2: Skill/Concept

At the beginning of the book, how does the girl feel about getting big? How do you know?

How does the girl feel about getting big at the end of the book? How do you know?

Level 3: Strategic Thinking

What are some things you did when you were a baby? What are some things you do now?

How do you feel about getting bigger and growing up? Tell me more about that.

Level 4: Extended Thinking

What advice about growing up would you give to a baby? Why?

How do you think you might change and grow as you continue to get bigger? Tell me more about that.



VII. Sample Weekly Plan

On the following pages you will find a sample weekly lesson plan. Use the additional information included in the unit to create detailed weekly plans for each focus question in the unit. Plans will reflect individual schedules, students' and families' needs, school context, etc. Please note, for this unit we are introducing the daily schedule and rules development in Week Two. You may want to address one or both of these activities in Week One, depending on your children's needs.

Quick Tips for Small Group:

- 1. Use exciting language and affect to describe the small group activity.
- 2. Use hands-on materials that children are encouraged to explore.
- 3. Preview small group activities in whole group.
- 4. Link the activity to children's previous experiences

If children decline...

Have a private conversation with the child as s/he plays to understand why s/he did not want to join. Take that into consideration and adjust the small group materials to reflect the needs of the child.

Modify the small group activity so that you can do it with the materials that the child is using in the center of his/her choice.

Facilitate a conversation between the child and a friend who enjoyed the small group activity so that the hesitant child will be more likely to join.

WEEK ONE Essential Question: What is transformation and how do things change?

Focus Question: What changes around me?

Focus Vocabulary: appearance, change, date, feelings, larger, longer, narrower, objects, state, shorter, seasons, transform, transition, weather

| Week 4 | Monday | Tuesday | Wednesday | Thursday | Friday |
|------------------|---|--|---|--|--------------------------------|
| Greeting Routine | of name/picture card children to sign in (if help children who ar letters on their name to determine what to arrive, or later in the | Is for each child (laminated necessary) and continue t re ready for an additional cl card to improve accuracy o expect next and how to b day. If children seem unin | d cards with each child's pictur o encourage any mark children hallenge by adding their last n . Observe children's writing ar best support the continued dev terested in signing in in this m | e and first name, with the n make according to each ame or encouraging then nd refer to the stages of p velopment of the child. Tl anner, consider encourag | child's needs, but be ready to |



| | cards to save their structures in the Block/Construction Center | | | | |
|--|--|---|---|--|--|
| | PK.ELAL.25. [PKL.1] Demo | | nventions of academic Englis | h grammar and usage when | writing or speaking. |
| Large Group Meeting In order to reduce the amount of time that children spend in large group and ensure that children have enough time to engage in meaningful play, teachers should think strategically about other large group activities and whether they are essential to the day. | Give each child a piece of string that is about 36 inches long. Invite them to wiggle and squiggle and change the string a lot. Ask them to use their squiggly string to make a picture or design on the floor. Invite them to pair and share about what they created. After children share, ask them to change their picture. Repeat according to children's interests. Talk with children about how they changed the shape of the string into many different things. <i>PK.AL.3. Approaches</i> <i>tasks and problems with</i> <i>creativity, imagination</i> <i>and/or willingness to try</i> <i>new experience</i> | Read the foundational text <i>Maybe Something</i> <i>Beautiful</i> by F. Isabel Campoy aloud to the class. See page 50 for lesson plan and Section VI for Inquiry and Critical Thinking Questions. <i>PK.SEL.7. Adapts to</i> <i>change</i> | Read aloud the "Feelings Change" book the class created in the Literacy Small Group activity this week. Talk about children's feelings and the expressions used to illustrate them. <i>PK.SEL.1. Regulates</i> <i>responses to needs</i> , <i>feelings and events</i> | Play short audio clips of a variety of music types. Invite children to dance, changing their movements to reflect the changes in the music and the way the music makes them feel. <i>PK.ARTS.4. [DA:Cn1o- 11.PK] Connects to</i> <i>Dance</i> | Class discussion: Things around us that change. Reflect with children on the things they have experienced this week that change. Ask them to think of additional things that change. Chart their responses. <i>PK.ELAL.19. [PKSL.1]</i> <i>Participates in</i> <i>collaborative</i> <i>conversations with</i> <i>diverse peers and adults</i> <i>in small and large groups</i> <i>and during play</i> |
| Foundational Text | <i>Maybe Something</i> <i>Beautiful</i> by F. Isabel Campoy | <i>Maybe Something</i> <i>Beautiful</i> by F. Isabel Campoy | <i>Maybe Something</i> <i>Beautiful</i> by F. Isabel Campoy | <i>Maybe Something</i> <i>Beautiful</i> by F. Isabel Campoy | <i>Maybe Something</i> <i>Beautiful</i> by F. Isabel Campoy |
| Supporting Text | Benji, the Bad Day, and Me by Sally J. Pla | Another Important Book by Margaret Wise Brown | <i>I Used to be Afraid</i> by Laura Vaccaro Seegar | Small World by Ishta Mercurio | The Very Hungry Caterpillar by Eric Carle |



| Small Groups Implement at least two of the three small group activities per week. Small groups can be implemented during center time or at another time during the day. Invite 2-4 children to participate at a time. Although children are typically excited about the opportunity to work closely with a teacher, children may decline the opportunity to participate. Each small group should not exceed 10 minutes in length. Work with a couple of groups per day and spend the remainder of the time engaging with children in the interest areas. | LITERACY SMALL GROUP Ask children to think about a time they experienced a difficult or uncomfortable emotion (nervous, sad, angry, etc.). What did they do about this emotion? How did they begin to feel better (from sad to happy or frustrated to calm)? What happened to help them feel better? Record their experiences by taking pictures of the students expressing the emotions or have them draw and/or write about the experience. Collate children's "feelings change" pages into a book. <i>PK.SOC.6. Develops an</i> <i>understanding of how</i> <i>people and things change</i> <i>over time and how to</i> <i>relate past events to their</i> <i>present and future</i> <i>activities</i> Write children's initials below: Group 1: | MATH SMALL GROUP Place a small number of counters or manipulatives on a piece of paper in front of the children. Ask them to tell you how many counters there are. Add another counter to the paper. Ask the children to tell you how many counters are on the paper now. Clear the paper then repeat with other amounts of counters. Talk about how the number of counters changes as you add more to the paper. <i>PK.MATH.8. [NY- PK.OA.1.] Explores</i> <i>addition and subtraction</i> <i>by using objects, fingers,</i> <i>and responding to real</i> <i>world situations (e.g., if</i> <i>we have 3 apples and add</i> <i>two more, how many</i> <i>apples do we have all</i> <i>together?</i>) Write children's initials below: Group 1: | SMALL GROUP #3 Cooking Experience. Use a child friendly cookbook to find a recipe suitable for your classroom resources and children's interests and make the recipe together. Talk with the children about the changes that occur throughout this cooking experience. For example, "When combined, the milk and flour transformed into mush!" <i>PK.AC.3 Demonstrates understanding of what is</i> <i>observed</i> Write children's initials below: Group 1: Group 2: | Between Monday and Thursday, implement at least two of the three small group activities. Write children's initials below: Group 1: Group 2: Group 3: Group 4: Group 5: | CATCH-UP DAY Use this as an opportunity to complete small groups with children you may have missed throughout the week. Children to work with today (initials): |
|---|---|---|--|--|---|
|---|---|---|--|--|---|



| | Group 2: | Group 2: | Group 4: | | |
|--|---|-----------------------------|-------------------------------|-------------------------------|------|
| | Group 3: | Group 3: | Group 5: | | |
| | Group 4: | Group 4: | | | |
| | Group 5: | Group 5: | | | |
| Outdoors | See Section IV, Ideas for L | earning Centers. | | | |
| Lunch | Talk with children about t | he way that food changes as | s it is prepared. Share examp | oles from the children's lunc | hes. |
| Centers | See Section IV, Ideas for Learning Centers. | | | | |
| Opportunities for differentiation and integration of goals for children with IEPs | To be completed as needed by teachers. | | | | |



VIII. Student Work Samples

Below are examples of student work from activities in this unit. Note the alignment to standards and the relationship to the focus question and NYSPLS standard. Some examples may fit under more than one standard and/or focus question.

Example 1: Bridge Challenge

Activity Type: Centers

NYSPLS Standard: *PK.SCI.10.* [*K-2-ETS1-1.*] Asks questions, makes observations, and gathers information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool



"Ms. L kept making the river wider and wider since we are so good at making bridges. This one was really tough. We had to build supports on one side to make the bridge fit all the way across. It's called the River Water Bridge. We put the name in the middle."





"Hmm, that block is in the water but the bridge is only supposed to go over the water." "Now the top block is going to fall in. Gotta try something different."

"Got it!."

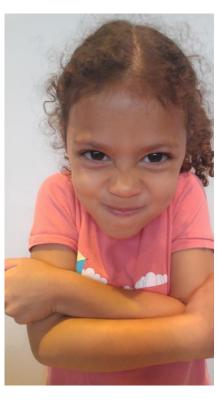






Example 2: Feelings Change Activity Type: Small Group

PK.SOC.6. Develops an understanding of how people and things change over time and how to relate past events to their present and future activities



"Sometimes I feel angry when someone pushed me."



"I take a deep breath to feel better."



IX. Supporting Resources

Teacher Texts

The Curious Kid's Science Book by Asia Citro

Good Thinking! Fostering Children's Reasoning and Problem Solving by Jessica Ick Whittaker

Getting Ready for Readiness: Helping Preschoolers Make the Transition to Kindergarten by Laura J. Colker

Physical Activity in Early Childhood: Setting the Stage for Lifelong Healthy Habits Parenting Series, April 2011

Teacher Websites

American Museum of Natural History Butterfly Conservatory: <u>www.amnh.org/calendar/the-</u> <u>butterfly-conservatory</u>

Optics4Kids: Optical Illusions http://www.optics4kids.org/home/content/illusions/

Music: Songs with Lyrics

These are common preschool songs sung by teachers throughout New York City and the world. Where possible, tunes and lyrics are included. If you don't know the tune, you can make one up that works for you or chant the words to a beat. Disclaimer: the lyrics provided are only for use by classroom teachers and are provided for the specific, non-profit educational purpose of supporting interdisciplinary learning in your classroom.

London Bridge

London Bridge is falling down, Falling down, falling down. London Bridge is falling down, My fair lady.

Build it up with iron bars, Iron bars, iron bars, Build it up with iron bars, My fair lady.

Iron bars will bend and break, Bend and break, bend and break, Iron bars will bend and break, My fair lady.

Build it up with gold and silver, Gold and silver, gold and silver, Build it up with gold and silver, My fair lady.

Hickory Dickory Dock

Hickory dickory dock, The mouse ran up the clock. The clock struck one, The mouse ran down, Hickory dickory dock.

Hickory dickory dock, The bird looked at the clock, The clock struck two, Away she flew, Hickory dickory dock.

Hickory dickory dock, The dog barked at the clock, The clock struck three, Fiddle-de-dee, Hickory dickory dock.

Hickory dickory dock, The bear slept by the clock, The clock struck four, He ran out the door, Hickory dickory dock.

Hickory dickory dock, The bee buzzed 'round the clock, The clock struck five, She went to her hive, Hickory dickory dock.



Humpty Dumpty

Humpty Dumpty sat on a wall Humpty Dumpty had a great fall All the King's horses And all the King's men Couldn't put Humpty together again

Additional Song Titles

I'm a Little Teapot A Peanut Sat on a Railroad Track Alice the Camel Apples and Bananas Baby Bumblebee Bed in Summer If All the Raindrops Ten in a Bed

Shake My Sillies Out Peanut Butter and Jelly I Wonder if I'm Growing The Story of my Feelings



X. Foundational Learning Experiences: Lesson Plans

Documentation: Based on the Focus Question, Objective, and Focus Standard as well as the Authentic Assessment items, teachers will determine what they hope to see children do in an activity. They should take notes as children are working to record the skills and growth children demonstrate. For the lesson plans included in this unit, a note-taking form is included. Please note the NYSPLS standards and assessment items listed in each lesson plan. Keep in mind that you may be addressing additional assessment items and standards.

Lesson: Maybe Something Beautiful by F. Isabel Campoy

Type: Large Group Activity

| Unit of Study: Transformation | Focus Question: What changes around me? | | | | |
|--|---|--|--|--|--|
| Objective: Children will consider some of their feelings and interests. | | | | | |
| NYSPLS Focus Standard: PK.SEL.2. Recognizes self as an individual having unique abilities, characteristics, feelings and interests Additional NYSPLS Standards: PK.SCI.5. [P-LS1-2.] Participates in investigations to determine how familiar plants and/or animals use their external parts to help them survive in the environment | Link to Authentic Assessment Systems WSS:I.D.4: Identifies some feelings and responds to those of others TSG:29: Demonstrates knowledge about self COR:D: Emotions | | | | |
| Materials: <i>Little Tree</i> by Loren Long Procedure: | Vocabulary: change , feelings Additional vocabulary related to the text: beautiful, canvas, joy, muralist | | | | |
| Hook: Show children the cover of the book. Beginning: Share the title of the book. | | | | | |



Share the author's name as well as the illustrator's name.

Ask the children what they think this book is about.

Middle:

Read the book to the children.

Pause throughout the book to ask a few of the questions suggested in Section VI and to answer questions children may have about the book.

End:

Have children briefly summarize the story.

Ask any additional questions from Section VI as applicable.

Assessment: What did the child share about their feelings and interests?

Differentiation: Consider multiple entry points for all children to be successful. How do I/we plan to meet individual student needs? For example, repeat directions, extend time, adapt materials, preview questions, and provide 1:1 support.

For children who need additional support: Consider inviting these children to sit next to a teacher or have an active task in the reading such as turning the pages as you read.

For children who are ready for a challenge: Invite these children to read the book independently or read aloud to a friend.

Children with IEPs: How will I incorporate individual children's IEP goals into this lesson? What specific accommodations or modifications will I make? How will I collaborate with SEIT and/or related service providers?

Teacher Tip: Have this book available in the classroom library for children to revisit on their own.

Teacher Reflection: What went well? Why? What will I do differently given what I have learned from observing children during this activity? Which children needed differentiation during this activity and how will I meet their needs moving forward?



Assessment Opportunity

Read Aloud Experience: *Little Tree* by Loren Long

NYSPLS Focus Standard: *PK.SEL.2. Recognizes self as an individual having unique abilities, characteristics,*

feelings and interests

Authentic Assessment Alignment: WSS:I.D.4: Identifies some feelings and responds to those of others TSG:29: Demonstrates knowledge about self COR:D: Emotions

| What did the child share about their feelings and interests? | Notes |
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| | What did the child share about their feelings and interests? Image: State of the st |



| Child's name | What did the child share about their feelings and interests? | Notes |
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Lesson: Paper Making

Type: Learning Centers

| Focus Question: How can objects change? | | | | |
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| Objective: Children will understand that materials can be recycled and used to make new materials. | | | | |
| Link to Authentic Assessment Systems: | | | | |
| WSS:IV.B.1: Explores the properties of objects and materials, and how they change. | | | | |
| TSG:26: Demonstrates knowledge of the physical properties of objects and materials | | | | |
| COR:DD: Natural and physical world | | | | |
| Vocabulary: after, combine, continue, evaporate, liquid, newer, older, purpose, recycle, repurpose, reuse, solid | | | | |
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Procedure:

Hook: Share the book, We Recycle by Torrey Maloof or another book about recycling. Ask the children what they know about recycling.

Beginning:

Invite the children to share some of their thoughts or ideas about recycling and why recycling is important. Highlight the fact that people throw away a lot of garbage and one way to manage large amounts of garbage is to recycle, or make new things from old things.

Share that the class is going to do a recycling project together. You are going to use old pieces of paper to make new paper.

Middle:

Fill the sensory table with ripped or shredded paper. Most of the paper should be previously ripped or shredded but children can continue to rip the paper in the sensory table.



Add water to the paper in the sensory table and invite children to continue to rip the paper and to scoop, mix, pour and mash until a mush, or pulp, is formed.

If available, use a blender to create a finer pulp.

Cover a mesh screen with pulp and allow the water to drain from the pulp through the screen.

Use a sponge to press out additional water.

Place a piece of white felt or cloth on top of the pulp to press out any remaining water.

Leave the felt on the pulp then turn the screen over and place on a flat surface.

The wet paper should fall off the screen and onto the felt.

Place the wet paper in sunny place (if possible) to dry. It will take about 24 hours for the paper to dry.

End:

After the paper is dry talk with the children about the new piece of paper. What do they notice? How has the old paper changed? How does recycling, or changing old materials into something new, help to take care of the world? How do the children cause the change in this activity?

Assessment: What does the child say or do to demonstrate understanding that materials can be recycled?

Differentiation: Consider multiple entry points for all children to be successful. How do I/we plan to meet individual student needs? For example, repeat directions, extend time, adapt materials, preview questions, and provide 1:1 support.

For children who need additional support: Provide pictures or drawings of each step of the paper making process. Point or provide other visual cues to show children each step as they are working through the process.

For children who are ready for a challenge: Ask these children if they think this is how all recycled paper is made. Encourage additional research in books or on a computer about large-scale recycling.

Children with IEPs: How will I incorporate individual children's IEP goals into this lesson? What specific accommodations or modifications will I make? How will I collaborate with SEIT and/or related service providers?

Teacher Tip: Consider asking families to collect and send old newspapers and pieces of paper to school for this activity.

Using finer pulp will create paper that is sturdier than paper created from coarse pulp.

Use words such as *purpose*, *repurpose*, and *recycle* frequently throughout the activity.



Teacher Reflection: What went well? Why? What will I do differently, given what I have learned from observing children during this activity? Which children needed differentiation during this activity and how will I meet their needs moving forward?



Assessment Opportunity

Learning Centers: Paper Making

NYSPLS Focus Standard

PK.SCI.10. [*K-2-ETS1-1.*] Asks questions, makes observations, and gathers information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool

Authentic Assessment Alignment

WSS:IV.B.1: Explores the properties of objects and materials, and how they change. TSG:26: Demonstrates knowledge of the physical properties of objects and materials COR:DD: Natural and physical world

| Child's name | What does the child say or do to demonstrate understanding that materials can be recycled? | Notes |
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| Child's name | What does the child say or do to demonstrate understanding that materials can be recycled? | Notes |
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Lesson: Metamorphosis Dance

Type: Whole Group Activity

| Unit of Study: Transformation | Focus Question: What kinds of change happen in nature? | | | |
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| Objective: Children will demonstrate their knowledge of metamorphosis through creative movement. | | | | |
| NYSPLS Focus Standard: | Link to Authentic Assessment Systems: | | | |
| PK.ARTS.4. [DA:Cn10-11.PK] Connects to Dance | WSS:VI.A.2: Participates in creative movement, dance and drama | | | |
| Additional NYSPLS Standard: | TSG:35: Explores dance and movement concepts | | | |
| PK.ARTS.1. [DA:Cr1-3.PK] Creates Dance | COR:Z: Movement | | | |
| Materials: book about metamorphosis, chart paper, writing utensil | Vocabulary: birth, butterfly, caterpillar, chrysalis, cocoon, cycle, egg, larva, life cycle metamorphosis, pupa | | | |

Procedure:

Hook: Read a book about metamorphosis (ex. The Very Hungry Caterpillar by Eric Carle) to the class.

Beginning:

Invite children to create a list of words that describe each of the four phases of metamorphosis: Egg, caterpillar, pupa, adult. Record the lists on chart paper under those four headings.

Share with the children that you would like to select one word from each list. Invite them to share their suggestions or pick words for them. You should end up with four words (ex. hatch, feast, nap, beautiful).

Middle:

Invite children to use their bodies to represent these words. Share that you would like them to create a movement for each word.

Allow children to decide if they would like to be performers and participate in a dance or be members of the audience. Share that you can repeat the activity until everyone has a turn to be a performer and an audience member if they would like.

After children have decided on a role, play music and invite the performers to share their first movement. Children can repeat the movement several times until you signal they should change to the next movement.

Repeat until children have demonstrated each word.



End:

Switch roles (performer and audience) if the children desire.

Recap some of the movements children demonstrated, and invite the children to reflect on the performances.

Assessment: What movements does the child use to demonstrate various phases of metamorphosis? How are their movements related to the vocabulary generated during the activity?

Differentiation: Consider multiple entry points for all children to be successful. How do I/we plan to meet individual student needs? For example, repeat directions, extend time, adapt materials, preview questions, and provide 1:1 support.

For children who need additional support: Some children may feel uncomfortable being performers. Allow these children to participate in the activity as audience members.

For children who are ready for a challenge: Encourage children to represent the four stages of metamorphosis through another art form such as music or painting.

Children with IEPs: How will I incorporate individual children's IEP goals into this lesson? What specific accommodations or modifications will I make? How will I collaborate with SEIT and/or related service providers?

Teacher Tip:

Some children may be more comfortable doing this activity in a small group while others may prefer participating in a whole group format. This activity can be implemented as a whole group or a small group experience.

This activity can lead to many other experiences: theater, musical composition, painting, etc.

Teacher Reflection: What went well? Why? What will I do differently, given what I have learned from observing children during this activity? Which children needed differentiation during this activity and how will I meet their needs moving forward?



| Assessment Opportunity | | NYSPLS Focus Standard | | |
|--|--|---|-------|--|
| Large Group Experience: Metamorphosis Dance | | PK.ARTS.4. [DA:Cn10-11.PK] Connects to Dance | | |
| | | Authentic Assessment Alignment WSS:VI.A.2: Participates in creative movement, dance and drama TSG:35: Explores dance and movement concepts COR:Z: Movement | | |
| What movements does the child use to demons metamorphosis? How are their movements related Child's name during the activity? | | | Notes | |
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| Child's name | What movements does the child use to demonstrate various phases of metamorphosis? How are their movements related to the vocabulary generated during the activity? | Notes |
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Lesson: Now and Later

Type: Small Group Activity

| Unit of Study: Transformation | Focus Question: How will I continue to change and grow? | |
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| Objective: Children will consider how people change over time. | | |
| NYSPLS Focus Standard: PK.SOC.6. Develops an understanding of how people and things change over | Link to Authentic Assessment Systems: | |
| time and how to relate past events to their present and future activities | WSS: N/A | |
| Additional NYSPLS Standard: | TSG:3.1: Explores change related to familiar people or places. | |
| PK.SEL.2. Recognizes self as an individual having unique abilities, characteristics, feelings and interests | COR:HH: History | |
| Materials: paper, writing utensils, children's "Now and Then" charts from Unit 9: Babies | Vocabulary: experience, independent, learn, responsible | |

Procedure:

Hook: Reflect with children on the Now and Then activity from Unit 9: Babies. Share some of the things children did when they were babies and do differently now.

Beginning:

If possible, add a third section to the "Then and Now," pieces that the children made: "Later." If it is not possible to return to the other activity, fold a piece of paper in half, title one side "Now" and the other "Later."

Middle:

Talk with children about the things they can do now and the things they would like to do when they are older.

Prompt children to express their ideas with sentence starters: Now I_____, but when I'm older I will _____. Model with an example: "Now I ride the train with my family, but when I'm older I will be able to ride by myself."

Write children's responses on the paper or invite them to do their own writing and/or drawing; help them pay special attention to the sounds they hear in the words.

End:

Summarize the children's responses; celebrate how they have grown and changed and how they will continue to change, as they grow older.



Assessment: What was the child able to describe about how they will continue to grow in the future?

Differentiation: Consider multiple entry points for all children to be successful. How do I/we plan to meet individual student needs? For example, repeat directions, extend time, adapt materials, preview questions, and provide 1:1 support

For children who need additional support: Provide multiple entry points to the activity through supports such as playing a video of a child riding a tricycle or sharing a picture of a child holding an adult's hand when crossing the street.

For children who are ready for a challenge: Invite these children to add illustrations to their "Now and Later" charts.

Children with IEPs: How will I incorporate individual children's IEP goals into this lesson? What specific accommodations or modifications will I make? How will I collaborate with SEIT and/or related service providers?

Teacher Tip:

Help children consider how they will grow and develop and what ways they will change as they grow. Avoid asking children what they want to be when they grow up.

Extend this activity in the small group or at different time by asking children what about them stays the same and will not change.

Keep in mind that some children may describe ideas that are informed by their imagination, such as "I want to fly like Superman." Accept all ideas that children generate.

Teacher Reflection: What went well? Why? What will I do differently given what I have learned from observing children during this activity? Which children needed differentiation during this activity and how will I meet their needs moving forward?



Assessment Opportunity

Small Group Experience: Now and Later

NYSPLS Focus Standard

PK.SOC.6. Develops an understanding of how people and things change over time and how to relate past events to their present and future activities

Authentic Assessment Alignment WSS: N/A TSG:3.1: Explores change related to familiar people or places. COR:HH: History

| Child's name | What was the child able to describe about how they will continue to grow in the future? | Notes |
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| Child's name | What was the child able to describe about how they will continue to grow in the future? | Notes |
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XI. Appendices

Appendix A: Child Homemade Ice Cream

When cooking with children in the classroom be sure to include recipes that children can follow. Use words, symbols and pictures to help develop children's emerging literacy skills. Read the recipe and point to each step with the children as you lead the cooking experience.

PK.CLL.1 (Reading Standards: Foundational Skills): Demonstrate understanding of the organization and basic features of print.

Ingredients:

2 tablespoons sugar 1 cup half and half or light cream (dairy-free options such as soy milk and almond milk also work, but will yield a softer ice cream) 1/2 tsp vanilla extract 1/2 cup salt Ice Gallon-sized zipper bag Pint-sized zipper bag

Directions:

- 1. Mix sugar, half and half and vanilla extract together in a bowl.
- 2. Pour mixture into a pint-sized zipper bag and seal tightly.
- 3. Fill the gallon-sized zipper bag half full with ice.
- 4. Pour the salt over the ice.
- 5. Place the pint-sized bag inside the gallon-sized bag and seal tightly.
- 6. Shake the gallon-sized bag for approximately five minutes or until the ice cream is formed (play music while you do this!).
- 7. Remove the pint-sized bag from the gallon-sized bag. Rinse the salt from the small bag.
- 8. Grab a spoon, open pint-sized bag and enjoy right from the bag!

This recipe produces one pint-sized bag of ice cream.



Appendix B: Sample Goodbye Book

Luz's Goodbye Book (picture of child)

Page 1: Dear Luz, You had a great year in pre-K! (work sample)

Page 2: You had so much fun this year and learned a lot! You did experiments with snow, rocks and sticks. (photo of experiment)

Page 3: You got better at talking to your friends and solving problems. Now you take deep breaths and use your words when you are upset.

(work sample)

Page 4: You are older now and it is time to say goodbye to pre-K. You might miss your classroom, friends and teachers. You might feel a little bit excited and a little bit sad. (photo of sad and happy face)

Page 5: This summer you will have lots of fun!

You will play outside and spend time with your family and friends. (photo of nearby park) **Page 6**: In September, you will start Kindergarten and meet new friends. You might feel nervous at first, as you did when you started pre-K, but you are ready to learn and play in a new classroom. (drawing or photo of child with friends)

Page 7: This is a picture of your new school. They have blocks, drawing, books and science just like pre-K. (photo of new school)

Page 8: Your family will take care of you and help you as you leave pre-K and start Kindergarten.

You can remember pre-K when you look at this book. We will miss you! Love, Ms. Carla and Mr. Eric (drawing or picture of family)