

Preschool Through Third Grade (P–3) Learning Progressions

Table View



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P–3 Learning Progressions Table View

This document provides a tables-only view of the *Preschool Through Third Grade (P–3) Learning Progressions* in all domains. For the full version of the P–3 Learning Progressions in each domain, including domain introductions, teaching practices, and in-practice examples, go to [Preschool through Third Grade \(P-3\) Alignment](#).

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Key Area 1: Engaged Learners

Learning Progression 1.1: Maintaining Engagement

Preschool/Transitional Kindergarten Learning Foundations		K–3 Approaches to Learning Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
PTK.Early.1.3. Actively engage by focusing and concentrating on activities for brief periods of time with adult support . <i>Approximately 3–12 minutes.</i>	PTK.Later.1.3. Actively engage by focusing and concentrating on activities for longer periods of time with less adult support . <i>Approximately 8–20 minutes.</i>	Focus and concentrate in more structured environments (such as educator-led activities and longer content blocks) for <i>approximately 15–30 minutes</i> . Engage in a range of structured activities such as class projects and small-group and individual activities, including those they find less interesting or enjoyable, with some adult support .	Focus and concentrate in more structured environments (such as educator-led activities and longer content blocks with more complex tasks) for <i>approximately 20–35 minutes</i> . Engage more deeply in a range of structured activities such as class projects and small-group and individual activities, including those they find less interesting or enjoyable, with greater independence and adult support as needed .

Most children’s capability to sustain attention grows as they get older. However, at any age, children may experience momentary distractions or mental breaks when focusing on a task. In addition, the amount of time a child can engage in an activity will vary based on *what* they are engaged in (such as, is it an interesting or relevant or relatable topic? Is the educator enthusiastic about the activity or topic?) and *how* they are engaged (such as, is the activity hands-on and challenging? Is it well-scaffolded?). When activities or tasks are appropriately challenging, children are more interested and motivated to engage and persist. Children are more likely to disengage when activities are too challenging or too easy. It is also important to keep in mind that children vary in their interests, so not all children will engage in an activity in the same way.

Learning Progression 1.2: Managing Distractions

Preschool/Transitional Kindergarten Learning Foundations		K–3 Approaches to Learning Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
PTK.Early.2.3. Demonstrate an emerging ability to ignore distractions and interruptions during independent or group activities; however, often need adult support to manage attention when distracted or interrupted.	PTK.Later.2.3. Demonstrate an emerging ability to ignore distractions and interruptions during independent or group activities with less adult support .	Ignore distractions and re-engage on tasks during independent or group school activities (for example, less often will require reminders from adults to stay on task) with some adult support .	Self-manage to ignore distractions and reengage on tasks during independent or group school activities (for example, ask for headphones during a computer activity when sitting next to a chatty peer) with adult support as needed .

Learning Progression 1.3: Managing Impulsive Behaviors

Preschool/Transitional Kindergarten Learning Foundations		K–3 Approaches to Learning Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
PTK.Early.2.2. Demonstrate emerging ability to manage habitual reactions (habits that are not useful in a particular context), impulsive behaviors (acting on a whim), and delaying gratification (resisting temptation for an instant reward) with adult support (for example, when reminded they raise their hand to share during story time).	PTK.Later.2.2. Manage habitual reactions (habits that are not useful in a particular context), impulsive behaviors (acting on a whim), and delaying gratification (resisting temptation for an instant reward) with less adult support (for example, raises their hand to share thoughts about a story during story time).	Manage habitual reactions, impulsive behaviors, and delaying gratification when adapting to new demands in the school environment (such as follow school and classroom expectations) with some adult support .	Manage habitual reactions, impulsive behaviors, and delaying gratification when adapting to new demands in the school environment (for example, take breaks while solving a difficult problem, can be an effective mediator in peer conflict) with greater independence and adult support as needed .

Key Area 2: Motivated Learners

Learning Progression 2.1: Curiosity

Preschool/Transitional Kindergarten Learning Foundations		K–3 Approaches to Learning Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
PTK.Early.1.1. Express interest in some familiar and new objects, people, and activities in their immediate environment. Seek information by exploring with their senses and asking simple questions .	PTK.Later.1.1. Express interest in a broader range of familiar and new objects, people, and activities by exploring more extensively with their senses and asking more detailed questions .	Expand on their interests by exploring a range of activities, materials, resources (for example, books). Ask more complex questions to gather information about a topic or understand others' reasoning or the cause of an event.	Pursue self-directed interests by seeking information about a topic of interest or begin to gain mastery in a topic of interest (for example, practicing for the spelling bee). Ask higher-order questions to analyze and evaluate information . Refer to sources of information to find evidence to answer their questions.

Learning Progression 2.2: Initiative in Learning

Preschool/Transitional Kindergarten Learning Foundations		K–3 Approaches to Learning Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
PTK.Early.1.2. Demonstrate initiative by attempting to independently start activities (such as simple play scenarios), initiate social interactions (such as helping others), and seek solutions to problems.	PTK.Later.1.2. Demonstrate initiative by more independently starting activities (such as detailed and more complex play scenarios), initiating social interactions (such as helping others), and seeking solutions to problems more persistently .	<p>Take initiative in planning and completing class projects and activities of interest (for example, designs and constructs a marble run with peers and an educator) with some adult support.</p> <p>Initiate positive interactions with peers (such as organizing games with advanced rules or providing emotional support) and resolve conflicts with peers, with some adult support.</p> <p>Take initiative in offering and explaining reasonable solutions to problems with some adult support.</p>	<p>Take initiative in planning and completing more complex class projects and activities of their own interest (for example, design and construct a model of an amusement park with a partner) with greater independence and adult support as needed.</p> <p>Initiate positive interactions with peers (such as expressing caring for their friend's feeling and sharing interests) and resolve conflicts with peers with greater independence and adult support as needed.</p> <p>Take initiative in offering and explaining reasonable solutions to more complex problems with greater independence and adult support as needed.</p>

Learning Progression 2.3: Persisting Through Challenges

Preschool/Transitional Kindergarten Learning Foundations		K–3 Approaches to Learning Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
PTK.Early.1.4. Demonstrate persistence, with adult support, when engaging in an activity despite encountering setbacks or boredom. Make an effort, with adult support, to cope with emotions that arise (for instance, frustration, sadness, anger, excitement) although may shift to another activity after a short while.	PTK.Later.1.4. Demonstrate persistence for longer periods of time when engaging in an activity despite encountering setbacks or boredom. More consistently cope with emotions that arise (for instance, frustration, anger, sadness, excitement) and can continue engaging in an activity with less adult support (for example, works on an art project over two days despite setbacks, like having to repaint an area and waiting for it to dry.	Persist through challenges and frustrations by using effective coping strategies (such as pausing and breathing or finding effective ways to communicate how they feel) with some adult support.	Use effective coping strategies (such as articulating thoughts and feelings more explicitly instead of lashing out) to persist through challenges and frustrations with greater independence and adult support as needed.

Key Area 3: Flexible Problem Solvers

Learning Progression 3.1: Working Memory and Planning

Preschool/Transitional Kindergarten Learning Foundations		K–3 Approaches to Learning Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
<p>PTK.Early.2.1. Hold approximately one to two pieces of information in mind for a short time and use it to guide behavior when performing tasks and engaging in play, with adult support.</p> <p>PTK.Early.3.1. Demonstrate emerging ability to set and carry out simple goals (for example, one- to two-step plans and goals), with adult support. (For example, gathers materials needed to make an animal habitat of their choice, such as leaves, toy animals, and dirt, but needs to be reminded to get a shoebox to place the habitat in.)</p>	<p>PTK.Later.2.1. Hold approximately two to three pieces of information in mind for longer periods of time and use it to guide behavior when engaging in multistep tasks and complex play, with less adult support.</p> <p>PTK.Later.3.1. Demonstrate ability to set and carry out more complex plans (for example, two- to three-step plans and goals), with less adult support. (For example, gathers string, beads, and a plate to build a necklace.)</p>	<p>Hold information in mind and can use it to make and follow short-term, multistep tasks and activities (for example, projects that extend over a few days) with some adult support.</p> <p>Develop plans (including written plans) with strategies and expected results with some adult support.</p>	<p>Hold more complex information in mind and can use it to make and follow long-term, multistep tasks and activities (for example, projects that extend over a few weeks or months) with greater independence and adult support as needed.</p> <p>Develop plans (including written plans) with strategies and expected results with greater independence and adult support as needed.</p>

Learning Progression 3.2: Flexibility

Preschool/Transitional Kindergarten Learning Foundations		K–3 Approaches to Learning Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
<p>PTK.Early.3.2. Make attempts to adjust a problem-solving approach or strategy by reflecting on and analyzing their current approach, with adult support. (For example, builds a marble run and with adult help shifts the incline to see if it changes how far the marbles go.)</p> <p>PTK.Early.2.4. Demonstrate emerging ability to shift their behavior and think about things in a new way, with adult support.</p>	<p>PTK.Later.3.2. Make attempts to adjust a problem-solving approach or strategy by reflecting on and analyzing their current approach, with less adult support. (For example, plays with a ball maze toy and adjusts it one way and then another in order to get the ball through the maze.)</p> <p>PTK.Later.2.4. More consistently shift their behavior and think about things in a new way, with less adult support.</p>	<p>Evaluate and modify approaches or strategies to problems by noticing mistakes or alternative solutions with some adult support.</p> <p>Consider relevant resources (for example, books) and prior experiences when shifting behavior and thinking about things in a new way with some adult support.</p>	<p>Evaluate and modify approaches or strategies to more complex problems by noticing mistakes or alternative solutions with greater independence and adult support as needed.</p> <p>Consider a greater variety of relevant resources (for example, informational texts or online resources) and prior experiences when shifting behavior and thinking about things in a new way with greater independence and adult support as needed.</p>

Learning Progression 3.3: Collaborative Problem-Solving

Preschool/Transitional Kindergarten Learning Foundations		K–3 Approaches to Learning Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
<p>PTK.Early.3.3. Collaborate with peers in problem-solving during play and learning activities, sometimes for a short amount of time and sometimes longer.</p> <p>PTK.Early.3.4. Notice, with adult support, that others have different approaches and preferences although often have difficulty accepting others' approaches or preferences.</p>	<p>PTK.Later.3.3. Engage in extended collaborative problem-solving during play and learning activities. Communicate with peers about how to solve a problem and help peers when needed.</p> <p>PTK.Later.3.4. Demonstrate understanding and explain that others can have different approaches and preferences and more consistently accept others' approaches and preferences, with less adult support.</p>	<p>Engage collaboratively with peers and educators in learning activities, problem-solving, and play by communicating effectively, respecting others' opinions, and comparing different viewpoints.</p> <p>Respond proactively to constructive feedback (for example, attempting to incorporate suggested feedback and not letting feedback set them back) and provide feedback to peers with some adult support.</p>	<p>Engage collaboratively with peers and educators in learning activities, problem-solving, and play by being able to delegate various tasks and explain why they may favor one approach over another.</p> <p>Respond proactively to constructive feedback (for example, ask clarifying questions about specific suggestions they receive) and provide feedback to peers with greater independence and adult support as needed.</p>

Key Area 1: Self-Awareness and Self-Management

Learning Progression 1.1: Self-Awareness: Identity

Preschool/Transitional Kindergarten Learning Foundations		K–3 Social and Emotional Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
<p>PTK.Early.1.1. Notice and communicate the characteristics of their physical appearance related to specific identities (for example, gender, race, ethnicity). Demonstrate emerging preferences for specific activities (for example, what to play, how to dress).</p>	<p>PTK.Later.1.1. Express their personal identity (for example, gender, race, or ethnicity), including a sense of pride in their identity, and communicate preferences of their appearance or activities they enjoy (for example, sharing their family’s practices or their own preferences).</p>	<p>Continue to express their personal identity, including a sense of pride in their identity, and communicate preferences of their appearance or activities they enjoy.</p> <p>Describe themselves as an individual and as a member of social groups.</p>	<p>Express and develop their personal identity in a variety of ways, including a sense of pride in their identity, and communicate preferences of their appearance or activities they enjoy with increased assertion.</p> <p>Express a sense of belonging and recognize their role in social groups (e.g., national identities).</p> <p>Communicate about practices and values of their social group with adult support (e.g., folklore traditions of Native nations and tribal communities).</p> <p>Recognize the heritage and history of their own social group with adult support.</p>

Learning Progression 1.2: Self-Awareness: Confidence in Abilities

Preschool/Transitional Kindergarten Learning Foundations		K–3 Social and Emotional Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
<p>PTK.Early.1.2. Describe their abilities positively and enjoy demonstrating them. Communicate the desire to be viewed positively by familiar adults, including educators.</p>	<p>PTK.Later.1.2. Express confidence in their abilities and describe their strengths, including reference to past abilities. Continue to be sensitive to how they are viewed by peers and familiar adults, including educators.</p>	<p>Demonstrate a positive sense of their abilities by expressing pride in their achievements or their community’s achievements and performance in ways that align with how pride is expressed in their culture.</p> <p>Identify strengths and skills they are still learning.</p> <p>Demonstrate optimism and confidence in approaching novel experiences with adult support.</p>	<p>Express deeper awareness, pride, and confidence in their personal strengths and performance across a range of abilities (for example, academic subjects) and in ways that align with cultural forms of expression.</p> <p>Identify mistakes as opportunities to learn, even when it may be uncomfortable.</p> <p>Demonstrate patience with challenges, such as personal limitations or mistakes.</p> <p>Make accurate self-assessments and appraisals.</p>

Learning Progression 1.3: Self-Management: Emotional Knowledge

Preschool/Transitional Kindergarten Learning Foundations		K–3 Social and Emotional Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
<p>PTK.Early.1.3. Identify basic emotions (for example, happy, sad, surprised) and recognize emotional expressions in self and others.</p>	<p>PTK.Later.1.3. Identify basic and complex emotions (for example, embarrassment or pride) and recognize emotional expressions in self and others. Demonstrate increasing understanding of different ways of expressing emotions and related behaviors for themselves and others.</p>	<p>Communicate about and express their emotions in a range of ways that follow expectations of the school setting with adult support.</p> <p>Explain ways in which their emotions impact their behavior and how their behaviors affect other people’s feelings, with adult support.</p> <p>Express how basic and complex emotions feel in the body with adult support.</p>	<p>Communicate with more precision (for example, by using advanced vocabulary) about the connections between their emotions and behavior, including facial expressions and body language.</p> <p>Demonstrate awareness that people can experience more than one emotion at the same time.</p> <p>Express the level of emotions they feel and describe how their bodies feel when experiencing specific emotions with adult support.</p> <p>Express challenging emotions or high levels of emotional arousal (for example, love or loss) in a way that follows expectations of the school setting.</p>

Learning Progression 1.4: Self-Management: Regulating Emotions, Behaviors, and Stress

Preschool/Transitional Kindergarten Learning Foundations		K–3 Social and Emotional Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
PTK.Early.1.4. Make efforts to regulate their emotions and behaviors and cope with stress with adult support .	PTK.Later.1.4. Regulate emotions and behaviors and demonstrate strategies to cope with emotions and behaviors caused by stress with some adult support .	<p>Identify simple strategies (for example, belly breathing) to regulate their emotions, feelings of activation or emotional arousal, and behaviors with less adult support.</p> <p>Seek help from trusted adults when they need help regulating their emotions or feel overwhelmed.</p>	<p>Regulate emotions in more challenging situations (for example, during longer periods of independent work) in alignment with expectations of the school setting.</p> <p>Identify specific strategies for self-management and dealing with stress or activating situations (for example, pulling away from the situation).</p>

Learning Progression 1.5: Self-Management: Managing Routines and Transitions

Preschool/Transitional Kindergarten Learning Foundations		K–3 Social and Emotional Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
PTK.Early.1.5. Manage routines and transitions between settings (for example, from home to childcare) or activities (for example, from playtime to story time) with adult support .	PTK.Later.1.5. Anticipate routines and manage transitions between settings (for example, from home to school) or activities (for example, from snack time to small-group activities) with some adult support .	Anticipate structured classroom routines and manage transitions throughout the school day and between contexts (for example, whole group to small group, recess back to classroom) with some adult support . Manage emotions and behaviors during classroom routines and transitions with some adult support .	Follow structured classroom routines and manage transitions throughout the school day and between contexts. Manage emotions and behaviors during increasing amounts of independent work time involving various classroom routines and transitions.

Key Area 2: Social Awareness

Learning Progression 2.1: Awareness of Similarities and Differences Across People

Preschool/Transitional Kindergarten Learning Foundations		K–3 Social and Emotional Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
PTK.Early.1.6. Demonstrate awareness and interest in how people are similar and different.	PTK.Later.1.6. Make comparisons between themselves and others and express beliefs about themselves and others based on perceived similarities and differences.	<p>Demonstrate respect for other people’s identities and beliefs with adult support.</p> <p>Describe similarities and differences between people and the groups they belong to (for example, differences in communication, customs, traditions).</p> <p>Express appreciation for diversity in the qualities of people and the groups they belong to.</p> <p>Rely on adults to acknowledge judgments about people based on bias, explain how stereotypes can be hurtful, and discuss the significance of diversity.</p> <p>Rely on adults to learn about racism and how it impacts others.</p>	<p>Express respectful curiosity about the personal history, contributions, and experiences of others and exchange ideas and beliefs in group activities and projects with adult support.</p> <p>Communicate about similarities and differences in identity between themselves and others with greater precision.</p> <p>Express appreciation for diversity in others in group interactions (for example, activities and projects).</p> <p>Demonstrate awareness of personal biases in considering others’ perspectives and backgrounds (for example, understanding that “two parent family” does not</p>

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Learning Progression 2.1: Awareness of Similarities and Differences Across People

Preschool/Transitional Kindergarten Learning Foundations		K–3 Social and Emotional Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
			<p>automatically mean a mom and dad after a peer shares a story about their two moms) when working with others in group activities and projects with adult support.</p> <p>Demonstrate awareness of racism (for example, calling out racism), how racism works in the world, and how racism impacts others with adult support.</p> <p>Identify contributions of various cultural groups to the community and society with adult support.</p>

Learning Progression 2.2: Understanding Other People’s Thoughts, Behaviors, and Experiences

Preschool/Transitional Kindergarten Learning Foundations		K–3 Social and Emotional Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
PTK.Early.1.7. Develop understanding that others have unique thoughts, behaviors, and experiences.	PTK.Later.1.7. Demonstrate emerging understanding of the mental and psychological reasons people act as they do and how these reasons contribute to differences in how people act or behave.	<p>Describe thoughts, perspectives, and recognize the strengths of others.</p> <p>Demonstrate understanding that people may behave or react differently in the same situation.</p>	<p>Interpret actions and behaviors of others (including verbal and nonverbal social cues) with accuracy and respond appropriately.</p> <p>Demonstrate acceptance of contrasting beliefs and perspectives as well as awareness of context informing varying perspectives when working with others in group activities and projects with adult support.</p>

Learning Progression 2.3: Empathy and Caring

Preschool/Transitional Kindergarten Learning Foundations		K–3 Social and Emotional Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
PTK.Early.1.8. Demonstrate empathy by sharing the emotional experiences of others and showing concern for the needs of others in distress.	PTK.Later.1.8. Respond to others’ distress and needs with sympathetic caring and assistance by comforting and helping others, although occasionally require support from an adult to assist.	Respond to other people’s distress and needs with sympathetic caring, comforting, and helping with less adult support.	More consistently attend to others when they seem hurt or upset by comforting and identifying supports based on what others need.

Key Area 3: Relationship Skills

Learning Progression 3.1: Interactions and Relationships with Adults

Preschool/Transitional Kindergarten Learning Foundations		K–3 Social and Emotional Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
<p>PTK.Early.2.1. Engage in positive interactions with familiar adults, especially in familiar settings. Demonstrate an emerging ability to initiate social interaction with familiar adults.</p> <p>PTK.Early.2.2. Seek security and support (for example, help or comfort) from their attachment figures (adults in children’s lives who are caregivers, which may include educators) to address their needs, especially in difficult situations.</p>	<p>PTK.Later.2.1. Take greater initiative and participate in more reciprocal interactions with familiar adults (for example, initiate a conversation, suggest a shared activity, or ask for assistance).</p> <p>PTK.Later.2.2. Anticipate when they need support and take greater initiative in seeking support (for example, help or comfort) from their attachment figures (adults in children’s lives who are caregivers, which may include educators) to address their needs, especially in difficult situations.</p>	<p>Participate in reciprocal interactions with adults during activities initiated by the child or adult (such as interacting with an adult during centers or group reading).</p> <p>Contribute to positive mutual relationships with adults by communicating clearly about their feelings, needs, and interests. Express interest in adult’s feelings, preferences, or well-being.</p> <p>Continue to seek support as needed to contribute to their overall safety and well-being, especially in difficult situations.</p>	<p>Participate in reciprocal interactions with adults for a longer time, engaging in more complex small-group or whole-group shared activities and discussions.</p> <p>Continue to develop positive mutual relationships with adults by communicating clearly about feelings, needs, and interests. Express interest in adult’s feelings, preferences, or well-being.</p> <p>Seek support from trusted adults for a range of needs related to their academic learning, well-being, and safety, including sensitive situations such as bullying.</p>

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Learning Progression 3.1: Interactions and Relationships with Adults

Preschool/Transitional Kindergarten Learning Foundations		K–3 Social and Emotional Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
PTK.Early.2.4. Contribute to maintaining positive relationships with attachment figures (adults in children’s lives who are caregivers, which may include educators) and familiar adults. Show emerging awareness of the adults’ feelings, preferences, and well-being.	PTK.Later.2.4. Contribute to positive mutual relationships and cooperation with attachment figures (adults in children’s lives who are caregivers, which may include educators) and familiar adults. Show interest in the adults’ feelings, preferences, and well-being.		

Learning Progression 3.2: Interactions and Relationships with Peers: Collaborative Interactions with Peers

Preschool/Transitional Kindergarten Learning Foundations		K–3 Social and Emotional Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
PTK.Early.3.1. Interact with peers in shared activities and occasionally participate in cooperative efforts with peers, with adult support .	PTK.Later.3.1. More actively and intentionally interact and cooperate with peers in daily learning and play activities.	<p>Consistently contribute to making interactions with peers positive, cooperative, and collaborative (for example, ask to play with others, share and take turns in small and larger groups as part of classroom activities) with some adult support in groups.</p> <p>Describe positive qualities in peers and celebrate accomplishments of their peers.</p>	<p>Contribute to making interactions with peers positive, cooperative, and collaborative in a greater variety of interactions with peers, such as one-on-one, small-group, and educator-led activities and projects.</p> <p>Use active listening skills and turn taking in conversations with peers to make them feel seen and heard.</p>

Learning Progression 3.3: Interactions and Relationships with Peers: Conflict Resolution with Peers

Preschool/Transitional Kindergarten Learning Foundations		K–3 Social and Emotional Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
PTK.Early.3.2. Seek adult assistance to resolve peer conflicts or disagreements.	PTK.Later.3.2. Negotiate with peers and more often communicate to respond to conflict. Seek adult assistance to understand peers’ needs or to resolve a conflict.	Make greater efforts to resolve conflict with peers using simple strategies of apologizing, sharing, taking turns, and negotiating to address both parties’ needs with adult support .	<p>Resolve conflicts with peers in more complex contexts (for example, not getting along with a peer while working in a shared space, a peer being left out of a birthday celebration).</p> <p>Demonstrate ability to resolve a problem by explaining their feelings, negotiating, and compromising with peers with encouragement and support from adults.</p> <p>Ask others to explain viewpoints and use a range of strategies to constructively identify a shared solution.</p>

Learning Progression 3.4: Interactions and Relationships with Peers: Equitable Social Interactions

Preschool/Transitional Kindergarten Learning Foundations		K–3 Social and Emotional Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
PTK.Early.3.3. Demonstrate understanding of sharing and treating those who may be similar to or different from them with fairness, although require some adult prompting to share.	PTK.Later.3.3. More consistently share with others and treat others with fairness and respect with less adult prompting , including calling out unfairness in play and daily activities.	<p>Engage in respectful and healthy relationships with children from similar and different backgrounds.</p> <p>Practice sharing, waiting, and taking turns with others, but may need support from adults.</p> <p>Utilize strategies to set up and practice boundaries for their own safety and well-being.</p> <p>Identify and respond to hurtful behavior with adult support.</p>	<p>Collaborate and work with diverse individuals in a range of situations, including group activities and projects.</p> <p>Recognize the rights of others to engage respectfully with all people.</p> <p>Identify bullying behaviors and confront bullying by standing up for themselves and others (for example, calling out hurtful behavior); request support from a trusted adult to address bullying when needed.</p>

Learning Progression 3.5: Interactions and Relationships with Peers: Relationships with Peers

Preschool/Transitional Kindergarten Learning Foundations		K–3 Social and Emotional Skills and Behaviors	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 1	Grade 2 Through Grade 3
PTK.Early.3.4. Choose to play with one or two special peers they identify as friends. Share more complex play with friends than with other children.	PTK.Later.3.4. Develop friendships that are more reciprocal, exclusive, and enduring. Engage in enhanced cooperation and problem-solving efforts.	Develop and maintain intimate friendships by demonstrating greater attentive listening and conversational skills with friends, engaging in more time and activities with friends, and providing emotional support for friends.	<p>Identify and demonstrate strategies for sustaining close and constructive relationships with peers (for example, acting based on shared interests and experiences, expressing caring for friends’ feelings, interests, and well-being).</p> <p>Understand, name, and discuss their social status in peer groups (such as acceptance and regard of peers in their peer group and the size of their peer social network).</p>

Key Area 1: Language Development

Learning Progression Table 1.1: Word Understanding and Use

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
PTK.Early.1.1. Understand and use words for objects, actions, and attributes frequently experienced in everyday life, such as through play, conversations, or stories.	PTK.Later.1.1. Understand and use an increasing variety of words for objects, actions, and attributes experienced in everyday life, such as through play, conversations, or stories.	L.K.6. Use words and phrases acquired through conversations, reading, and being read to, and responding to texts.	L.1.6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., because).	L.2.6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., When other kids are happy that makes me happy).	L.3.6. Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).

Learning Progression Table 1.2: Word Relationship and Nuance

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
<p>PTK.Early.1.2. Understand and use commonly experienced vocabulary to describe categories and the relationships within them (for example, “foods” including “carrots” and “bread”).</p> <p>PTK.Early.1.3. Understand and use words to describe the size and location of objects (such as “tiny” and “on”), including simple comparisons (such as “bigger”).</p>	<p>PTK.Later.1.2. Understand and use increasingly specific vocabulary to describe categories and the relationships within them (for example, “vegetables” including “carrots” and “peas”).</p> <p>PTK.Later.1.3. Understand and use increasingly specific words to describe and compare the size or location of objects (such as “longer” and “between”).</p>	<p>L.K.5.a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.</p> <p>L.K.5.d. Distinguish shades of meaning among verbs describing the same general action (e.g., walk, march, strut, prance) by acting out the meanings.</p>	<p>L.1.5.a. Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent.</p> <p>L.K.5.d. Distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scowl) and adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings.</p>	<p>L.2.5.b. Distinguish shades of meaning among closely related verbs (e.g., toss, throw, hurl) and closely related adjectives (e.g., thin, slender, skinny, scrawny).</p>	<p>L.3.5.c. Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., knew, believed, suspected, heard, wondered).</p>

Learning Progression Table 1.3: Grammatical Features and Sentence Structure

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
PTK.Early.1.1. Use common word forms (for example, shiny, swims) and sentence forms to express thoughts and ideas.	PTK.Later.1.1. Use both common (for example, shiny, swims) and less common word forms (for example, shiniest, swam) and sentence forms to express complex thoughts and ideas.	L.K.1.f. Produce and expand complete sentences in shared language activities.	L.1.1.j. Produce and expand complete sentences in shared language activities.	L.2.1.f. Produce, expand, and rearrange complete simple and compound sentences (e.g., The boy watched the movie; The little boy watched the movie; The action movie was watched by the little boy).	L.3.1.h. Use coordinating and subordinating conjunctions. L.3.1.i. Produce simple, compound, and complex sentences.

Key Area 2: Meaning Making

Learning Progression Table 2.1: Meaning Making: Verbal and Written Information

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
<p>PTK.Early.1.5.* Use questions to seek information and to clarify and confirm understanding.</p> <p>PTK.Early.3.3. Demonstrate basic understanding of informational text after the child has experienced the text a few times.</p>	<p>PTK.Later.1.5.* Use questions and follow-up questions to seek information and to clarify and confirm understanding.</p> <p>PTK.Later.3.3. Demonstrate deeper understanding of informational text using their abilities to make connections to previous knowledge, make inferences, and ask questions.</p>	<p>SL.K.3.* Ask and answer questions in order to seek help, get information, or clarify something that is not understood.</p> <p>RI.K.1. With prompting and support, ask and answer questions about key details in a text.</p> <p>RI.K.2. With prompting and support, identify the main topic and retell key details of a text.</p>	<p>SL.1.3.* Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.</p> <p>RI.1.1. Ask and answer questions about key details in a text.</p>	<p>SL.2.3.* Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.</p> <p>RI.2.1. Ask and answer questions such as who, what, where, when, why, and how to demonstrate understanding of key details in a text.</p>	<p>SL.3.3.* Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p> <p>RI.3.1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p>

* These foundations and standards also appear in the learning progressions for Key Area 3: Effective Expression.

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Learning Progression Table 2.1: Meaning Making: Verbal and Written Information

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
		RI.K.3. With promoting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.	RI.1.2. Identify the main topic and retell key details of a text. RI.1.3. Describe the connection between two individuals, events, ideas, or pieces of information in a text.	RI.2.2. Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text. RI.2.3. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.	RI.3.2. Determine the main idea of a text; recount the key details and explain how they support the main idea. RI.3.3. Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.

Learning Progression Table 2.2: Meaning Making: Verbal and Written Narratives and Stories

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
PTK.Early.1.6.* Use language to construct real or fictional short narratives (for example, recall a trip to the zoo or tell a story about being a pirate on a boat).	PTK.Later.1.6.* Use language to construct real or fictional extended narratives that have several details or a plotline (for example, recall a trip to the zoo where they saw lions and a seagull stole their hot dog, or tell a story about being a pirate on a boat going to an island to find treasure).	SL.K.4.* Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. RL.K.1. With prompting and support, ask and answer questions about key details in a text. RL.K.2. With prompting and support, retell familiar stories, including key details.	SL.1.4.* Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly. RL.1.1. Ask and answer questions about key details in a text. RL.1.2. Retell stories, including key details, and demonstrate understanding of their central message or lesson.	SL.2.4.* Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences. RL.2.1. Ask and answer such questions as <i>who</i> , <i>what</i> , <i>where</i> , <i>when</i> , <i>why</i> , and <i>how</i> to demonstrate understanding of key details in a text.	SL.3.4.* Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace. RL.3.1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

* These foundations and standards also appear in the learning progressions for Key Area 3: Effective Expression.

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Learning Progression Table 2.2: Meaning Making: Verbal and Written Narratives and Stories

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
PTK.Early.3.2. Demonstrate basic understanding of main characters or events in a story after the child has experienced the story a few times (for example, retell a favorite story out of order, naming the main characters).	PTK.Later.3.2. Demonstrate understanding of details in a story, including knowledge of characters, events, and ordering of events, and use their increased understanding of story structure to predict what might come next when asked (for example, retell a story, including most events, in order and name several characters).	RL.K.3. With prompting and support, identify characters, settings, and major events in a story.	RL.1.3. Describe characters, settings, and major events in a story, using key details.	RL.2.2. Recount stories, including fables and folktales from diverse cultures, and determining their central message, lesson or moral. RL.2.3. Describe how characters in a story respond to major events and challenges.	RL.3.2. Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text. RL.3.3. Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.

Key Area 3: Effective Expression

Learning Progression Table 3.1: Questions

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
PTK.Early.1.5.* Use questions to seek information and to clarify and confirm understanding (for example, ask if outdoor play will be after snack).	PTK.Later.1.5.* Use questions and follow-up questions to seek information and to clarify and confirm understanding (for example, ask if outdoor play will be after the snack and follow up by asking if they can use the balls outside).	SL.K.3.* Ask and answer questions in order to seek help, get information, or clarify something that is not understood.	SL.1.3.* Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.	SL.2.3.* Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.	SL.3.3.* Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

* These foundations and standards also appear in the learning progressions for Key Area 2: Meaning Making.

Learning Progression Table 3.2: Conversations

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
PTK.Early.1.8. Participate in back-and-forth conversations with adults and peers. Respond on topic for at least one turn in a conversation.	PTK.Later.1.8. Participate in increasingly long and complex back-and-forth conversations with adults and peers. Respond on topic across several turns in the conversation.	SL.K.1.a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). SL.K.1.b. Continue a conversation through multiple exchanges.	SL.1.1.a. Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion). SL.1.1.b. Build on others' talk in conversations by responding to the comments of others through multiple exchanges.	SL.2.1.a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). SL.2.1.b. Build on others' talk in conversations by linking their comments to the remarks of others.	SL.3.1 1.a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. SL.3.1 1.b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).

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Learning Progression Table 3.2: Conversations

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
			SL.1.1.c. Ask questions to clear up any confusion about the topics and texts under discussion.	SL.2.1.c. Ask for clarification and further explanation as needed about the topics and texts under discussion.	SL.3.1 1.c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. SL.3.1 1.d. Explain their own ideas and understanding in light of the discussion.

Learning Progression Table 3.3: Telling Stories and Expressing Thoughts and Ideas

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
<p>PTK.Early.1.6.* Use language to construct real or fictional short narratives (for example, recall a trip to the zoo, or tell a story about being a pirate on a boat).</p> <p>PTK.Early.1.7. Share descriptions, opinions, and explanations.</p>	<p>PTK.Later.1.6.* Use language to construct real or fictional extended narratives that have several details or a plotline (for example, recall a trip to the zoo where they saw lions and a seagull stole their hot dog, or tell a story about being a pirate on a boat going to an island to find treasure).</p> <p>PTK.Later.1.7. Share detailed descriptions, opinions, and explanations.</p>	<p>RL.K.2. With prompting and support, retell familiar stories, including key details.</p> <p>SL.K.4.* Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.</p>	<p>RL.1.2. Retell stories, including key details, and demonstrate understanding of their central message or lesson.</p> <p>SL.1.4.* Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.</p>	<p>RL.2.2. Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.</p> <p>SL.2.4.* Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.</p>	<p>RL.3.4. Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.</p> <p>SL.3.4.* Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.</p>

*These foundations and standards also appear in the learning progressions for Key Area 2: Meaning Making.

Learning Progression Table 3.4: Writing a Range of Text Types*

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
<p>PTK.Early.1.6. Use language to construct real or fictional short narratives.</p> <p>PTK.Early.1.7. Share descriptions, opinions, and explanations.</p> <p>PTK.Early.4.3. Engage in dictating thoughts and ideas when an adult offers to help with writing them down.</p>	<p>PTK.Later.1.6. Use language to construct real or fictional extended narratives that have several details or a plotline.</p> <p>PTK.Later.1.7. Share detailed descriptions, opinions, and explanations.</p> <p>PTK.Later.4.3. Demonstrate interest in conveying extended thoughts and ideas in writing, engaging the help of an adult.</p>	<p>W.K.3. Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.</p>	<p>W.1.3. Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.</p>	<p>W.2.3. Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.</p>	<p>W.3.3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <p>W.3.1. Write opinion pieces on topics or texts, supporting a point of view with reasons.</p> <p>W.3.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p>

* Additional foundations and standards related to writing conventions appear in Key Area 4: Foundational Skills.

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Learning Progression Table 3.4: Writing a Range of Text Types*

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
		W.K.1. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., My favorite book is ...).	W.1.1. Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure. W.1.2. Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.	W.2.1. Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., <i>because</i> , <i>and</i> , <i>also</i>) to connect opinion and reasons, and provide a concluding statement or section.	

* Additional foundations and standards related to writing conventions appear in Key Area 4: Foundational Skills.

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Learning Progression Table 3.4: Writing a Range of Text Types*

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
		W.K.2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.		W.2.2. Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.	

* Additional foundations and standards related to writing conventions appear in Key Area 4: Foundational Skills.

Key Area 4: Foundational Skills

Learning Progression Table 4.1: Phonological/Phonemic Awareness

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
<p>PTK.Early.2.1. Match words that have the same first sound in speech, with adult support or the support of pictures or objects.</p> <p>PTK.Early.2.2. When presented with two single-syllable words (such as “sand” and “box”), blend them into a compound word in speech with adult support or the support of pictures or objects.</p>	<p>PTK.Later.2.1. Isolate and pronounce the first sound of a word, with adult support or the support of pictures or objects.</p> <p>PTK.Later.2.2. When presented with syllables and individual sounds, blend them into words in speech with adult support or the support of pictures or objects.</p>	<p>RFS.K.2.a. Recognize and produce rhyming words.</p> <p>RFS.K.2.b. Count, pronounce, blend, and segment syllables in spoken words.</p> <p>RFS.K.2.c. Blend and segment onsets and rimes of single-syllable spoken words.</p>	<p>RFS.1.2.a. Distinguish long from short vowel sounds in spoken single-syllable words.</p> <p>RFS.1.2.b. Orally produce single-syllable words by blending sounds (phonemes), including consonant blends.</p> <p>RFS.1.2.c. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words.</p>	<p><i>Learners in second grade continue to use their phonological/phonemic awareness to develop their alphabetic, phonics, and decoding skills.</i></p>	<p><i>Learners in third grade continue to use their phonological/phonemic awareness to develop their alphabetic, phonics, and decoding skills.</i></p>

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Learning Progression Table 4.1: Phonological/Phonemic Awareness

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
		<p>RFS.K.2.d. Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonant-vowel-consonant, or CVC) words. (This does not include CVCs ending with /l/, /r/, or /x/.)</p> <p>RFS.K.2.e. Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words.</p> <p>RFS.K.2.f. Blend two to three phonemes into recognizable words. (CA)</p>	<p>RFS.1.2.d. Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).</p>		

Learning Progression Table 4.2: Alphabets, Phonics, and Decoding

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
<p>PTK.Early.2.4. Match some letter names to their printed form (for example, recognize the first letter of their name).</p> <p>PTK.Early.2.5. Recognize that letters or characters have sounds.</p>	<p>PTK.Later.2.4. Match many letter names to their printed form (for example, recognize the letters in their name and many of the letters that frequently appear on materials with peers' names).</p> <p>PTK.Later.2.5. Accurately identify or produce sounds associated with several letters or common characters with adult support.</p>	<p>RFS.K.1.d. Recognize and name all upper- and lowercase letters of the alphabet.</p> <p>RFS.K.3.a. Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the primary sounds or many of the most frequent sounds for each consonant.</p> <p>RFS.K.3.b. Associate the long and short sounds with common spellings (graphemes) for the five major vowels.</p>	<p>RFS.1.3.a. Know the spelling–sound correspondences for common consonant digraphs.</p> <p>RFS.1.3.b. Decode regularly spelled one-syllable words.</p> <p>RFS.1.3.c. Know final -e and common vowel team conventions for representing long vowel sounds.</p> <p>RFS.1.3.d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.</p>	<p>RFS.2.3.a. Distinguish long and short vowels when reading regularly spelled one-syllable words.</p> <p>RFS.2.3.b. Know spelling–sound correspondences for additional common vowel teams.</p> <p>RFS.2.3.c. Decode regularly spelled two-syllable words with long vowels.</p> <p>RFS.2.3.d. Decode words with common prefixes and suffixes.</p>	<p>RFS.3.3.a. Identify and know the meaning of the most common prefixes and derivational suffixes.</p> <p>RFS.3.3.b. Decode words with common Latin suffixes.</p> <p>RFS.3.3.c. Decode multisyllable words.</p>

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Learning Progression Table 4.2: Alphabets, Phonics, and Decoding

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
		<p>(Identify which letters represent the five major vowels [Aa, Ee, Ii, Oo, and Uu] and know the long and short sound of each vowel. More complex long vowel graphemes and spellings are targeted in the grade 1 phonics standards.) (CA)</p> <p>RFS.K.3.d. Distinguish between similarly spelled words by identifying the sounds of the letters that differ.</p>	<p>RFS.1.3.e. Decode two-syllable words following basic patterns by breaking the words into syllables.</p> <p>RFS.1.3.f. Read words with inflectional endings.</p>	<p>RFS.2.3.e. Identify words with inconsistent but common spelling–sound correspondences.</p>	

Learning Progression Table 4.3: Fluency

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
<i>Children in preschool and TK develop skills and knowledge around spoken or signed language, print concepts, alphabets, and phonological/phonemic awareness that lead to reading fluency in later grades.</i>	<i>Children in preschool and TK develop skills and knowledge around spoken or signed language, print concepts, alphabets, and phonological/phonemic awareness that lead to reading fluency in later grades.</i>	RFS.K.4. Read emergent-reader texts with purpose and understanding.	RFS.1.4.a. Read on-level text with purpose and understanding. RFS.1.4.b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings.	RFS.2.4.a. Read on-level text with purpose and understanding. RFS.2.4.b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings.	RFS.3.4.a. Read on-level text with purpose and understanding. RFS.3.4.b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.

Learning Progression Table 4.4: Writing Conventions*

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
PTK.Early.4.4. Write using scribbles that resemble letters or characters and are distinct from pictures.	<p>PTK.Later.4.2. Write, with adult support, a few recognizable letters that are intended to represent their corresponding sounds.</p> <p>PTK.Later.4.4. Write a few recognizable letters or characters to represent words or ideas.</p>	<p>L.K.2.c. Write a letter or letters for most consonant and short-vowel sounds (phonemes).</p> <p>L.K.2.d. Spell simple words phonetically, drawing on knowledge of sound-letter relationships.</p>	<p>L.1.2.d. Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words.</p> <p>L.1.2.e. Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions.</p>	L.2.2.d. Generalize learned spelling patterns when writing words (e.g., cage → badge; boy → boil).	L.3.2.e. Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., <i>sitting, smiled, cries, happiness</i>).

* Additional foundations and standards related to writing, such as writing through dictation, appear in Key Area 3: Effective Expression.

Key Area 5: Content Knowledge

Learning Progression Table 5.1: Engaging in Inquiry-Based Approaches to Reading and Writing

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
<p>PTK.Early.3.1. Demonstrate interest in and engagement with literacy and literacy-related activities.</p> <p>PTK.Early.3.3. Demonstrate basic understanding of informational text after the child has experienced the text a few times.</p>	<p>PTK.Later.3.1. Demonstrate interest in and engagement with literacy and literacy-related activities for progressively extended periods of time and with increasing independence.</p> <p>PTK.Later.3.3. Demonstrate deeper understanding of informational text using their abilities to make connections to previous knowledge, make inferences, and ask questions.</p>	<p>W.K.7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them).</p> <p>W.K.8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.</p>	<p>W.1.7. Participate in shared research and writing projects (e.g., explore a number of “how-to” books on a given topic and use them to write a sequence of instructions).</p> <p>W.1.8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.</p>	<p>W.2.7. Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).</p> <p>W.2.8. Recall information from experiences or gather information from provided sources to answer a question.</p>	<p>W.3.7. Conduct short research projects that build knowledge about a topic.</p> <p>W.3.8. Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.</p>

Key Area 1: Counting and Cardinality

Learning Progression Table 1.1: Count in Sequence

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
PTK.Early.1.1. Recite numbers in order from one to ten or higher with no more than a few errors.	PTK.Later.1.1. Recite numbers in order from one to thirty with no more than a few errors. Count forward from a number other than one.	K.CC.1. Count to 100 by ones and by tens. K.CC.2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	1.NBT.1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	2.NBT.2. Count within 1000; skip-count by 2s, 5s, 10s, and 100s.	<i>Children in third grade continue to build on their understanding of the number system to count in sequence or skip count, advancing to numbers beyond 1000.</i>

Standard 1.NBT.1 under column Grade 1 is represented within Learning Progression Table 1.1 Counting in Sequence, Learning Progression Table 1.2 Connect Counting to Cardinality, and Learning Progression Table 1.3 Read and Write Numerals of Key Area 1 because it includes three distinct skills related to each of those progressions.

Learning Progression Table 1.2: Connect Counting to Cardinality

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
<p>PTK.Early.1.2. Count five objects or more using one-to-one correspondence (one object for each number word).</p> <p>PTK.Early.1.3. Answer the question “How many ... ?” May repeat the last number word in the number list after counting but is still developing an understanding that the number name of the last object counted represents the total number of objects in the group.</p>	<p>PTK.Later.1.2. Count ten objects or more using one-to-one correspondence (one object for each number word).</p> <p>PTK.Later.1.3. Consistently demonstrate understanding, when counting, that the number name of the last object counted represents the total number of objects in the group.</p>	<p>K.CC.4. Understand the relationship between numbers and quantities; connect counting to cardinality.</p> <p>K.CC.5. Count to answer “how many?” questions for about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.</p>	<p>1.NBT.1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.</p> <p><i>Counting with understanding is foundational to early elementary mathematics learning in all key areas (for example, in solving addition and subtraction problems: 1.OA.5. Relate counting to addition and subtraction [for example, by counting on 2 to add 2]).</i></p>	<p><i>Counting with understanding is foundational to early elementary mathematics learning in all key areas. (for example, in reasoning about shapes: 2.G.2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.)</i></p>	<p><i>Counting with understanding is foundational to early elementary mathematics learning in all key areas (for example, in geometric measurement: 3.G.6. Measure areas by counting unit squares [square cm, square m, square in, square ft, and improvised units]).</i></p>

Learning Progression Table 1.3: Read and Write Numerals

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
PTK.Early.1.5. Recognize and name a few written numerals under 10.	PTK.Later.1.5. Recognize and name all written numerals through 10.	K.CC.3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).	1.NBT.1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	2.NBT.3. Read and write numbers up to 1000 using base-ten numerals, number names, and expanded form.	<i>Children in third grade continue to build on reading and writing numbers, advancing to larger numbers.</i>

Learning Progression Table 1.4: Compare Numbers

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
PTK.Early.1.6. Compare visually (with or without counting) two groups of objects that are clearly equal or different in size and communicate, “same” or “more.”	PTK.Later.1.6. Compare two groups of objects by counting and communicating, “more,” “same,” “less,” or “fewer.”	<p>K.CC.6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, for example, by using matching and counting strategies.</p> <p>K.CC.7. Compare two numbers between 1 and 10 presented as written numerals.</p>	1.NBT.3. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.	2.NBT.4. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.	<p><i>Children in third grade move from focusing on comparing whole numbers to also include comparing fractions.</i></p> <p>3.NF.3. Explain equivalence of fractions in special cases and compare fractions by reasoning about their size (see standards 3.NF.3 a–d.).</p>

Key Area 2: Operations and Algebraic Thinking

Learning Progression Table 2.1: Represent and Solve Addition and Subtraction Problems

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
<p>PTK.Early.2.1. Demonstrate understanding that adding or taking away one or more objects from a group will increase or decrease the number of objects in the group.</p> <p>PTK.Early.2.3. Solve addition and subtraction problems with a very small number of objects (sums up to 5 or 6), in the context of everyday situations.</p>	<p>PTK.Later.2.1. Demonstrate understanding that adding one or taking away one changes the number in a small group of objects by exactly one.</p> <p>PTK.Later.2.3. Solve addition and subtraction problems with a larger number of objects (sums up to 10), in the context of everyday situations.</p>	<p>K.OA.1. Represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations.</p>	<p>1.OA.1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.</p>	<p>2.OA.1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.</p>	<p><i>Children in third grade continue to apply knowledge of addition and subtraction to solve various problems including problems involving time (3.MD.1.), finding the area of rectangles (3.MD.5-7.), and as a foundation for understanding multiplication and division (see standards 3.OA.1–4.).</i></p> <p><i>Children use these skills to solve word problems.</i></p>

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Learning Progression Table 2.1: Represent and Solve Addition and Subtraction Problems

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
			<p>1.OA.2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20.</p> <p>1.OA.3. Apply properties of operations as strategies to add and subtract.</p> <p>1.OA.4. Understand subtraction as an unknown-addend problem.</p> <p>1.OA.5. Relate counting to addition and subtraction.</p>		<p>3.OA.8. Solve two-step word problems using the four operations (<i>addition, subtraction, multiplication, and division</i>). Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.</p>

Learning Progression Table 2.2: Compose and Decompose Numbers

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
PTK.Early.2.2. Demonstrate understanding that a set of objects is made up of smaller parts and that the whole set is bigger than its parts.	PTK.Later.2.2. Decompose a set of objects into two small sets in more than one way (for example, decompose 5 into sets of 3 and 2, or 1 and 4). Combine two small sets to create a larger set (for example, 3 and 2 to make a set of 5).	K.OA.3. Decompose numbers less than or equal to 10 into pairs in more than one way. K.OA.4. For any number from 1 to 9, find the number that makes 10 when added to the given number.	<i>In solving unknown whole numbers in addition and subtraction equations, children apply an understanding of how whole numbers can be broken into parts (for example, 11 can be decomposed into 8 and 3:</i> 1.OA.8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, $8 + ? = 11$).	<i>As children decompose numbers into hundreds, tens, and ones, they develop their understanding of place value.</i> 2.NBT.1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; for example, 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:	<i>Children in third grade move from a focus on whole numbers to also include fractions (for example, decomposing 1 into smaller parts:</i> 3.NF.1. Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by parts of size $1/b$).

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Learning Progression Table 2.2: Compose and Decompose Numbers

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
				<p>a. 100 can be thought of as a bundle of ten tens—called a “hundred.”</p> <p>b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).</p>	

Learning Progression Table 2.3: Add and Subtract Within a Range (5, 10, 20, 100, 1000)

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
PTK.Early.2.3. Solve addition and subtraction problems with a very small number of objects (sums up to 5 or 6), in the context of everyday situations.	PTK.Later.2.3. Solve addition and subtraction problems with a larger number of objects (sums up to 10), in the context of everyday situations.	K.OA.2. Solve addition and subtraction word problems and add and subtract within 10. K.OA.5. Fluently add and subtract within 5.	I.OA.6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten; decomposing a number leading to a ten; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.	2.OA.2. Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. 2.NBT.5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	3.NBT.2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

Learning Progression Table 2.4: Identify, Create, and Reason with Patterns

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
<p>PTK.Early.2.6. Notice and explore patterns in their environment and, with adult support, duplicate simple repeating patterns (for example, ABAB).</p> <p>PTK.Early.2.7. Create, with adult support, a simple repeating pattern (for example, ABAB).</p>	<p>PTK.Later.2.6. Explore, extend, and duplicate a variety of repeating patterns (for example, AABBAABB, ABCABC) with adult support. Describe the repeating part of a pattern (pattern unit).</p> <p>PTK.Later.2.7. Create a variety of repeating patterns (for example, AABBAABB, ABCABC) or re-create existing patterns using different objects.</p>	<p><i>Patterns are foundational in various mathematical processes (for example, using patterns within the base-ten system when counting to 100: K.CC.1. Count to 100 by ones and by tens).</i></p>	<p><i>Patterns are foundational in various mathematical processes (for example, using patterns within the base-ten system to count and understand place value: 1.NBT.1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral; 1.NBT.2. Understand that the two digits of a two-digit number represent amounts of tens and ones).</i></p>	<p><i>Patterns are foundational in various mathematical processes (for example, using patterns within the base-ten system to count and understand place value: 2.NBT.2. Count within 1000; skip-count by 2s, 5s, 10s, and 100s; 2.NBT.1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; for example, 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases).</i></p>	<p>3.OA.9. Identify arithmetic patterns (including patterns in the addition table or multiplication table) and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.</p>

Key Area 3: Number and Operations in Base Ten

Learning Progression Table 3.1: Understand Place Value

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
<p>PTK.Early.2.2. Demonstrate understanding that a set of objects is made up of smaller parts and that the whole set is bigger than its parts.</p> <p>PTK.Early.2.3. Solve addition and subtraction problems with a very small number of objects (sums up to 5 or 6), in the context of everyday situations.</p>	<p>PTK.Later.2.2. Decompose a set of objects into two small sets in more than one way (for example, decompose 5 into sets of 3 and 2, or 1 and 4). Combine two small sets to create a larger set (for example, 3 and 2 to make a set of 5).</p>	<p>K.NBT.1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, for example, by using objects or drawings, and record each composition or decomposition by a drawing or equation (for example, $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.</p>	<p>1.NBT.2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:</p> <p>a. 10 can be thought of as a bundle of ten ones—called a “ten.”</p>	<p>2.NBT.1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; for example, 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:</p> <p>a. 100 can be thought of as a bundle of ten tens—called a “hundred.”</p>	<p>3.NBT.1. Use place value understanding to round whole numbers to the nearest 10 or 100.</p>

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Learning Progression Table 3.1: Understand Place Value

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
	PTK.Later.2.3. Solve addition and subtraction problems with a larger number of objects (sums up to 10), in the context of stories or everyday situations.		b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).	b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).	

Learning Progression Table 3.2: Use Place Value Understanding to Add and Subtract

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
<p>PTK.Early.2.2. Demonstrate understanding that a set of objects is made up of smaller parts and that the whole set is bigger than its parts.</p> <p>PTK.Early.2.3. Solve addition and subtraction problems with a very small number of objects (sums up to 5 or 6), in the context of everyday situations.</p>	<p>PTK.Later.2.2. Decompose a set of objects into two small sets in more than one way (for example, decompose 5 into sets of 3 and 2, or 1 and 4). Combine two small sets to create a larger set (for example, 3 and 2 to make a set of 5).</p> <p>PTK.Later.2.3. Solve addition and subtraction problems with a larger number of objects (sums up to 10), in the context of stories or everyday situations.</p>	<p>K.NBT.1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, for example, by using objects or drawings, and record each composition or decomposition by a drawing or equation (for example, $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.</p>	<p>1.NBT.4. Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens,</p>	<p>2.NBT.5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</p> <p>2.NBT.6. Add up to four two-digit numbers using strategies based on place value and properties of operations.</p> <p>2.NBT.7. Add and subtract within 1000, using concrete models or drawings and strategies based on place value,</p>	<p>3.NBT.2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.</p> <p>3.NBT.3. Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (for example, 9×80, 5×60) using strategies based on place value and properties of operations.</p>

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Learning Progression Table 3.2 Use Place Value Understanding to Add and Subtract

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
			<p>ones and ones; and sometimes it is necessary to compose a ten.</p> <p>1.NBT.5. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.</p>	<p>properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.</p>	

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Learning Progression Table 3.2: Use Place Value Understanding to Add and Subtract

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
			1.NBT.6. Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	2.NBT.8. Mentally add 10 or 100 hundred to a given number 100–900. And mentally subtract 10 or 100 hundred from a given number 100–900. 2.NBT.9. Explain why addition and subtraction strategies work. Using place value and the properties of operations.	

Key Area 4: Measurement

Learning Progression Table 4.1: Describe, Compare, and Order Measurable Attributes

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
<p>PTK.Early.3.1. Demonstrate awareness that objects can be compared by length, weight, or capacity, by noticing differences in objects and communicating about their comparison.</p> <p>PTK.Early.3.2. Order a few objects (for example, three) by length or other attributes (for example, height, capacity).</p>	<p>PTK.Later.3.1. Compare two objects by length, weight, or capacity (for example, putting objects side by side) and communicate about their comparison.</p> <p>PTK.Later.3.2. Order a slightly larger number of objects (for example, four or five) by length or other attributes (for example, height, capacity).</p>	<p>K.MD.1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.</p> <p>K.MD.2. Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.</p>	<p>1.MD.1. Order three objects by length; compare the lengths of two objects indirectly by using a third object.</p>	<p>2.MD.4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.</p>	<p>3.MD.2. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, for example, by using drawings (such as a beaker with a measurement scale) to represent the problem.</p>

Learning Progression Table 4.2: Measure and Estimate Length

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
PTK.Early.3.1. Demonstrate awareness that objects can be compared by length, weight, or capacity, by noticing differences in objects and communicating about their comparison.	PTK.Later.3.3. Measure length using concrete objects laid end-to-end, sometimes needing adult support. <i>Note: Children may not yet understand that units need to be of equal length.</i>	K.MD.1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.	1.MD.2. Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.	2.MD.1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. 2.MD.2. Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen. 2.MD.3. Estimate lengths using units of inches, feet, centimeters, and meters.	<i>Children in third grade use measurement relating to length to solve problems involving area and perimeter (for example, 3.MD.7.a).</i> 3.MD.4. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.

Key Area 5: Data

Learning Progression Table 5.1: Classify, Represent, and Interpret Data

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
PTK.Early.2.5. Notice similarities and differences in the attributes of objects. Sort and classify objects by one attribute in two or more groups.	PTK.Later.2.5. Sort and classify objects by one or more attributes, into two or more groups, with accuracy and flexibility. When sorting by two attributes, a child may first sort by one attribute and then by the second attribute.	K.MD.3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.	1.MD.4. Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	2.MD.10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.	3.MD.3. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.

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Learning Progression Table 5.1: Classify, Represent, and Interpret Data

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
<p>PTK.Early.3.4. Use objects, tally marks, or pictographs to represent data in two groups, with adult support.</p> <p>PTK.Early.3.5. Notice, with adult support, differences in the data of two groups and describe which one has more or less.</p>	<p>PTK.Later.3.4. Use objects, tally marks, or pictographs to represent data in two or more groups. Demonstrate understanding that each object, tally mark, or picture represents one data point.</p> <p>PTK.Later.3.5. Describe and compare, with adult support, the number of data points in two or more groups. Determine which group has more or less.</p>				<p>3.MD.4. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.</p>

Key Area 6: Geometry and Spatial Thinking

Learning Progression Table 6.1: Identify, Describe, and Reason with Shapes and Their Attributes

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
PTK.Early.4.1. Identify familiar two-dimensional shapes, such as a circle, square, triangle, and rectangle. Note: May not identify a nontypical version of a shape (for example, a square turned so that the point is down—a diamond).	PTK.Later.4.1. Identify, describe, and construct different shapes including variations of a circle, square, triangle, rectangle, and other shapes. Use informal language to describe defining properties of a shape (for example, sides, corners, round).	K.G.1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.	1.G.1. Distinguish between defining attributes (for example, triangles are closed and three-sided) versus non-defining attributes (for example, color, orientation, overall size); build and draw shapes to possess defining attributes.	2.G.1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.	3.G.1. Understand that shapes in different categories (for example, rhombuses, rectangles, and others) may share attributes (for example, having four sides), and that the shared attributes can define a larger category (for example, quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of

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Learning Progression Table 6.1: Identify, Describe, and Reason with Shapes and Their Attributes

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
<p>PTK.Early.4.2. Occasionally identify a few familiar three-dimensional shapes using informal names (for example, saying “ball” when referring to a sphere).</p> <p>PTK.Early.4.3. Compare two-dimensional shapes of different sizes and orientations to determine whether they are the same shape.</p>	<p>PTK.Later.4.2. Identify a few familiar three-dimensional shapes, such as spheres, cubes, and cylinders. Note: Sometimes still use informal names (for example, ball, square box, tube).</p> <p>PTK.Later.4.3. Compare two-dimensional shapes of different sizes and orientations to determine whether they are the same shape. Identify similarities and differences in the</p>	<p>K.G.2. Correctly name shapes regardless of their orientations or overall size.</p> <p>K.G.3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).</p>			<p>quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.</p>

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Learning Progression Table 6.1: Identify, Describe, and Reason with Shapes and Their Attributes

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
<p>PTK.Early.4.5. Identify some positions of objects and people in space such as in/on, under/over, up/down, and inside/outside.</p> <p>PTK.Early.4.6. Rely on trial and error to determine how objects move in space or fit in different locations (for example, try to fit an object into a hole by rotating, flipping, or sliding the piece in different orientations until it fits).</p>	<p>properties (number of sides or vertices) of two different shapes.</p> <p>PTK.Later.4.5. Identify positions of objects and people in space, including in/on, under/over, up/down, inside/outside, near/far, next to, beside/between, and in front/behind.</p> <p>PTK.Later.4.6. Rotate, flip, or slide objects to solve a problem without relying as much on physical trial and error (for example, rotate an object before fitting it into a hole).</p>	<p>K.G.4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (for example, number of sides and vertices/“corners”) and other attributes (for example, having sides of equal length).</p>			

Learning Progression Table 6.2: Create, Compose, and Partition Shapes

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
PTK.Early.4.4. Use two- or three-dimensional shapes to represent different elements of a picture or design (for example, adding a circle in a corner to represent the sun).	PTK.Later.4.4. Combine different two- or three-dimensional shapes to create a picture or design (for example, make a house with two blocks shaped like rectangular prisms and one shaped like a triangular prism).	<p>K.G.5. Model shapes in the world by building shapes from components (for example, sticks and clay balls) and drawing shapes.</p> <p>K.G.6. Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?”</p>	1.G.2. Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.	<p>2.G.2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.</p> <p>2.G.3. Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.</p>	3.G.2. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as $\frac{1}{4}$ of the area of the shape.

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Learning Progression Table 6.2: Create, Compose, and Partition Shapes

Preschool/Transitional Kindergarten Learning Foundations		Common Core State Standards			
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten	Grade 1	Grade 2	Grade 3
			1.G.3. Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.		

Key Area 1: Science and Engineering Practices

Learning Progression 1.1: Asking Questions and Defining Problems

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards*	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3**
<p>PTK.Early.1.3. Demonstrate curiosity and raise simple questions about objects and events in their environment.</p> <p>PTK.Early.1.4. Identify problems during play and everyday interactions and try simple solutions on their own or in collaboration with peers and adults.</p>	<p>PTK.Later.1.3. Demonstrate curiosity and an increased ability to formulate more detailed and specific questions about objects and events in their environment.</p> <p>PTK.Later.1.4. Identify problems during play and everyday interactions and try multistep solutions on their own or in collaboration with peers and adults.</p>	<p>Science and Engineering Practice 1</p> <ul style="list-style-type: none"> Ask questions based on observations to find more information about the natural and/or designed worlds. Ask and/or identify questions that can be answered by an investigation. 	<p>Science and Engineering Practice 1</p> <ul style="list-style-type: none"> Ask questions about what would happen if a variable were changed. Identify scientific (testable) and non- scientific (non-testable) questions. Ask questions that can be investigated and predict reasonable outcomes based on patterns such as cause-and-effect relationships. Use prior knowledge to describe problems that can be solved.

* CA NGSS progression statements in this table are adapted from appendix 1 of the *Science Framework*.

** Tables refer only to Grade 3 in the column heading, but the statements cover Science and Engineering Practices for Grades 3–5 as described in the CA NGSS.

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Learning Progression 1.1: Asking Questions and Defining Problems

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
		<ul style="list-style-type: none">▪ Define a simple problem that can be solved through the development of a new or improved object or tool. (K-ESS3, K-2 ETS1)	<ul style="list-style-type: none">▪ Define a simple design problem that can be solved through the development of an object, tool, process, or system and includes several criteria for success and constraints on materials, time, or cost. (3-PS2, 3-5 ETS1)

Learning Progression 1.2: Planning and Carrying Out Investigations

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
<p>PTK.Early.1.1. Observe and actively explore objects and events using their senses and describe their observations.</p> <p>PTK.Early.1.2. Compare and contrast objects and events and describe similarities and differences based on observable properties.</p> <p>PTK.Early.1.5. Make simple predictions, begin to give reasons for their predictions, and, with adult support, check the predictions through concrete experiences.</p>	<p>PTK.Later.1.1. Observe and actively explore objects and events using their senses; describe and provide explanations for their observations.</p> <p>PTK.Later.1.2. Compare and contrast objects and events based on physical properties and function and describe similarities and differences in greater detail.</p> <p>PTK.Later.1.5. Make more detailed predictions drawing on prior experiences and observations, create plans to check predictions with adult support, and begin to discuss why predictions were correct or incorrect.</p>	<p>Science and Engineering Practice 3</p> <ul style="list-style-type: none"> ▪ With guidance, plan and conduct an investigation in collaboration with peers (for K). ▪ Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. ▪ Evaluate different ways of observing and/or measuring a phenomenon to determine which way can answer a question. ▪ Make observations (firsthand or from media) and/or measurements to collect data that can be used to make comparisons. 	<p>Science and Engineering Practice 3</p> <ul style="list-style-type: none"> ▪ Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence, using fair tests in which variables are controlled and the number of trials considered. ▪ Evaluate appropriate methods and/or tools for collecting data. ▪ Make observations and/or measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon or test a design solution.

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Learning Progression 1.2: Planning and Carrying Out Investigations

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
<p>PTK.Early.1.6. Carry out simple experiments and investigations, on their own or in collaboration with peers and adults, to test their ideas and explanations about their observations.</p> <p>PTK.Early.1.7. Identify and use some observation and measurement tools, with adult support.</p>	<p>PTK.Later.1.6. Carry out more complex experiments and investigations, on their own or in collaboration with peers and adults, with greater persistence. Use observations and results of prior explorations to generate new questions and test new hypotheses.</p> <p>PTK.Later.1.7. Identify and use a greater variety of observation and measurement tools. Spontaneously use an appropriate tool, though may still need adult support.</p>	<p>Science and Engineering Practice 3</p> <ul style="list-style-type: none"> Make observations (firsthand or from media) and/or measurements of a proposed object or tool or solution to determine if it solves a problem or meets a goal. Make predictions based on prior experiences. <p>(K-PS3, 1-PS4, 1-ESS1, 2-PS1, 2-LS2, 2-LS4)</p>	<p>Science and Engineering Practice 3</p> <ul style="list-style-type: none"> Make predictions about what would happen if a variable changes. Test two different models of the same proposed object, tool, or process to determine which better meets criteria for success. <p>(3-PS2, 3–5-ETS1)</p>

Learning Progression 1.3: Developing and Using Models

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
PTK.Early.1.8. Record observations or findings and use simple representations, including drawings, models, movement, role-play, and other methods, to convey their observations and understanding of science concepts, with adult support.	PTK.Later.1.8. Record observations or findings more regularly and in greater detail and use more detailed representations, including drawings, models, charts, diagrams, movement, role-play, and other methods, to convey their observations and understanding of science concepts, with adult support.	Science and Engineering Practice 2 <ul style="list-style-type: none"> ▪ Distinguish between a model and the actual object, process, and/or events the model represents. ▪ Compare models to identify common features and differences. ▪ Develop and/or use a model to represent amounts, relationships, relative scales (bigger, smaller), and/or patterns in the natural and designed world(s). ▪ Develop a simple model based on evidence to represent a proposed object or tool. (K-ESS3, K–2-ETS1, 2-LS2)	Science and Engineering Practice 2 <ul style="list-style-type: none"> ▪ Identify limitations of models. ▪ Collaboratively develop and/or revise a model based on evidence that shows the relationships among variables for frequent and regularly occurring events. ▪ Develop a model using an analogy, example, or abstract representation to describe a scientific principle or design solution. ▪ Develop and/or use models to describe and/or predict phenomena. ▪ Develop a diagram or simple physical prototype to convey a proposed object, tool, or process. ▪ Use a model to test cause-and-effect relationships or interactions concerning the functioning of a natural or designed system. (3-LS1)

Learning Progression 1.4: Mathematical Thinking and Interpreting Data

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
PTK.Early.1.9. Use mathematical thinking to analyze and quantify their observations and answer questions that arise in everyday activities, with adult support.	PTK.Later.1.9. Use mathematical thinking more independently and with greater precision to analyze and quantify their observations and answer questions that arise in everyday activities, with adult support.	Science and Engineering Practice 4 <ul style="list-style-type: none"> Record information (observations, thoughts, and ideas). Use and share pictures, drawings, and/or writings of observations. Use observations (firsthand or from media) to describe patterns and/or relationships in the natural and designed world(s) in order to answer scientific questions and solve problems. Compare predictions (based on prior experiences) to what occurred (observable events). Analyze data from tests of an object or tool to determine if it works as intended. (K-LS1, K-PS2, K-ESS2, 1-ESS1, 2-PS1, K–2-ETS1)	Science and Engineering Practice 4 <ul style="list-style-type: none"> Represent data in tables and/or various graphical displays (bar graphs, pictographs, and/or pie charts) to reveal patterns that indicate relationships. Analyze and interpret data to make sense of phenomena, using logical reasoning, mathematics, and/or computation. Compare and contrast data collected by different groups in order to discuss similarities and differences in their findings. Analyze data to refine a problem statement or the design of a proposed object, tool, or process. Use data to evaluate and refine design solutions. (3-LS3, 3-LS4, 3-ESS2)

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Learning Progression 1.4: Mathematical Thinking and Interpreting Data

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
		Science and Engineering Practice 5 <ul style="list-style-type: none"> Decide when to use qualitative versus quantitative data. Use counting and numbers to identify and describe patterns in the natural and designed world(s). Describe, measure, and/or compare quantitative attributes of different objects and display the data using simple graphs. Use quantitative data to compare two alternative solutions to a problem. 	Science and Engineering Practice 5 <ul style="list-style-type: none"> Decide if qualitative or quantitative data are best to determine whether a proposed object or tool meets criteria for success. Organize simple data sets to reveal patterns that suggest relationships. Describe, measure, estimate, and/or graph quantities (for example, area, volume, weight, time) to address science and engineering questions and problems. Create and/or use graphs and/or charts generated from simple algorithms to compare alternative solutions to an engineering problem.

Learning Progression 1.5: Formulating and Communicating Explanations and Solutions

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
PTK.Early.1.10. Formulate and communicate simple explanations and solutions, in collaboration with peers and adults, based on information gathered through observations and playful explorations.	PTK.Later.1.10. Formulate and communicate more detailed and precise explanations and solutions, in collaboration with peers and adults, based on information gathered through observations and playful explorations.	Science and Engineering Practice 6 <ul style="list-style-type: none"> Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. Use tools and/or materials to design and/or build a device that solves a specific problem or a solution to a specific problem. Generate and/or compare multiple solutions to a problem. (K-PS3, 1-LS1, 1-LS3, 1-PS4, 2-ESS1, 2-ESS2, 2-PS1)	Science and Engineering Practice 6 <ul style="list-style-type: none"> Construct an explanation of observed relationships (for example, the distribution of plants in the backyard). Use evidence (for example, measurements, observations, patterns) to construct or support an explanation or design a solution to a problem. Identify the evidence that supports particular points in an explanation. Apply scientific ideas to solve design problems. Generate and compare multiple solutions to a problem based on how well they meet the criteria and constraints of the design solution. (3-LS3, 3-LS4, 3–5-ETS1)

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Learning Progression 1.5: Formulating and Communicating Explanations and Solutions

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
		Science and Engineering Practice 8 <ul style="list-style-type: none"> Communicate information or design ideas and/or solutions with others in oral and/or written forms using models, drawings, writing, or numbers that provide detail about scientific ideas, practices, and/or design ideas. (K-ESS3, 1-LS1) <i>Refer to Science and Engineering Practice 7 and 8 in appendix 1 of the Science Framework for additional skills related to formulating and communicating explanations and solutions.</i>	Science and Engineering Practice 8 <ul style="list-style-type: none"> Communicate scientific and/or technical information orally and/or in written formats, including various forms of media as well as tables, diagrams, and charts. (3-ESS2) <i>Refer to Science and Engineering Practice 7 and 8 in appendix 1 of the Science Framework for additional skills related to formulating and communicating explanations and solutions.</i>

Key Area 2: Life Science

Learning Progression 2.1: Structures and Processes of Living Things

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards*	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
<p>PTK.Early.3.1. Identify and describe characteristics of a variety of animals and plants, including appearance (inside and outside) and behavior, and begin to categorize them.</p> <p>PTK.Early.3.2. Begin to indicate knowledge of bodily processes (for example, eating, sleeping, breathing, walking) in humans and other animals.</p> <p>PTK.Early.3.3. Expect animate objects (people and animals) to self-initiate movement and to have different insides and biological processes that make them behave differently from inanimate objects.</p>	<p>PTK.Later.3.1. Identify and describe characteristics of a greater variety of animals and plants and demonstrate an increased ability to categorize them.</p> <p>PTK.Later.3.2. Indicate greater knowledge of bodily processes (for example, eating, sleeping, breathing, walking) in humans and other animals.</p> <p>PTK.Later.3.3. Indicate knowledge of the difference between living and nonliving things and recognize that only living things (people, animals, plants) undergo biological processes such as growth, illness, healing, and dying.</p>	<p><i>In kindergarten through second grade, children build their understanding that all organisms have external parts that help them survive and grow.</i></p> <p>1-LS1-1. Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.</p>	<p><i>In third through fifth grade, children build their understanding that plants and animals have both internal and external parts that serve various functions related to their survival, behavior, and reproduction.</i></p> <p><i>No standards in third grade focus on these life science disciplinary core ideas. Related standards are found in fourth grade.</i></p>

* CA NGSS progression statements in this table are adapted from the Performance Expectations in the CA NGSS, also summarized in appendix 1 in the *Science Framework*.

Learning Progression 2.2: Growth, Development, and Needs of Living Things

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
<p>PTK.Early.3.6. Observe and explore growth and changes in humans, animals, and plants and communicate understanding that living things change over time in size and in other capacities as they grow and age.</p> <p>PTK.Early.3.7. Recognize that animals and plants require care and begin to associate feeding and watering with the growth and survival of humans, animals, and plants.</p>	<p>PTK.Later.3.6. Observe and explore growth in humans, animals, and plants and communicate an increased understanding that living things change as they grow and age. Describe transformations related to an individual's life cycle (for example, birth, growth, reproduction, death).</p> <p>PTK.Later.3.7. Describe the needs of humans, animals, and plants for growth and survival (for example, food, water, sleep, sunshine, shelter).</p>	<p><i>In kindergarten through second grade, children continue to build their understanding of the needs of animals and plants to grow and survive along with the behaviors and characteristics that help them meet their needs and survive.</i></p> <p>K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.</p> <p>1-LS1-1. Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.</p> <p>1-LS1-2. Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.</p>	<p><i>In third through fifth grade, children build a detailed understanding of the needs of animals and plants to grow and survive along with the processes by which they do so, including reproduction and life cycles.</i></p> <p>3-LS1-1. Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.</p> <p>3-LS2-1. Construct an argument that some animals form groups that help members survive.</p>

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Learning Progression 2.2: Growth, Development, and Needs of Living Things

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
		2-LS2-1. Plan and conduct an investigation to determine if plants need sunlight and water to grow. 2-LS2-2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.	3-LS4-2. Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.

Learning Progression 2.3: Heredity and Traits of Living Things

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
<p>PTK.Early.3.4. Name and describe similarities and differences they observe between grown animals, including humans, and their offspring.</p>	<p>PTK.Later.3.4. Express their expectation that offspring will reflect similar characteristics to grown animals and plants of the same kind.</p>	<p><i>In kindergarten through second grade, children expand their understanding that young animals and plants are very much, but not exactly, like their parents and that individuals of the same kind are similar but can also vary in many ways.</i></p> <p>1-LS3-1. Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.</p>	<p><i>In third through fifth grade, children build their understanding that many characteristics of living things are inherited from their parents and others result from interactions with the environment. They also learn that different organisms vary in how they look and function because they have different inherited information.</i></p> <p>3-LS3-1. Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.</p> <p>3-LS3-2. Use evidence to support the explanation that traits can be influenced by the environment.</p>

Learning Progression 2.4: Habitats and Biodiversity

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
PTK.Early.3.5. Identify the habitats of people and familiar animals and plants and communicate their understanding that living things have different habitats.	PTK.Later.3.5. Recognize that living things have different habitats suited to their unique needs.	<p><i>In kindergarten through second grade, children build their understanding that there are many different kinds of living things in any area, on land and in water.</i></p> <p>2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.</p>	<p><i>In third through fifth grade, children build their understanding that populations live in a variety of habitats and changes in those habitats affect organisms living there.</i></p> <p>3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.</p> <p>3-LS4-4. Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.</p>

Key Area 3: Physical Science

Learning Progression 3.1: Characteristics of Objects and Materials

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards*	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
PTK.Early.2.1. Investigate and describe the characteristics and physical properties of objects and of solid and nonsolid materials (size, weight, shape, color, texture, smell, and sound).	PTK.Later.2.1. Investigate and describe in greater detail the characteristics and physical properties of objects and of solid, liquid, and gas materials (size, weight, shape, color, texture, smell, and sound).	<p><i>In kindergarten through second grade, children expand their understanding that matter can be classified by its observable properties and that different properties are suited to different purposes. They also learn that a great variety of objects can be built up from a small set of pieces.</i></p> <p>2-PS1-1. Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.</p>	<p><i>In third through fifth grade, children build their understanding that matter is subdivided into particles, the amount of matter is conserved when it changes form, and measurements of a variety of properties can be used to identify materials.</i></p> <p><i>No standards in third grade focus on these physical science disciplinary core ideas. Related standards are found in fifth grade.</i></p>

* CA NGSS progression statements in this table are adapted from the Performance Expectations in the CA NGSS, also summarized in appendix 1 in the *Science Framework*.

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Learning Progression 3.1: Characteristics of Objects and Materials

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
		<p>2-PS1-2. Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.</p> <p>2-PS1-3. Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.</p>	

Learning Progression 3.2: Changes in Objects and Materials

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
PTK.Early.2.3. Explore and describe changes in objects and materials (for example, change in color, shape, texture, temperature), using their senses, during play and collaborative investigations, with adult support.	PTK.Later.2.3. Explore, describe, and formulate explanations of changes in objects and materials (for example, change in color, shape, texture, form, temperature), using their senses, during play and collaborative investigations, with adult support.	<p><i>In kindergarten through second grade, children build their understanding that heating or cooling a substance may cause observable changes, some of which are reversible and some of which are not.</i></p> <p>2-PS1-4. Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.</p>	<p><i>In third through fifth grade, children build their understanding that when two or more different substances are mixed, a new substance with different properties may be formed and that no matter the change in the properties, the total weight of substances does not change.</i></p> <p><i>No standards in third grade focus on these physical science disciplinary core ideas. Related standards are found in fifth grade.</i></p>

Learning Progression 3.3: Force and Motion

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
PTK.Early.2.4. Observe and describe the way objects' speed and direction change and explore the effect of their own actions (for example, pushing, pulling, rolling, dropping) on making objects move or stop.	PTK.Later.2.4. Make and test predictions about how objects change direction, speed, or the distance they go and, based on observations, explain why objects start, stop, or change direction or speed.	<p><i>In kindergarten through second grade, children build the understanding that pushes and pulls can have different strengths and directions: pushing or pulling on an object can change the speed or direction of its motion and start or stop it, and when objects touch or collide, they push on one another, which can change their motion.</i></p> <p>K-PS2-1. Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.</p> <p>K-PS2-2. Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.</p>	<p><i>In third through fifth grade, children expand their understanding that forces acting on an object have both strength and direction. They also learn that objects in contact exert forces on each other. They learn that patterns of an object's motion can be observed and measured and when past motion exhibits a regular pattern, future motion can be predicted from it.</i></p> <p>3-PS2-1. Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.</p> <p>3-PS2-2. Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.</p>

Learning Progression 3.4: Light and Sound Waves

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
PTK.Early.2.2. Explore sound, light, and shadows by manipulating objects and materials and by using their senses, during play and collaborative investigations, with adult support.	PTK.Later.2.2. Explore and describe changes in the properties of sound, light, and shadows by manipulating different objects and materials during play and collaborative investigations, with adult support.	<p><i>In kindergarten through second grade, children build their understanding that sound can make matter vibrate and vibrating matter can make sound. They also learn that objects can be seen only when light is available to illuminate them. They learn that some materials allow light to pass through, others allow only some light through, and others block all the light and create a dark shadow on any surface beyond them.</i></p> <p>1-PS4-1. Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.</p> <p>1-PS4-2. Make observations to construct an evidence-based account that objects in darkness can be seen only when illuminated.</p>	<p><i>In third through fifth grade, children build their understanding that waves are regular patterns of motion, waves of the same type can differ in amplitude and wavelength, and an object can be seen when light reflected from its surface enters the eyes.</i></p> <p><i>No standards in third grade focus on these physical science disciplinary core ideas. Related standards are found in fourth grade.</i></p>

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Learning Progression 3.4: Light and Sound Waves

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
		<p>1-PS4-3. Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.</p> <p>1-PS4-4. Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.</p>	

Learning Progression 3.5: Energy

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
PTK.Early.2.5. Demonstrate an awareness that things (living and nonliving) use different sources of energy to function, with adult support.	PTK.Later.2.5. Demonstrate an awareness of the different sources of energy that things (living and nonliving) need and describe the changes they observe as a result of these sources of energy, with adult support.	<p><i>In kindergarten through second grade, children build their understanding that sunlight warms Earth’s surface.</i></p> <p>K-PS3-1. Make observations to determine the effect of sunlight on Earth’s surface.</p> <p>K-PS3-2. Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.</p>	<p><i>In third through fifth grade, children build their understanding that energy is present whenever there are moving objects, sound, light, or heat.</i></p> <p><i>No standards in third grade focus on these physical science disciplinary core ideas. Related standards are found in fourth grade.</i></p>

Key Area 4: Earth and Space Science

Learning Progression 4.1: Characteristics of Earth Materials and Systems

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards*	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
PTK.Early.4.1 Investigate and describe the characteristics (for example, size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air.	PTK.Later.4.1 Investigate and describe the characteristics of earth materials and compare and contrast materials based on their different features (for example, size, weight, shape, color, texture).	<p><i>In kindergarten through second grade, children build their understanding that wind and water can change the shape of the land. They also learn that water is found in the ocean, rivers, lakes, and ponds and can exist as solid ice or in liquid form. They learn that maps show the shapes and kinds of land and water in any area.</i></p> <p>2-ESS2-1. Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.</p>	<p><i>In third through fifth grade, children build their understanding that rainfall, water, ice, wind, living organisms, and gravity shape the land and affect living things found in a region. They also learn about Earth's major systems and how they interact to affect Earth's surface materials and processes.</i></p> <p><i>No standards in third grade focus on these earth and space science disciplinary core ideas. Related standards are found in fourth and fifth grade.</i></p>

* CA NGSS progression statements in this table are adapted from the Performance Expectations in the CA NGSS, also summarized in appendix 1 in the *Science Framework*.

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Learning Progression 4.1: Characteristics of Earth Materials and Systems

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
		2-ESS2-2. Develop a model to represent the shapes and kinds of land and bodies of water in an area. 2-ESS2-3. Obtain information to identify where water is found on Earth and that it can be solid or liquid.	

Learning Progression 4.2: Earth's Place in the Universe

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
PTK.Early.4.2. Observe and describe natural objects in the sky (sun, moon, stars, and clouds) and how they appear to move and change.	PTK.Later.4.2. Observe and describe natural objects in the sky and describe patterns of movement and apparent changes in the sun, moon, stars, and clouds.	<p><i>In kindergarten through second grade, children expand their understanding that patterns of the motion of the sun, moon, and stars in the sky can be observed, described, and predicted. They also learn that seasonal patterns of sunrise and sunset can be observed, described, and predicted.</i></p> <p>1-ESS1-1. Use observations of the sun, moon, and stars to describe patterns that can be predicted.</p> <p>1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year.</p>	<p><i>In third through fifth grade, children build their understanding that the sun is a star and that stars range in their distance from Earth. They also learn that the orbits of Earth around the sun and of the moon around Earth, together with the rotation of Earth about an axis, cause observable patterns, such as day and night, daily changes in the length and direction of shadows, and the positions of the sun, moon, and stars at different times of the day, month, and year.</i></p> <p><i>No standards in third grade focus on these earth and space science disciplinary core ideas. Related standards are found in fifth grade.</i></p>

Learning Progression 4.3: Weather and Climate

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
<p>PTK.Early.4.3. Notice and describe changes in weather. Notice the effects of weather and seasonal changes on their own lives and on plants and animals.</p>	<p>PTK.Later.4.3. Observe and describe changes in weather and provide examples of the effects of changes in weather and seasons on their own lives and on plants and animals.</p>	<p><i>In kindergarten through second grade, children expand their understanding that weather is the combination of sunlight, wind, snow or rain, and temperature in a region at a particular time. They also learn that people measure these conditions to describe and record the weather to notice patterns over time.</i></p> <p>K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.</p>	<p><i>In third through fifth grade, children build their understanding that climate describes a range of an area's typical weather conditions and the extent to which those conditions vary over the years. They also learn that scientists record patterns of the weather across different times and areas so that they can make predictions about what kind of weather might happen next.</i></p> <p>3-ESS2-1. Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.</p> <p>3-ESS2-2. Obtain and combine information to describe climates in different regions of the world.</p>

Learning Progression 4.4: Earth and Human Activity

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
PTK.Early.4.4. Notice, with adult prompting and support, how humans' actions and use of resources impact the environment and their community; participate in activities related to caring for the environment.	PTK.Later.4.4. Investigate, with adult support, how humans' actions and use of resources impact the environment and their community, discuss in simple terms how to care for the environment, and participate in activities related to its care.	<p><i>In kindergarten through second grade, children expand their understanding that humans use natural resources for everything they do. They also learn that the things that people do to live comfortably can affect the world around them and that people can make choices that reduce their impacts on the land, water, air, and other living things.</i></p> <p>K-ESS3-3. Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.</p>	<p><i>In third through fifth grade, children build their understanding that the energy and fuels that humans use are derived from natural sources and their use affects the environment in multiple ways. They also learn that human activities have major effects on the land, vegetation, streams, ocean, air, and even outer space and individuals and communities are doing things to help protect Earth's resources and environments.</i></p> <p><i>No standards in third grade focus on these earth and space science disciplinary core ideas. Related standards are found in fourth and fifth grade.</i></p>

Key Area 5: Engineering, Technology, and Applications of Science

Learning Progression 5.1: Engineering Design

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards*	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
<p>PTK.Early.5.1. Engage collaboratively with peers and adults in the engineering design cycle by identifying problems in play and everyday activities, by planning and creating simple solutions, and, with adult support, by testing and refining their solutions.</p> <p>PTK.Early.5.2. Notice and explore how tools and design solutions help address their own and other people’s needs and goals in everyday life.</p>	<p>PTK.Later.5.1. Engage collaboratively with peers and adults in the engineering design cycle by identifying problems in play and everyday activities, by planning and creating more detailed solutions and by testing and refining their solutions more independently and over longer periods of time.</p> <p>PTK.Later.5.2. Explore in more detail how tools and design solutions help address their own and other people’s needs and, with adult support, develop different solutions to address the needs of their families and communities.</p>	<p><i>In kindergarten through second grade, children expand their understanding that what people want to change or create can be approached as a problem to be solved through engineering. They deepen their understanding that because there is always more than one possible solution to a problem, it is useful to compare and test designs. They also convey their designs through sketches, drawings, or physical models.</i></p> <p>K–2-ETS1-1. Ask questions, make observations, and gather 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.</p>	<p><i>In third through fifth grade, children build their understanding that possible solutions to a problem are limited by available materials and resources (constraints) and the success of a designed solution is determined by considering the desired features of a solution (criteria). They also learn to test different solutions by comparing how well each one meets the specified criteria or constraints of a problem.</i></p> <p>3–5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.</p>

* CA NGSS progression statements in this table are adapted from Performance Expectations in the CA NGSS.

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Learning Progression 5.1: Engineering Design

Preschool/Transitional Kindergarten Learning Foundations		California Next Generation Science Standards	
3 to 4 ½ Years Old	4 to 5 ½ Years Old	Kindergarten Through Grade 2	Grade 3
		<p>K–2-ETS1-2. Develop 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.</p> <p>K–2-ETS1-3. Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.</p>	<p>3–5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p> <p>3–5-ETS1-3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.</p>