



# A APPROACHES TO LEARNING

## Kindergarten to Grade 3 Guide



**Marilou Hyson, Ph.D.**  
**Consultant, New Jersey Department of Education**



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# INTRODUCTION

As a teacher in kindergarten and the primary grades, you know that children's progress depends greatly on their motivation, interest, persistence, and ability to plan their work and manage their emotions. Just as New Jersey educators are guided by standards in areas like literacy and mathematics, expectations are needed for the critically important domain of Approaches to Learning. This Guide describes each of the core expectations and indicators; defines Approaches to Learning and explains how these competencies connect with other aspects of development; describes why Approaches to Learning competencies are so important for K-3 children; gives you grade-by-grade examples of how children demonstrate these competencies; and lists many examples of ways that you can support children's EPPIC skills: engagement in learning, their planning and problem-solving, and their initiative and creativity.

## **Implementing Approaches to Learning for K-3 Students: What's Here to Help You**

This Guide has many features intended to help K-3 teachers provide children with what they need to be successful learners, using the EPPIC skills of Engagement, Planning and Problem Solving, and Initiative and Creativity. At various places in the Guide, you will find:

- Vignettes illustrating the importance of approaches to learning in the lives and learning of individual students.
- "What's So Important About . . . ?"—3 boxes, each of which briefly explains the importance of one of the components of Approaches to Learning.
- "Yes, But . . ." boxes with questions or concerns that might be raised by administrators, colleagues, or families—with answers you can use.
- Examples of "Remodeled Lessons" that continue to strengthen children's competence in specific content standards and curriculum areas while at the same time promoting skills in the three components of Approaches to Learning.
- EPPIC child behaviors, grade-by-grade: Examples of children's demonstrations of competence in each ATL component: Engagement; Planning and Problem-Solving; and Initiative and Creativity.
- Teacher supports, grade-by grade: Examples of specific ways that teachers can support growth in each ATL component.
- Research evidence that shows why ATL are so important for overall development and learning, AND how teachers' everyday supports can strengthen each child's ATL.

You may notice that the K-3 Approaches to Learning or EPPIC Skills are similar to but not exactly the same as New Jersey's Approaches to Learning standards for birth to age 3 and preschool. The K-3 standards are also organized somewhat differently than Approaches to Learning in the few other states that have K-2 or K-3 standards in this domain. All the important aspects of Approaches to Learning are here, but the expectations and indicators are organized to be (a) easy for teachers and administrators to understand and remember—only 3 expectations with a few indicators under each, as compared with as many as 5 standards and many more indicators in some other states—and (b) easily aligned with New Jersey's K-3 content standards and curriculum emphases.

## INTRODUCTION

### **EPPIC Skills: Core Expectations for Approaches to Learning, Kindergarten to Grade 3**

#### **1. Engagement: Demonstrates effortful, persistent engagement in learning activities.**

##### **Indicators**

- ✓ Becomes involved in a variety of classroom activities
- ✓ Sustains attention despite distractions
- ✓ Persists in activities

#### **2. Planning and Problem-Solving: Demonstrates the use of planning and problem-solving strategies to achieve goals.**

##### **Indicators**

- ✓ Plans work to accomplish learning tasks
- ✓ Uses varied, flexible strategies to deal with problems
- ✓ Shows appropriate self-regulation and resilience in the face of challenges

#### **3. Initiative and Creativity: Demonstrates initiative, independence, and creativity in new, challenging learning situations.**

##### **Indicators**

- ✓ Challenges self by trying out a variety of learning experiences
- ✓ Tries to broaden and deepen own learning
- ✓ Finds new connections across different ideas and learning tasks





# What Are “Approaches to Learning”?

## A Tale of Three Children

We begin this Approaches to Learning Guide with descriptions of three children, Marta, Joe, and Taniesha. We meet them in the first weeks of their new school year. Perhaps their stories, and their challenges, will sound familiar.

**Marta** has just begun first grade. Her family has recently moved from Mexico, and Marta is still learning English. She has already made friends in the class and loves playing with them in the dramatic play area and doing anything with markers and crayons. Although her teacher Ms. Abel’s preliminary assessment indicates that Marta already has many competencies to support language and literacy development in her home language and in English, so far Marta has tried to avoid involvement in most of the class’s literacy-related activities. She seems to have difficulty paying attention if something more interesting presents itself. If she participates, she usually gives up quickly, saying that she doesn’t know the answer, cannot do the activity, or is too tired to keep working.

**Joe** is a third grader with an eager attitude. Every day he comes to class with a big smile and “Hello!”—ready to jump into whatever Mr. Kennedy has planned. The problem is that he doesn’t think before he acts. For example, the class is beginning to become involved in an in-depth project<sup>1</sup> on transportation in their city, integrating literacy, math, and social studies. During extended periods of the day, small groups work in learning centers or “worksites,” each with a different specific focus within the transportation theme. His teacher encourages the children to choose where they will spend their time, but Joe tries to do everything at once—and then becomes frustrated when his too-ambitious plans don’t work out well. As a result, his work, although showing great potential and creativity, is never well-organized and seldom completed.

**Taniesha** has very strong academic skills compared to many of her kindergarten classmates, at least at this point in the year. Her teacher, Ms. Henry, finds that she has few problems completing literacy and math activities correctly. She follows directions and tries to help others who may be struggling. However, Taniesha seldom takes the initiative, even when choices are offered. Most of the time, she sticks to what she already knows and always waits for her teacher to give directions. When it’s time for learning centers, Taniesha gravitates toward a few where she feels comfortable. In class, Tanisha doesn’t ask many questions, but when she does her questions are factual. She rarely tries to explore new ideas or new ways of using materials.

In the years from kindergarten through Grade 3, children are expected to develop competence in academic areas: language and literacy, mathematics, science and technology, and social studies. However, these vignettes show that academic competence needs strong support from other areas of children’s development. Marta, Joe, and Taniesha all have the potential to be capable young learners, but each of them has difficulty becoming deeply engaged, planning and following through, or exercising initiative in learning and creative thinking. Without these competencies, their academic skills are unlikely to develop as well as they might, and their motivation and enthusiasm for learning are unlikely to grow.

## What Are “Approaches to Learning”?

**Different names for these competencies, but agreement that they are essential.** People have called these competencies by different names. Here we call them “Approaches to Learning,” a term that has been used by many states. In this guide we also use the acronym EPPIC Skills to make these core competencies easier to remember. Starting in the 1980s, experts identified “Approaches to Learning” as one of the key areas of school readiness, along with preschoolers’ physical, cognitive, social and emotional development. Some researchers have used the term “learning behaviors,” both for preschoolers and older children. Other writers have used phrases like “executive functions,” “habits of mind,” “grit,” “non-cognitive abilities,” and “soft skills” to describe these characteristics in the children’s lives. In New Jersey, many of these skills are represented in the New Jersey Career Ready practices (<http://www.state.nj.us/education/cte/hl/CRP.pdf>) and have been identified as essential by New Jersey’s business community (<http://www.njbja.org/docs/default source/galinks/NJBIAWorkforceAgenda2014.pdf?sfvrsn=0>).

So there are different names but strong agreement that Approaches to Learning—EPPIC Skills—are important throughout the school years and in later life. For early childhood educators, the most important questions are:

- ? What do these skills look like in children from kindergarten through grade 3? and**
- ? How do educators support the development of these skills?**





# Approaches to Learning, Cognitive Development, Social-Emotional Development, and “SEL”

The Approaches to Learning competencies that your K-3 children develop are closely connected with, but are not the same as, their cognitive and social-emotional competencies. For example, engagement is an essential element of children’s approaches to learning. Children who are deeply engaged in learning experiences certainly have an emotional commitment to what they are doing. Engagement also depends on children’s cognitive ability to identify, focus on, and solve the problems that learning experiences can present. However, Approaches to Learning competencies are important enough to deserve their own unique position in children’s development. The following image illustrates these overlapping connections:



## “SEL,” or Social-Emotional Learning:

### What Is It, and How Does It Connect to Approaches to Learning?

According to CASEL, the Collaborative for Academic, Social, and Emotional Learning ([www.casel.org](http://www.casel.org)), social and emotional learning (SEL) is the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions.

The New Jersey Department of Education has established a Working Group to develop core competencies and indicators for SEL from kindergarten through Grade 12. New Jersey’s SEL Core Competencies include:

- Self-Awareness
- Self-Management
- Social Awareness
- Responsible Decision-Making
- Relationship Skills

**ATL and SEL: Partners in Learning in School and in Life.** The SEL Working Group is in close communication with the work on K-3 Approaches to Learning standards and teacher guidance. SEL and Approaches to Learning expectations can and should support one another. For example, competencies in **“Social Awareness”** (an SEL competency) can help children become competent in **“Planning”** (an ATL competency), because planning and problem-solving strategies are more effective when children are sensitive and respectful of classmates’ perspectives. Similarly, as teachers help children develop their skills in the ATL competency of **“Engagement”** (effortful, persistent engagement in learning activities), they are likely to strengthen several SEL areas at the same time, including **“Self-Management.”**

It’s also important to remember that both Approaches to Learning and Social-Emotional Learning support children’s academic progress and prepare them for New Jersey’s Career Ready Practices.

Throughout this Approaches to Learning Guide, you’ll see examples of how teachers can strengthen the connections across these key areas of children’s development, and how all of these support and are integrated into implementation of K-3 standards for literacy, math, science and technology, and social studies.

# Why Are Approaches-to-Learning Competencies So Important for Children in K-3?

Your own teaching experience, and the examples of Marta, Joe, and Taniesha, reinforce the belief that children need to become engaged in learning, persist at difficult tasks, explore new experiences with curiosity, make and implement plans, and develop other EPPIC Skills. Of course, positive Approaches to Learning are valuable in themselves, but they also predict children's competence in other areas of development and learning. A few examples from research:

- Children who show greater engagement in kindergarten learning tasks are likely to develop a higher level of academic skill in later years.
- Children's early self-regulation abilities predict later success in areas such as math.
- Strong "competence motivation"—being involved in learning for the purpose of becoming more capable—often leads to better academic outcomes.
- Children who develop a "growth mindset," believing that their abilities can grow rather than being fixed, are more likely to take on challenging academic tasks.
- Children who are motivated to read—who are behaviorally engaged or dedicated to reading—usually develop higher levels of reading competence over time.

The References at the end of this document include many studies that have found these kinds of connections. It's clear, then, that if we want to help children meet challenging academic standards, we must intentionally support their development of the EPPIC competencies included in Approaches to Learning.



# How Do Teachers Support Approaches-to-Learning Competencies?

Some people think that children are simply born with different levels of Approaches to Learning. They may think that certain children are just more motivated, more eager, or more persistent than others. That is not the case: Although genetics or inborn temperament may play a small role, for the most part children's Approaches to Learning are a product of their environments. Experiences that children have, especially in the early years, help build—or, at times, undermine—these competencies.

**In providing experiences that will promote Approaches-to-Learning skills for each and every child, teachers are the key.** Certainly, children will arrive in your classroom with great variations in their approaches to learning. Joe had a hard time focusing and following through even in preschool; in contrast, his classmate Aaron never gives up no matter how hard the task is for him. However, the kindergarten and primary-grade years are a wide-open window of opportunity. Your intentional efforts to create ATL-supportive classroom environments and interactions can pay off with more engaged, planful, curious, and motivated children. And, in turn, these characteristics will help children gain competencies in every other area of their development and learning: A child who has learned strategies to help her persist will be able to stick with new, difficult math challenges such as those posed in the Common Core; a child whose self-regulation abilities have improved because of your efforts will be better prepared to make and sustain positive relationships with classmates even in the face of conflicts. These strategies will serve students well throughout the later years of school, as you can see in this video of an award-winning high school robotics team [link].

**Teachers Are the Key: Evidence from Research.** We have overwhelming evidence about the critically important role of classroom teachers in promoting children's Approaches to Learning. Here are illustrations of this research, with classroom examples adapted from the First, Second, and Third Grade Implementation Guide. Citations may be found in the References.

- Teaching approaches that strengthen children's executive functions lead to improved math competence.

*[First grade teacher Ms. Abbott has introduced a daily "planning time," when each child describes what he or she will accomplish during their work time, representing the plan by writing and drawing. Planning, implementing, and flexibly modifying plans are all executive functions essential for academic competence, including math competence.]*

- When content is taught through activities that children find inherently enjoyable (such as small-group work), their intrinsic motivation to learn increases.

*[At the beginning of a class project about communities, Ms. Jackson creates small groups to brainstorm questions they might ask when interviewing community members. In their groups, even the quieter students offer creative ideas, which are then shared with the whole class.]*

- Close relationships between teachers and children have positive effects on both engagement and achievement.

*[Mr. Mendez often shares his enthusiasm for baseball with his similarly baseball-obsessed third graders. Often disengaged from academic work in the past, these children are working harder this year, eager to receive their teachers' approval.]*

- Especially early in the school year, teachers who use daily routines to build children's self-regulation (they know what to do without being told) find that students are more deeply engaged throughout the year.

*[Kindergarten teacher Mr. Davis invests much time during the first weeks of school building the children's comfort and confidence in the daily routine. Individual, small group, and class responsibilities are practiced and reinforced with picture schedules and other visual reminders.]*



## How Do Teachers Support Approaches-to-Learning Competencies?

- Teachers who intentionally model characteristics like enthusiasm for learning, persistence, and self-regulation influence those qualities in the children.

*[Ms. Donatello is learning to knit. She sometimes brings her knitting to class and shows the students what she is doing, including her mistakes and her strategies for problem-solving as she persists in trying to finish the scarf for her son.]*

- Supporting children's autonomy by allowing children to make choices leads to greater engagement and achievement in academic subjects.

*[As a class of second graders was learning about their town and the town where their pen pals lived, their teacher encouraged different groups of children to choose different media to communicate with the pen pal class: some learned how to do a podcast; others used Word to write a letter; and another group created a Power Point about their town.]*

- Acknowledging children for their hard work and improvement, not just children's performance, predicts higher levels of effort over time.

*[Ms. Kim intentionally and frequently uses specific language to affirm the value of children's efforts—"I know this part of our math curriculum has been really challenging, but let's look at all the things you have learned this week. I noticed how hard you were working on those problems, and see—it paid off!"]*

- Teachers' consistent emotional support promotes children's positive feelings and motivation to learn.

*[Although she would not consider herself a "touchy-feely" person, Ms. Palkow's warm, quiet voice and personally encouraging manner constantly show that she values, knows, and understands each member of the class. The result is a happy place in which to work and learn together.]*

**As a busy teacher, it's important for you to know that most supports for Approaches to Learning can be built into what you already do.** Looking at the examples, you'll see that some supports come from your everyday relationships with children; others have to do with teaching and learning strategies; and others are related to how the classroom environment and curriculum are organized. As you implement curriculum that addresses every content area, you will see how strategic choices about curriculum-related activities and interactions can increase children's engagement, planning skills, and initiative. Appendix A illustrates how one teacher's social studies curriculum project on "Communities" (described in detail in the "New Jersey First, Second, and Third Grade Implementation Guide") is strengthening EPPIC skills at the same time that it builds competencies in multiple standards areas.



## How Do Teachers Support the Growth of EPPIC Skills?

### Individual and Cultural Differences in Approaches to Learning



In the next section of this Guide, you will see lists of children's expected behaviors grade by grade, for each of the three core components of K-3 Approaches to Learning. These expectations are useful, but you should keep a few cautions in mind:

Individual children's development varies a great deal—in Approaches to Learning as well as in other domains. You will see all children in your class make progress, but even at the end of the year some children's behavior may still be more typical of a child in a lower grade. This slower progress may reflect a specific disability, or it may reflect a more general delay in this area of development. For example, some children may enter your class with very few experiences that have supported their EPPIC skills (Engagement; Planning and Problem-Solving; Initiative and Creativity). The supports you provide in school, as suggested in this Guide, will help. To scaffold some children's progress, you may find that the suggested supports for lower grades are a better fit, at least for a while.

A child's culture may also influence how he or she demonstrates some Approaches to Learning. For example, some cultures value individual initiative more than others. Some children, who may be growing up in families that strongly value interdependence and collaboration, may be more comfortable showing initiative as part of their contribution to group projects rather than in a solo activity. Knowing the cultural norms and appropriate behaviors for the children and families you serve will help you understand and encourage positive Approaches to Learning, but in a way that is responsive to each child's culture.

#### The Bottom Line:

**Positive approaches to learning are essential for every child's development and school success. Teachers can ensure progress by paying attention to children's individual characteristics and cultural contexts.**



# Approaches to Learning Components, Child Behaviors, and Teacher Supports

## Component 1: Engagement

**Definition:** Demonstrates effortful, persistent involvement in learning activities.

**Indicators:**

- Becomes involved in a variety of classroom activities
- Sustains attention despite distractions
- Persists in activities

### Six Months Later: Marta Revisited

At the beginning of the year, Marta did her best to avoid most of the first grade literacy activities. She had trouble persisting and focusing, and only enjoyed being part of a few activities, such as dramatic play and art work. Now, six months later, her teacher sees real growth in Marta's engagement as well as significant development of her language and literacy skills in her home language and in English. Marta's active involvement has now expanded to a greater number of activities, and even when these are challenging Marta does not give up so easily. What's happened? Many things. Her teacher Ms. Abel has made a special effort to develop a warm relationship with Marta and her family, which has seemed to foster Marta's willingness to try things that are hard for her. Ms. Abel has also used Marta's creative talents to connect with specific literacy competencies—for example, a recent project on legends and fairy tales tapped into Marta's creative abilities while encouraging deeper, more focused engagement. Ms. Abel has created more frequent, and longer, small group times than in the past, making it easier for Marta and other children to stay focused than in whole-group literacy activities. Marta seems proud of her own ability to concentrate and persist—a new favorite phrase is, "It was hard, but I did it!"



## Approaches to Learning Components, Child Behaviors, and Teacher Supports

### What's So Important about Engagement?

Think about your proudest accomplishments, whether in your work or other interests. Those accomplishments were fueled by hours, days, weeks, and often years of sustained, deep effort. Feelings of curiosity and keen desire to learn more motivated you to keep going, even when the going was tough.

“Engagement” is one way to describe this experience of immersion in learning. From early childhood onwards, when learners become fully engaged, the results are striking. Both typically developing children and children with disabilities benefit when they spend more time engaged—and more deeply engaged—in worthwhile activities. Researchers who study engagement find great variations in children’s levels of engagement, and those variations predict how much children will learn. A positive cycle is set up: children’s emotional, cognitive, and behavioral engagement help them master important content, and their feelings of accomplishment from that learning motivate them to continue and deepen their engagement.

As children move into secondary school, engagement remains critically important. Not surprisingly, high school students who report greater engagement in school are more likely to stay in school even if other factors predict that they may drop out. As adults in the workplace, success often depends on persistence, on staying focused and curious, whether the work is as a scientist, an entrepreneur, a health professional, or an educator.

The good news, as with all aspects of Approaches to Learning, is that engagement is not an inborn trait that some children have and others do not. Developmental and educational research are clear that both family and school environments can build and sustain engagement, feeding children’s intrinsic motivation, excitement about learning, and persistence in challenging academic tasks.

In this section of the Approaches to Learning Guide we describe expected child behaviors that demonstrate engagement, and we share examples of teacher supports for this essential learning behavior.



## Approaches to Learning Components, Child Behaviors, and Teacher Supports

### Examples of Child Behaviors Demonstrating Engagement, Grade by Grade

Kindergarten	Grade 1	Grade 2	Grade 3
<ul style="list-style-type: none"> <li>• Concentrates on a specific learning activity for extended periods of time, especially if activity is of personal interest.</li> <li>• Listens with attention for brief periods.</li> <li>• Perseveres at tasks with adult support.</li> <li>• Shows social competences that will help the child become involved in collaborative learning activities.</li> <li>• Recalls and carries out simple directions.</li> </ul>	<ul style="list-style-type: none"> <li>• Begins to be able to focus on tasks assigned by others.</li> <li>• Listens with attention for longer periods.</li> <li>• With support, begins to be able to shift focus of attention when needed (transitions to new lesson or activity or topic).</li> <li>• Accepts redirection when focus of attention is not appropriate to the situation.</li> <li>• Intentionally sets up own learning situation to avoid or minimize distraction (e.g., choosing quiet corner of classroom to write).</li> <li>• Perseveres at academic tasks even when these present challenges.</li> <li>• Resists temptation to abandon involvement in a group activity that does not interest him/her.</li> </ul>	<ul style="list-style-type: none"> <li>• Stays focused on tasks for longer periods of time.</li> <li>• Remembers and consistently applies directions.</li> <li>• Shifts focus of attention with minimal prompting from adults.</li> <li>• Uses skills in reading and math for a wider variety of purposes.</li> <li>• Perseveres at difficult academic tasks in class and in home assignments.</li> <li>• Shows pleasure at own ability to remain focused or to persevere when learning tasks are difficult.</li> <li>• Often demonstrates a self-image as a persistent, effective learner.</li> </ul>	<ul style="list-style-type: none"> <li>• Sustains involvement in complex learning activities extending over several weeks or more.</li> <li>• Works collaboratively with classmates exerting collective effort on learning activities.</li> <li>• Uses academic skills flexibly for multiple purposes.</li> <li>• Encourages other children become engaged or stay focused on learning activity that they are working on together.</li> <li>• In extended group discussions keeps focus on the topic with pertinent questions and responses.</li> <li>• Consistently demonstrates self-image as persistent, effective learner.</li> </ul>

## Approaches to Learning Components, Child Behaviors, and Teacher Supports

### Examples of Examples of Teacher Supports for Engagement, Across Grades and Grade by Grade

#### To Promote Engagement: Supports Across All Grades

- Emphasize frequent small group activities
- Schedule substantial blocks of time to allow deeper engagement
- Acknowledge children's effort and persistence
- Adjust engagement expectations to align with children's individual and developmental characteristics.
- "Remodel" some of the specifics of existing lessons to increase the opportunities for deeper engagement, persistence, and focused attention. (See Appendix B for examples of remodeled lessons.)

Kindergarten	Grade 1	Grade 2	Grade 3
<ul style="list-style-type: none"> <li>• Create expectable classroom routines and responsibilities to maximize time available for deeper and longer engagement.</li> <li>• From early in the year, develop individual supportive relationships with children (known to predict greater engagement and persistence).</li> <li>• Praise children's hard work and persistence even if relatively brief.</li> <li>• Suggest strategies individual children can use to help themselves pay attention.</li> <li>• Model strategies for focusing and sustaining one's attention and resisting distractions.</li> <li>• Provide many opportunities for children to make choices, which promotes attention and engagement.</li> <li>• Play games that help develop children's focused attention</li> <li>• Keep expectations for attention brief enough that children will experience success.</li> <li>• Create cues to prompt children's focused attention or shifts in attention—picture schedules, verbal prompts, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Within lessons, create opportunities for students to shift focus of their attention or level of engagement (varied instructional strategies).</li> <li>• Praise/describe children's demonstrations of effort and persistence (rather than focusing primarily on performance).</li> <li>• Create the kinds of tasks that inherently build deeper engagement in learning (e.g., reading tasks that involve responding to texts, not just isolated practice).</li> <li>• Help children internalize cues and reminders to engage or focus attention.</li> <li>• Find and read stories illustrating value of persistence in the face of difficulties.</li> </ul>	<ul style="list-style-type: none"> <li>• Extend expectations for focused attention while acknowledging difficulties and successes.</li> <li>• Continue to provide choices within curriculum, leading to deeper engagement.</li> <li>• Use curriculum (such as literature units or extended social studies projects) to build and document 3 kinds of engagement—behavioral, cognitive, emotional—and engagement at deeper, more sustained levels.</li> <li>• Create projects extending over several weeks or longer.</li> <li>• Use stories about persistence from historical figures, scientific leaders, and others to illustrate its importance.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to intentionally broaden the kinds of experiences children become engaged in.</li> <li>• Challenge children to maintain their focus even in the face of significant distractions.</li> <li>• Increasingly, base projects on the interests of individuals and groups of children (known to foster engagement).</li> <li>• Identify and praise children's use of strategies to keep themselves focused.</li> <li>• Involve children in more complex reading and writing about their own and others' engagement skills and strategies.</li> <li>• Involve children in self-evaluation of their efforts to maintain focus and persistence in academic tasks.</li> </ul>



# Approaches to Learning Components, Child Behaviors, and Teacher Supports

## Component 2: Planning and Problem-Solving

**Definition:** Demonstrates the use of planning and problem-solving strategies to achieve goals

**Indicators:**

- Plans work to accomplish learning tasks
- Uses varied, flexible strategies to deal with problems
- Shows appropriate self-regulation and resilience in the face of learning challenges

### Six Months Later: Joe Revisited

Mr. Kennedy thinks that Joe may always remain the friendly but impulsive, somewhat disorganized little guy that he was in the first weeks of third grade. Nevertheless, his teacher can see real progress for Joe and many of his classmates. The class's focus on in-depth projects has continued, and the quality of Joe's project contributions has improved thanks to the supports Mr. Kennedy began to implement. Every day, the teacher begins with a "project check-in," referring to the planning tools that each child uses to keep track—especially helpful for Joe. In parent conferences, Mr. Kennedy has shared these strategies with Joe's family and others, recommending these for use at home to help children organize out-of-school plans. Joe's teacher also taps into Joe's social skills and leadership potential by often designating him as his team's "master planner." Joe is happily rising to this challenge. Finally, Joe is also making progress in managing his frustration when his first attempt to implement his plans doesn't work. One especially helpful aspect of Mr. Kennedy's program is that the literature curriculum includes books featuring characters who face significant challenges, trying varied strategies to solve their problems. Class discussions help children consider and apply these strategies to their own situations.





## Approaches to Learning Components, Child Behaviors, and Teacher Supports

### What's So Important about Planning and Problem Solving?

Planning and problem-solving are key skills. People who are able to formulate and implement well-organized plans have the foundation for a wide array of competencies.

Children who can plan and carry out their own activities are likely to develop stronger language and cognitive skills. Their planning and problem-solving skills also equip them to deal effectively with social challenges. Planning and problem solving require children to make and test predictions about what is likely to happen, a key characteristic needed in mathematical and scientific thinking.

By encouraging children to make plans and use a varied repertoire of approaches to address difficulties, we can contribute to what Carol Dweck and others have called a “growth mindset”—that is, the belief that one’s own intelligence and other abilities can be grown rather than being predetermined or “fixed.” Having this growth-focused belief (which is not inborn but developed through experiences and supports) is associated with positive outcomes not only in schools but in the corporate world as well. With this mindset, mistakes or temporary failures are seen as learning opportunities, an attitude that is part of scientists’ approach to their work.

Children who are able to learn on their own can be described as self-regulated learners, with the ability to devise plans, adjust their plans when not successful at first, and monitor their own learning. All of these skills are important both for success in simple, everyday tasks and in much broader, in complex challenges that children face as they move through school and beyond.

In this section of the Approaches to Learning Guide we describe expected child behaviors that demonstrate planning and problem solving, and we share examples of teacher supports for these essential competencies.

### Examples of Child Behaviors Demonstrating Planning and Problem-Solving, Grade by Grade

Kindergarten	Grade 1	Grade 2	Grade 3
<ul style="list-style-type: none"> <li>• With adult support, plans own involvement in concrete, short-term play-and-learning activities.</li> <li>• Applies familiar behaviors in new situations.</li> <li>• Begins to make and follow multi-step plans for completing tasks.</li> <li>• With adult support, identifies and tries out different strategies to solve academic and social problems.</li> <li>• Uses concrete methods to regulate own emotional response to frustrating learning situations.</li> <li>• With adult support, able to return to learning activities after frustration or disappointment.</li> </ul>	<ul style="list-style-type: none"> <li>• Develops ways to remember information.</li> <li>• Makes and follows multi-step plans for completing essential tasks.</li> <li>• Describes plan in advance, and what result the plan will lead to .</li> <li>• Modifies plans on the basis of results.</li> <li>• Adapts problem-solving strategies to complete unfamiliar activities, or in new contexts.</li> <li>• Becomes increasingly able to regulate responses to frustration during challenging learning activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Individually and with classmates, thinks about and carries out longer term learning plans of greater complexity.</li> <li>• Develops written plans with strategies and expected results.</li> <li>• Makes and follows sequential plans.</li> <li>• Evaluates original plan and makes changes as needed</li> <li>• Is increasingly capable and reflective about how to anticipate and cope with frustration.</li> </ul>	<ul style="list-style-type: none"> <li>• Individually and with classmates, develops and systematically implements long-term, multi-part learning plans.</li> <li>• Evaluates and modifies plans to achieve goals.</li> <li>• Uses reflection on results of problem-solving and flexibly implements different approaches.</li> <li>• Uses appropriate coping strategies to deal effectively with significant frustration and challenge in learning activities.</li> <li>• Anticipates possible problems and plans solutions in advance.</li> </ul>

## Approaches to Learning Components, Child Behaviors, and Teacher Supports

### Examples of Teacher Supports for Planning and Problem-Solving, Across Grades and Grade by Grade

#### To Promote Planning and Problem-Solving: Supports Across All Grades

- Build in time for children to develop individual and group plans.
- Provide multiple ways for children to represent their plans—in words, in writing, in drawing, etc.
- Help children think about, talk about, use, and evaluate strategies to solve academic and social problems.
- As needed, give children emotional and practical supports to help their academic and social problem-solving efforts.
- Use a variety of discussions, games, and stories to help children learn flexibility in applying different strategies or rules: “What might work here?”

Kindergarten	Grade 1	Grade 2	Grade 3
<ul style="list-style-type: none"> <li>• Every day, create a routine that helps children practice concrete planning—e.g., which learning center will I choose to begin Activity Time?</li> <li>• Use small groups for Planning Time.</li> <li>• Support children in drawing pictures of their plans (“Playing with Blocks”) or writing a few words about their plan.</li> <li>• Use group time later in the day to review and discuss children’s plans.</li> <li>• Use self-talk to model how to plan (“After school today I’m going to pick up my twins and go grocery shopping. I think I need a list.”).</li> <li>• When children are “stuck,” encourage them to come up with own solutions before jumping in.</li> <li>• Help children put their problem and possible solutions into words, verbalizing it for them if needed.</li> <li>• Help children increase their “problem solving” vocabulary and language (e.g., I’m really frustrated; I’m annoyed because this isn’t working, etc.).</li> </ul>	<ul style="list-style-type: none"> <li>• Use follow-up questions to encourage children to describe the problems they are dealing with, using increasingly complex language.</li> <li>• Continue to provide hints and scaffolded support when children’s problem-solving attempts are not working.</li> <li>• Encourage children to use classmates as resources when trying to make or implement plans (“Maybe Josue has some ideas you can try; last week he was working with that . . .”).</li> <li>• Continue to structure children’s individual development of their daily “Learning Plans” using writing skills.</li> <li>• Continue to emphasize opportunities for collaborative planning in small groups (research shows this is especially helpful for younger children).</li> </ul>	<ul style="list-style-type: none"> <li>• Explicitly teach children steps in problem-solving, as used by inventors, scientists, and others (e.g., sequence of [a] identifying the problem; [b] gathering information; [c] modeling and analyzing possible solutions; [d] trying out and analyzing solutions; [e] communicating about the solution to others using multiple means of representation.<sup>2</sup></li> <li>• Encourage children to elaborate on their plans by asking them questions to add depth (e.g., “What are some other ideas about how your group can share what you are learning about clouds?”).</li> </ul>	<ul style="list-style-type: none"> <li>• Create opportunities within the curriculum for small groups of children to develop and implement plans—for example, to research a topic in social studies.</li> <li>• Support children’s use of planning folders, wall charts, and other planning tools, including electronic media.</li> <li>• Create routines in which children self-evaluate the effectiveness of their plans (for example, for getting homework submitted on time) and brainstorm alternate approaches.</li> <li>• Encourage children to think ahead about problems they may encounter and various ways that the problems might be addressed.</li> </ul>

<sup>2</sup>In Stone-Macdonald et al., *Engaging young engineers*, the authors use the following shorthand description for young children’s planning and problem solving cycle: “Think About It; Try It; Fix It; Share It.”

# Approaches to Learning Components, Child Behaviors, and Teacher Supports

## Component 3: Initiative and Creativity

**Definition:** Demonstrates initiative, independence, and creativity in new, challenging learning situations

**Indicators:**

- Challenges self by trying out a variety of learning experiences
- Tries to broaden and deepen own learning
- Finds new, innovative connections across different ideas and learning tasks.

### Six Months Later: Taniesha Revisited

Ms. Henry sees that Tanisha's development has accelerated and broadened quite a bit, especially in the last month or so. Taniesha has a cautious temperament, so it has taken a while for her to respond to Ms. Henry's supports. She's now branching out into more innovative ways of using materials, and she is more eager to act independently instead of always waiting for directions. Taniesha's curiosity, which had been hidden early in the year, is peeking out now, although still mostly during familiar activities. To promote the children's initiative and innovative thinking, Ms. Henry has redesigned or "remodeled" a number of lessons that she's used for years. Both in whole groups and small groups, the remodeled lessons encourage children to experiment and try out new ideas. A recent math estimation activity using pumpkin seeds is just one example. Ms. Henry's frequent questions, such as "What's another way you could do this?" and her interested acknowledgement of children's initiative and innovation seem to be giving children—including Taniesha—the confidence to step beyond their comfort zones to take risks in their learning.



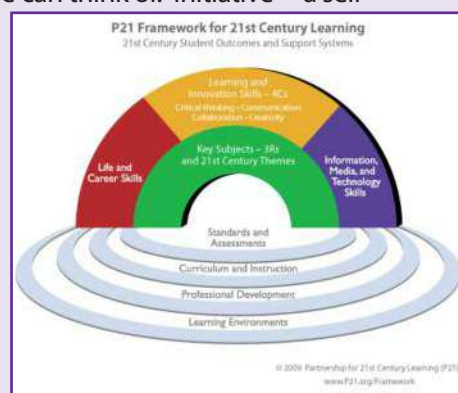
## Approaches to Learning Components, Child Behaviors, and Teacher Supports

### What's So Important about Initiative and Creativity?

In school, higher education, and in every kind of career, the ability to take the initiative in tackling challenging tasks, coming up with innovative ideas, and connecting and applying knowledge in new ways, is essential to success. Look at this award-winning high school robotics team [video link]; their success depends on their playful, creative approach to their work.

The 21st Century Learning Framework includes creativity as one of its “4Cs,” together with critical thinking, communication, and collaboration. Also, the first student standard of the International Society for Technology in Education’s (ISTE) standards) focuses on “Innovation and Creativity.” People who have an “I can do it”—or better yet, “We can do it” attitude have been responsible for advances in science, medicine, technology, business, education, and every other field one can think of. Initiative—a self-directed focus on a challenging goal—is also essential throughout life. Late childhood and adolescence are critical times for developing initiative, but the foundation for this and other “Habits of Mind” must be laid in the K-3 years. Like each of the other components of Approaches to Learning, children’s development of Initiative and Creativity doesn’t just happen. It needs to be nurtured in K-3 classrooms.

In this section of the Approaches to Learning Guide we describe expected child behaviors that demonstrate initiative and creativity, and we share examples of teacher supports for these essential competencies.



### Examples of Child Behaviors Demonstrating Initiative and Creativity, Grade by Grade

Kindergarten	Grade 1	Grade 2	Grade 3
<ul style="list-style-type: none"> <li>Asks concrete questions showing curiosity about new ideas and experiences.</li> <li>With adult encouragement, tries a range of new experiences.</li> <li>Experiments with new uses for familiar materials, toys, and games.</li> <li>Takes initiative in participating in class projects.</li> <li>Demonstrate that he or she sees new connections across different materials and experiences (e.g.).</li> <li>Use familiar materials in new ways.</li> </ul>	<ul style="list-style-type: none"> <li>Asks varied questions showing curiosity about new ideas and experiences.</li> <li>Independently tries a range of new experiences connected to interests.</li> <li>Begins to bring concepts/ideas together from different areas of learning.</li> <li>Uses materials in innovative ways.</li> <li>Joins with others in shared interests.</li> </ul>	<ul style="list-style-type: none"> <li>Asks more complex, questions such as “Why could that happen?”</li> <li>Explores a wide range of new experiences.</li> <li>Adds new ideas to individual or group tasks/projects.</li> <li>Evaluates which ideas may be best.</li> <li>Frequently brings concepts together from diverse learning areas.</li> <li>Selects from options given in assignments and activities to pursue own special interests.</li> <li>Uses concrete materials and ideas in innovative ways.</li> </ul>	<ul style="list-style-type: none"> <li>Asks increasingly complex, higher order questions such as “What would happen if”.</li> <li>Independently seeks out and explores new experiences in depth.</li> <li>Shows enthusiasm for trying a range of new academic challenges.</li> <li>Takes appropriate risks in order to gain skills in new learning areas.</li> <li>Takes active role in collaboratively planning class projects, games, and activities.</li> <li>Tries to solve problems during class activities without adult help.</li> <li>Use complex language to describe new connections between different areas of learning (e.g.).</li> <li>Use familiar materials, ideas, and language in new ways.</li> </ul>



## Approaches to Learning Components, Child Behaviors, and Teacher Supports

### Examples of Teacher Supports for Initiative and Creativity, Across Grades and Grade by Grade

#### To Promote Initiative and Creativity: Supports Across All Grades

- Offer choices and encourage children to take initiative.
- Redo or “remodel” some existing lessons to increase opportunities for children to exercise greater initiative and creative thinking (Again, see Appendix B).
- Decrease emphasis on external rewards, while recognizing examples of individual and group initiative and of children’s innovative thinking and actions.
- Ensure that each day’s activities include opportunities for children to explore innovative solutions on their own or in groups.

Kindergarten	Grade 1	Grade 2	Grade 3
<ul style="list-style-type: none"> <li>• In concrete situations, talk about your own use of initiative (“I thought about our story for today and here is what I decided.”).</li> <li>• Help children exercise initiative with concrete supports like “choice boards”.</li> <li>• Review and modify, as needed, curriculum activities to expand opportunities for creative and innovative work.</li> <li>• Simulate children’s curiosity with concrete materials—mystery boxes, intriguing objects, etc.</li> <li>• Begin to build children’s ability to go deeper in their own learning: “How can we find out more about turtles? Let’s see what this book says.”</li> </ul>	<ul style="list-style-type: none"> <li>• Talk with individual and small groups of children about following their interests—“What do you really want to do, what are you most curious about?”</li> <li>• Increase opportunities for self-motivated choices (e.g., choosing a learning center, creating small groups, etc.).</li> <li>• Continue to offer many creative opportunities, extending over longer periods of time.</li> <li>• Identify opportunities within content standards (e.g., New Generation Science Standards) to promote children’s inquiry and innovation.</li> <li>• Use project-based learning to deepen children’s knowledge in areas of individual and class interest, increasing responsibility for their own learning.</li> </ul>	<ul style="list-style-type: none"> <li>• Share examples of initiative and intrinsic motivation in your own or your family’s experience (“I’m working so hard to learn to play the guitar—just because I want the challenge.”)</li> <li>• Use more complex curriculum units and projects to promote individual initiative—“Which part of the project will you work on?”</li> <li>• Encourage children to identify and discuss new connections across projects, curriculum areas, between past and present activities, etc.</li> <li>• Continue to ensure that standards-based curriculum includes strong inquiry emphasis.</li> <li>• Offer opportunities to learn about scientists, artists, and other creative, innovative women and men (across grades).</li> </ul>	<ul style="list-style-type: none"> <li>• Share your own examples of initiative and “growth mindset” while eliciting children’s descriptions (“Last weekend, what choices did you make about when to do your homework?”).</li> <li>• Continue initiative-promoting opportunities in the curriculum, emphasizing self-reflection on students’ development of initiative and intrinsic motivation—e.g., at the end of projects.</li> <li>• Use project work to further highlight children’s initiative and creativity, sharing with other classes and families.</li> <li>• Help children develop or apply rubrics to self-assess their contributions to group projects, especially in implementing novel ideas and self-directed investigations.</li> </ul>



## Summary and Final Thoughts

This Approaches to Learning Guide is intended to give K-3 teachers information and practical help in developing each child's EPPIC Skills: Engagement; Planning and Problem-Solving, and Initiative and Creativity. The Guide closely connects with and supports other resources, including the Implementation Guide for First, Second, and Third Grade. The planning tools in Appendix C may help you think about integrating specific EPPIC skills into lessons, units, or projects along with relevant Common Core State Standards, Next Generation Science Standards, and other competencies. Together, these resources and others listed here will support children's progress in all curriculum content areas while at the same time supporting positive Approaches to Learning and social-emotional competence. Research and experience indicate that this is likely to be a winning combination now and as children move forward in their education.

*"In sum, learning occurs through a process of engagement and participation in a relationship with a caring and trusted other who models the process of and provides opportunities for self-directed learning. In acquiring the capacity for self-regulated learning, social-emotional skills that foster the relationship and executive function skills that promote self-regulation are quite literally foundational for learning."*  
(Blair & Diamond, 2008, p. 11)



# Addressing Yes-But Concerns

Administrators, teachers, and families may have questions or concerns about this emphasis on developing EPPIC Skills in K-3. Here are examples of these concerns and ideas about how to address them.”

## Yes, But . . .

**Q:** I’m an administrator. From my classroom observations, using a daily planning time and daily reflection about children’s plans and problem-solving strategies seems very time-consuming. Is it really beneficial?

**A:** *Higher-level thinking and problem-solving skills are essential for academic success as children move through the elementary years and beyond. When teachers encourage children to plan, make thoughtful choices, discuss, and try out different ways of dealing with learning tasks, all areas of their development are supported, including those critically important executive functions. Making time for planning, flexible problem-solving, and reflection pays off. These are the kinds of skills that will be needed for children to be college and career ready.*

Reference: Epstein, A.S. (2003). How planning and reflection develop young children’s thinking skills. *Young Children*, 58 (5), 28-36.

On line: <https://www.naeyc.org/files/yc/file/200309/Planning&Reflection.pdf>

## Yes, But . . .

**Q:** Isn’t this emphasis on Approaches to Learning taking time away from important academic goals?

**A:** *Approaches to Learning are an investment worth making. Children who develop EPPIC skills (Engagement; Planning and Problem Solving; Initiative and Creativity) are more likely to do well academically. If they have opportunities to practice these skills every day, children will become more motivated, involved, and effective learners. This practice can easily be woven into the design of activities and lessons that are already part of the NJ K-3 curriculum. Children’s strengthened Approaches to Learning will then help them become more competent across all curriculum areas: literacy, mathematics, science, social studies, and more.*

Reference: Hughes, J. N., Luo, W., Kwok, O.-M., & Loyd, L. K. (2008). Teacher–student support, effortful engagement, and achievement: A 3-Year longitudinal study. *Journal of Educational Psychology*, 100(1), 1–14. <http://doi.org/10.1037/0022-0663.100.1.1>

## Addressing Yes-But Concerns

### Yes, But . . .

**Q:** Administrators have to be concerned about assessment. Is it possible to assess Approaches to Learning?

**A:** *Yes, it is possible, and some New Jersey school districts are beginning to do so. It's important for teachers to have simple assessment tools that will help them focus on individual children's strengths and needs in each of the EPPIC Skill areas: Engagement; Planning and Problem Solving; and Initiative and Creativity. Quick observations using a simple checklist can help teachers see whether, and how deeply, children are engaged during specific activities. Rubrics can be used to identify (and help students self-identify) their use of innovative, creative approaches to various learning tasks. As discussed in the Assessment section of New Jersey's First, Second, and Third Grade Implementation Guide, assessment—including but not only Approaches to Learning assessment--should primarily aim to help teachers improve their teaching and individualize their supports.*

Reference: Chen J. Q., & McNamee G. D. (Eds.). (2007). Bridging: Assessment for teaching and learning in early childhood classrooms, PreK–3. Thousand Oaks, CA: Corwin Press.

### Yes, But . . .

**Q:** Shouldn't these skills just be taught at home?

**A:** *Certainly, home environments play a very important part in building what we are calling EPPIC skills. However, just as in other areas of learning, these skills will develop better if they are emphasized both at home and at school. A coordinated effort is likely to produce the best results. Schools can share what they are doing with families, giving concrete examples of how teachers are helping every child become more engaged, planful, independent, and creative as a learner. When they understand how these skills help their children, most families welcome tips about how to encourage positive approaches to learning at home—in homework practices, household tasks, out-of-school sports or music activities, and more. Parental involvement works, and teamwork is the key.*

Reference: Reynolds, A. & Clements, M. (2005). Parental involvement and children's school success. In E. Patrikakou et al. (Eds.), School-family partnerships: Promoting the social, emotional, and academic growth of children. New York: Teachers College Press.

## Addressing Yes-But Concerns

### Yes, But . . .

**Q:** In my experience, some children are just not very motivated. Teachers can't do much about that.

**A:** *Many educators and parents think that children are born with more, or fewer, EPPIC competencies. They may have heard that some children are simply more motivated or more creative. It's more complicated than that. Of course, children are born with different tendencies. But in Approaches to Learning, as in other areas of development, research shows that children's early environments are critically important. Children may enter teachers' K-3 classrooms with little apparent enthusiasm for, or engagement in learning—but each school year is a new beginning. Opportunities provided in school can guide a child toward developing greater engagement, planfulness, initiative, and other key EPPIC skills. Teachers, indeed, are among the most powerful influences on children's approaches to learning—which is the reason for this Guide.*

Reference: Hyson, M. (2008). *Enthusiastic and engaged learners: Approaches to learning in the early childhood classroom*. New York: Teachers College Press and Washington, DC: NAEYC.

### Yes, But . . .

**Q:** Administrators have to be concerned about over-burdening teachers. Teachers have so much to do already. How can we add yet another area for them to emphasize?

**A:** *This is an important concern, shared by administrators and teachers. In this Guide, we emphasize strategies that teachers can use to integrate Approaches to Learning skills into New Jersey's core curriculum. There is no need for a separate Approaches to Learning curriculum. Many examples in this Guide show how daily routines, content area lessons, and curriculum projects can be enriched by giving children opportunities to be more deeply engaged, plan and follow through on their plans, solve challenging, meaningful problems, and exercise initiative and creativity. Skilled teachers integrate these skills already; in this Guide we highlight additional opportunities. The payoff is that children will at the same time strengthen their academic and EPPIC skills.*

Reference: Brophy, J., Alleman, J., & Knighton, B. (2010). *A learning community in the primary classroom*. New York: Routledge.

## Addressing Yes-But Concerns

### Yes, But . . .

**Q:** Visiting K-3 classrooms, I often see “Learning Centers,” where small groups of children are doing different things at the same time, often as part of time-consuming projects. Isn’t it more efficient to teach directly, with everyone learning the same thing at the same time?

**A:** *If we want children to develop the critical EPPIC skills (Engagement; Planning and Problem Solving; Initiative and Creativity), schools must think about the conditions that are most likely to provide opportunities to learn and practice those skills. As emphasized in NJ’s Implementation Guide for Grades 1-3, and as supported by research, small-group work is very effective in promoting initiative and deeper, more focused engagement with learning tasks. Described in depth in the Grades 1-3 Guide, project-based learning, in which blocks of time allow children to work on different aspects of the project in centers or “work-sites,” has great potential to support the development of positive Approaches to Learning as well as a range of academic competencies.*

References: Marzano, R. (2007). *The art and science of teaching*. Alexandria, VA: Association for Supervision and Curriculum Development; Jacobs, G., & Crowley, K. (2014). *Supporting students, meeting standards: Best practices for engaged learning in first, second, and third grades*. Washington, DC: National Association for the Education of Young Children.

### Yes, But . . .

**Q:** In my years in education, I’ve seen fads come and go. Is “Approaches to Learning” just another educational fad?

**A:** *It’s not surprising that experienced administrators and teachers may doubt whether Approaches to Learning is an idea that is here to stay. This Guide summarizes a growing consensus from researchers in child development and education, the business community, policymakers, and others: This set of competencies is truly essential for success in school and in life. Although different names have been given to these skills, there is strong agreement about their importance. New Jersey is in the forefront of this movement, both with these K-3 Approaches to Learning expectations and with the ongoing, closely related work on K-12 Social and Emotional Learning Standards.*

References: Dweck, C. (2006 ). *Mindset: The new psychology of success*. New York: Ballantine; Tough, P. (2012). *How children succeed: Grit, curiosity, and the hidden power of character*. Boston: Houghton Mifflin Harcourt.



## Addressing Yes-But Concerns

### Yes, But . . .

**Q:** With the Common Core, there is so much new, challenging content in mathematics. Won't the children be better off if our teachers covered this content with the whole class, instead of having so much small group work?

**A:** *In many districts, children are struggling with mathematics, as reflected both in test scores and in their negative feelings about this important part of the curriculum. Research indicates that children are likely to be more mathematically successful, and have more positive attitudes about mathematics, if teachers promote Approaches to Learning competencies within the mathematics curriculum. For example, teachers can engage children in interesting, meaningful math tasks; involve children in rich conversations about mathematical ideas; encourage innovative ways to solve problems; listen reflectively and with interest to children's own mathematical ideas; and scaffold children's attempts to solve problems using multiple strategies. All of this takes time and a classroom organization that moves away from whole-group didactic instruction to more time spent in small, interactive groups that foster EPPIC skills: engagement; planning and problem-solving; and initiative and creativity.*

References: Copley, J. (2014). Goals for early childhood mathematics teachers. In H.P. Ginsberg, M. Hyson, & T.A. Woods (2014). Preparing early childhood educators to teach math (pp. 75-95). Baltimore, MD: Brookes; National Research Council (2009). Mathematics learning in early childhood: Paths toward excellence and equity. C.T. Cross, T.A. Woods, & H. Schweingruber, Eds. Committee on Early Childhood Mathematics. Washington, DC: National Research Council.

### Yes, But . . .

**Q:** Kindergarten children seem too young to be learning these skills.

**A:** *Actually, Approaches to Learning skills have been identified and intentionally promoted, even with children birth to age 3 (see the New Jersey standards, for example). Kindergarten is an especially important time to emphasize EPPIC skills: According to the National Center for Education statistics, first-time kindergartners who demonstrated these positive learning behaviors "very often" in the fall of kindergarten had higher average reading and mathematics assessment scores than kindergartners who demonstrated these behaviors less often. In Looking at this Guide's descriptions of child behaviors and teacher supports grade-by-grade, you can see how competencies gradually develop every year, with later skills building on earlier ones. And of course, the experiences that build EPPIC Skills should be developmentally appropriate—well-matched to children's ages, individual, and cultural characteristics.*

Reference: NCES Blog (June, 2015). Children's approaches to learning and academic achievement in the early grades. National Center for Education Statistics. On line: <http://nces.ed.gov/blogs/nces/post/approaches-to-learning-and-academic-achievement>

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**Note: “E” = resources that have especially practical suggestions for classroom teachers and other school personnel.**

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# Appendix A

## An Annotated Example: Opportunities for EPPIC Skill Development Within a K-3 Curriculum Unit

Note: The following description of part of a social studies unit is excerpted from the New Jersey First, Second, and Third Grade Implementation Guide. Here we have inserted notes in bold italics to highlight the unit's many opportunities to build children's EPPIC Skills.

### The Social Studies Unit on Community

"To begin the unit, Mrs. Thompson consults the Common Core Standards for English Language Arts (ELA) and the New Jersey Core Curriculum Content Standards (NJCCCS) for social studies, as well as the curriculum guides provided by her district. **[To add a focus on Approaches to Learning, she can also consult that guide, selecting one or more EPPIC skills for special emphasis—although all will probably be addressed].** She then composes "I can" statements describing both the overarching (throughout unit) objectives.

*I can describe a community.*

*I can describe the people in my community.*

*I can describe the places in my community.*

***I can join with other students to learn more about something that interests us.***

***I can use many different ways to work on a problem.***

To ensure she is responsive to the needs of her students, Mrs. Thompson begins the unit by eliciting her students' understanding of community. On the carpet in the literacy center, Mrs. Thompson begins:

*Over the next few weeks, we are going to be reading stories about the people and places in the community. Each of you will also choose a place **[Research shows that engagement is promoted when students are given choices]** in the community you would like to learn more about. You will meet with other students who are interested in that place in our community and work together as a team **[Small group work encourages focused attention and persistence.]** to find facts that you can share with the rest of the class. Your team will create a model of that part of the community. That means you will use cardboard, construction paper, and other materials to make a smaller copy of what your location looks like. Once everyone is done researching and creating **[Note the emphasis on creativity and innovative solutions to representing their chosen location in the community]**, we will put all of your pieces of the community into a community map.*

Mrs. Thompson introduces the book *On the Town: A Community Adventure* by Judith Caseley. After reading the story, she posts the sentence strip containing the statement, "What do we want to know about a community?" on the easel. Mrs. Thompson shows the children the KWL chart and asks them to help her complete the K - "What they want to know." She then asks them to share their "wonderings" about communities ***[This part of the activity encourages varied responses and respects children's individual and cultural characteristics, as "community may mean different things to different children and families]*** and records these comments:

## Appendix A

*Can we go on a community adventure?*

*Who works in the community?*

*What is the community?*

*Is the park part of the community? How owns the park?*

*Who belongs to my community?*

How do we make our community better? [***Encouraging these ideas builds competence motivation and a growth mindset, important elements of positive approaches to learning. The children will be motivated to gather information to answer their own questions, becoming more informed—growth mindset—through their own efforts.***]

As Mrs. Thompson plans her next lessons on the community unit, she works toward balancing her learning objectives from the social studies curriculum with these student-generated questions. . . . Students use their new understanding of community and key resources to work in groups to research places such as the grocery store, community park, fire station, and post office.” [***As the unit continues in the coming days and weeks, the class will be developing planning and problem-solving skills as they strategize about how to gather information and how to represent it to others.***]

# Appendix B

## Promoting EPPIC Skills with Remodeled Lessons

Almost any activity or lesson can be enhanced or “remodeled” to help children develop one or more EPPIC skills. Here are three examples.

### Example 1

#### Brief Description of Kindergarten Math Lesson on Measurement (found on the internet):

##### Common Core State Standards

K.MD.1.

- Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.

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.

**Activity:** Teacher collects a variety of classroom objects of different lengths (e.g., paper clip, crayon, ruler, etc.) and gives each child a set of these objects. Using a strip on the floor as a base, each child puts his or her set in order from shortest to longest. Teacher gives help as needed and encourages children who finish quickly to mix their items up and do it again.

**Analysis in light of Approaches to Learning:** The activity seems to have little potential to engage children. It is likely that some children will find it very easy and finish quickly, while others will have much more difficulty and perhaps give up. Problem-solving strategies could be further highlighted. There is also little opportunity for innovative thinking.

#### Ideas for Possible “Remodeling”

**EPPIC Skills to Emphasize:** Engagement (sustaining attention and persisting); Planning and problem solving (planning ahead; using varied strategies); Initiative and creativity (making connections across different ideas and learning tasks).

- Increase intrinsic motivation by changing this from an individual task to a small-group activity where 4-5 children are given a set of objects (6-12 of different lengths) and work together to put them in order of length. (Note: It could also involve the whole class working together—it is more challenging with more items, but therefore likely to be even more engaging.)
- Give small groups time to discuss and make plans for how they will go about this task. How do they want to begin? What will they do first?
- Circulate among groups, affirming their hard work and persistence, and describing their strategies (“Oh, I see that you have started with the longest and shortest ones, and you’ve left room for the others!”)
- Consider adding a new level of challenge by combining small groups after the first step, either the whole class or teams of 8.
- In a follow-up discussion, each group will explain how they arranged their objects. Encourage children to compare how different small groups went about doing this.
- In the follow-up discussion, encourage children to make connections to other things they have put in order of length or would like to (e.g., lining up by height).
- Other ideas?

## Appendix B

### Example 2

#### Brief Description of Science Lesson (adapted from internet)

**NGSS: K-ESS2-1 Use and share observations of local weather conditions to describe patterns over time (and other NGSS components)**

**Activity:** Teacher reads a Dr. Seuss book about weather and asks children what they learned from the read aloud. Teacher tells children they will be observing the weather every day for a month. Each student will take a turn serving as class meteorologist and lead a discussion of current weather conditions. A class chart will track observations. Each student will also keep a journal of the days' forecasts and actual weather.

**Analysis in light of Approaches to Learning:** The activities in the unit have potential but can be modified in light of important EPPIC skills. Much of the work is individual, and the plan does not respond to diversity in students' interests and experience. The daily activity of recording the weather could easily become a simple ritual, lacking sufficient depth and challenge. Greater attention to problem-solving would also strengthen children's Approaches to Learning skills.

#### Ideas for Possible "Remodeling"

**EPPIC Skills to Emphasize:** Engagement (sustaining attention and persisting); Planning and problem solving (planning ahead; using varied strategies); Initiative and creativity (making connections across different ideas and learning tasks).

- Instead of having one child be the "meteorologist" each day, teams of children can serve this function for several days in a row. This also allows each team to have time for in-depth thinking about their observations in light of weather forecasts and perhaps see patterns over several days rather than just one day.
- In the introduction to the weather investigation, the teacher can draw upon children's own experiences with weather and weather instruments, rather than just relying on a storybook. Individual children may already have deep interest and curiosity about weather; some children may also have lived in places with quite different weather patterns.
- Instead of the teacher pre-planning what the weather chart and recording process will look like, it is possible to increase emphasis on planning and problem-solving with students sharing ideas about good ways to keep track of the weather. Also, individual children or teams may organize their weather notebooks in different ways, sharing ideas with classmates.
- The teacher might encourage teams of "meteorologists" to find innovative ways of sharing the day's weather findings with the class. These might include a drawing of the day's weather, a question for the class, or acting out what the forecast was for the day (miming strong winds, for example).



## Appendix B

### Example 3

#### Brief Description of Science Lesson (adapted from internet)

**NGSS: 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. (and other NGSS standards)**

**Activity:** As part of a larger unit, teacher has children individually complete a “Different Ways Objects Move” worksheet to check if the object is moving up or down, right or left, or in a circle. Afterwards, teacher begins a KWL chart about the different ways that non-living things can move. Children then participate in an activity in which small groups try to balance shorter and longer pencils on a table to see which falls faster. They make predictions about possible differences, and whether it rolls in a certain direction after it falls. The teacher introduces the concept of “gravity” to explain why pencils fall down and not up. New vocabulary is placed on the word wall. At the end, children are asked to draw pictures that would remind them of what the new vocabulary words mean.

**Analysis in light of Approaches to Learning:** The lesson does not seem to have much potential for engagement or extended investigation of interesting phenomena. Children work in groups for some of the lesson but they are not being encouraged to use varied problem-solving strategies. The pencil-falling activity has potential for encouraging persistence and flexibility in using different strategies, but the time seems too limited for deeper exploration.

#### Ideas for Possible “Remodeling”

**EPPIC Skills to Emphasize:** Engagement (sustaining attention and persisting); Planning and problem solving (planning ahead; using varied strategies); Initiative and creativity (making connections across different ideas and learning tasks).

- Using real objects instead of a worksheet would help to stimulate children’s curiosity. In pairs or small groups, they could experiment with the objects and describe how they move or can be made to move. This would respond to individual differences in children’s interests and skills, and would build in more time for small group work, which motivates children’s learning.
- More time could be devoted to the pencil-falling activity, including encouragement to experiment with different ways of helping the pencils remain upright, different methods of recording what happens, and other innovations.
- During the small group pencil-falling activity, the teacher can notice and comment on children’s ability to persist in the task: “Yes, it’s kind of frustrating when one pencil falls before you can get the other one to stand up. What are your ideas for how to deal with that?”
- The teacher can encourage children to broaden and deepen their learning by asking them to think of other objects whose movement they might explore, either in class or at home. With the teacher, the children can make a list of those objects and follow up.
- Instead of the rather uninteresting task of drawing pictures related to the new vocabulary, perhaps the lesson could be extended with a class mural or a class book, in which each child could draw a picture of an object of his or her choice, showing ways that the object could be made to move (for example, by falling down, by someone throwing it, by being blown by the wind, etc.). Children would be using new vocabulary but also strengthening EPPIC skills including initiative and creativity.

# Appendix C

## Including Approaches to Learning in K-3 Planning Tools to Adapt and Use

Here is a simple tool that teachers can adapt and use in planning curriculum for Grades K-3. It can help remind you to intentionally include EPPIC Skills (Engagement; Planning and Problem Solving; Initiative and Creativity) in your plans, along with specific content standards in literacy, mathematics, social studies, and science and technology.

**Activity, Unit, or Project** \_\_\_\_\_

Domains	Standards and Indicators	Experiences and Activities	Assessment Plans
Language and Literacy (CCSS)			
Mathematics (CCSS)			
Science (NGSS)			
Social Studies			
Approaches to Learning --Engagement --Planning and Problem-Solving --Initiative and Creativity			

Appendix C

And here is another tool for teachers to use or adapt.

PLAN FOR INTEGRATING CURRICULUM				
Topic:		Teacher:		Grade Level:
ACTIVITY	STANDARDS (ELA, Math, Science, Social Studies)	Approaches to Learning (EPPIC Skills)	CENTER EXTENSION	PLAN FOR ASSESSING
MATERIALS NEEDED	EXAMPLE OF FEEDBACK PROVIDED TO DIFFERENTIATE OR SCAFFOLD (FOR ONE CHILD)		IDEAS FOR EXPANDING THE ACTIVITIES TO A LONGER TERM STUDY?	

