

The Scholastic Book of Early Childhood Learning Centers

**Complete How-to's, Management Tips, Photos,
and Activities for Delightful Learning Centers That Teach
Early Reading, Writing, Math & More!**

by Deborah Diffily, Elizabeth Donaldson, and Charlotte Sassman

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ACKNOWLEDGMENTS

Special thanks to the teachers and children of Alice Carlson Applied Learning Center,
Briscoe Elementary School, Riverside Applied Learning Center,
YWCA Polytechnic Child Care Center, all located in Fort Worth, Texas;
Tarrant County College Child Development Lab School, Hurst, Texas;
and Covenant Christian Academy, Colleyville, Texas.

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Cover design by Niloufar Safavieh and Jaime Lucero

Interior design by Solutions by Design, Inc.

Photographs by Scott Smith, Charlotte Sassman, Deborah Diffily, and Mike Hawkins

ISBN: 0-439-20106-3

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Introduction


Centers, by the nature of their design, allow each child to work at his or her individual developmental level.

— Rebecca Isbell,
The Complete Learning Center Book, 1995

Centers are a natural approach to use when providing learning experiences for young children. Five-, six-, and seven-year-old children are active, curious, social beings. Learning centers take into consideration these developmental characteristics and offer an organized environment for young learners. Carefully selected materials allow children to explore concrete objects, and a range of these materials helps each child to work at his or her own developmental level. Working in small groups gives children the opportunity to interact with learning materials and with each other more than they can in whole-group experiences. Sharing materials helps children learn to work more cooperatively and to develop a sense of responsibility toward the classroom and each other.

Centers offer an impressive learning environment for young children. To help you create effective learning centers in your classroom, we divided this book into four parts:

- ⑥ **Using Thematic Units to Spark Children's Learning—An Example** illustrates how young children responded to the study of a single theme, namely hermit crabs. We recount how the learning in this theme was extended and supported, as the classroom's traditional learning centers were enhanced with theme-related materials.
- ⑥ **Establishing Learning Centers** responds to the day-to-day questions of setting up and managing centers. We explain how implementing quality centers positively affects children's learning. We also suggest ways to help families understand how children learn through centers. You'll find advice on how to set up centers, including arranging the room, choosing materials, managing behavior, and facilitating children's choices.

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- ⑥ **Centers to Support Young Children's Learning** describes nine traditional learning centers, with suggestions for center set-up. We explain what children learn in each center and offer open-ended questions to encourage children's thinking. You'll also find a list of materials that could be included in the center and ideas for activities.
- ⑥ **Centers to Support Thematic Teaching** describes how these traditional centers can be rearranged and supplemented to support thematic teaching. You can strengthen any thematic unit by adding new materials to traditional centers and creating new temporary centers. You'll find 14 different thematic units, with background information, new centers that support the unit, suggested materials to add to existing centers, a list of related vocabulary words, a culminating activity, and a list of books to support the theme.

Using Thematic Units to Spark Children's Learning—An Example

In an early childhood classroom where the children became curious about hermit crabs after reading Eric Carle's *A House for Hermit Crab*, we incorporated the topic of crustaceans in as many centers as possible.

We put several copies of *A House for Hermit Crab* and an audiocassette of the book into the listening center. Fiction and nonfiction books about crabs, shrimp, and other ocean life on the shore and in shallow water were added to the reading center. We bought an aquarium and four live hermit crabs for the science center and borrowed crustacean specimens from a local science museum. Two of the hermit crabs dwelled in the sand center, so children could observe them in a different setting. We arranged medium-large seashells, clay, and collage materials in the art center so that children could create their own decorated shells for hermit crabs. Adding an



assortment of shells and a balance scale to the math center encouraged sorting and comparing the weight of the shells. We put blank science observation logs in the writing center. The dramatic-play center was turned into a beach scene, and photographs of beach homes were posted in the block center.

We had added materials to all nine of our regular centers to help the children explore the theme of hermit crabs and the shore. The children worked in all nine centers. To visitors in the classroom, much of the children's activity looked like they were "just playing." But we know that young children learn important concepts when they are playing in quality learning centers.

Playing is a fundamental process of creative thinking, allowing the child to construct and reconstruct the imagery of rich, early experiences, and thus to grow and develop.

— Joe Frost, *ERIC Document*, 1986

During whole-group discussions, we generated lists of what the children wanted to know about real hermit crabs. We then read together different books and pamphlets to find out the answers to the questions. The children read poems about different crustaceans and tried to walk like crabs as they listened to seashore environmental sounds. Small groups of children observed the hermit crabs and talked about how they ate, how they walked, when they went into their shells, and when they came out. The children paired with older students to find photographs of all kinds of crabs, shrimp, and crayfish on the Internet. They worked in small groups to measure how far a hermit crab could crawl in five minutes. They collaborated to create science observation logs and to write fact cards about hermit crabs based on what they had learned.

This was a quality learning experience for the children in this class. The unit of study started with an interest they had expressed. The large- and small-group learning experiences planned by the teacher were rich. Although the students readily engaged in all of the activities, the most stimulating learning occurred during center time as children worked on activities they selected themselves:

- ☉ Students went back and forth between the art and science centers every day as they created hermit crabs from seashells, clay, and pipe cleaners. Even though these same children drew in their observation logs every morning, they spent much more time observing the live crabs when they were trying to decide how long to make the eye stalks and the legs, or if they should make all eight legs visible or leave some inside the shell. They were absorbed with the details of a hermit crab and how they could recreate a realistic-looking crab.
- ☉ Another group of students chose to work with Model Magic® to create the creatures from *A House for Hermit Crab*. They helped each other work with clay, paint sculptures, and arrange them in the sand center, using the book for reference.
- ☉ Still another group of students decided to make a list of all the ocean life that Carle had written about. From their list they searched for books that would tell them about each item on their list.

These are just three examples of the activities kindergarteners decided to do, based on the background knowledge provided by the group experiences and stimulated by the materials placed in different centers. When young children are given a rich classroom environment and allowed to make their own decisions, they often surprise adults with the depth of learning that occurs through their self-selected activities.

Establishing Learning Centers

Active, well-organized learning centers filled with a variety of materials offer a rich learning environment for young children. When children regularly work in carefully constructed learning centers for blocks of uninterrupted time, they add a breadth and depth to their learning. They participate in open-ended learning, are self-directed, combine subject areas, interact with peers, and extend their learning with the teacher's response.



Every aspect of the physical environment, from the general arrangement of furnishings to the smaller details of color and texture, communicates something to the children using that space.

— Candice Bowers, *Room to Grow*, 1990

Young children do not separate learning into categories or subject areas such as reading, writing, math, science, and social studies. For that reason, we routinely integrate curriculum through the lessons we teach in large and small groups, the books we read aloud, and the songs we teach in class. By integrating young children's learning experiences, we help children make sense of their world and connect what they already

know with what they are learning. When children work in carefully constructed learning centers, this integration of curriculum is extended and sustained.

Direct experiences with open-ended materials organized in learning centers is an important source of knowledge for children. However, a casual observer may not readily recognize much of what young children learn as they work with these center materials. For example, in a single class of 5- and 6-year-olds where several children are painting at easels, different children will be absorbing different things from the same activity. Some may be mastering hand-eye coordination, which is important in learning to write. Some may be learning to distinguish shapes and to purposefully create shapes, which are important math skills. Still other children may be using the paint to name colors they already know or to make new colors by combining the paints. At the easel, children learn to develop their emerging creativity, express their feelings or ideas in a different way, and understand the concepts of symmetry, balance, and design. This same range of experiences applies to young children in all learning centers.



Providing options for children, rather than expecting all of the children to do the same thing at the same time, increases the likelihood of adjusting for individual differences.

— Sue Bredekamp and Teresa Rosegrant, *Reaching Potentials: Appropriate Curriculum and Assessment for Young Children*, Vol. 1, 1992

It is especially important to remember that five-year-olds do not think the same ways about the world as adults do. Cause and effect are not explained through logic, but rather through intuition.

— Chip Wood, *Yardsticks*, 1994

We arrange learning materials in every center so that they are organized and accessible to all children. Most of the materials sit on low shelves so that children can easily reach them. In most instances we stock centers with items, such as blocks, math manipulatives, clay, and dramatic-play props, that can be used in different ways. Some single-use learning materials, such as puzzles, do belong in early childhood classrooms, but the vast majority of materials should encourage children to interact with the objects in various ways.

While the names of learning centers imply content areas, such as the math center or the science center, the materials in these centers are not always content specific. For example, books should not be limited to the reading center nor should writing



materials be limited to the writing center. We place books and other reading and writing materials in all learning centers.

Many centers can support the development of one specific skill, depending on the materials that are placed in those centers. If one of our learning objectives for the week is learning to count to ten, for instance, we encourage this skill by adding materials to several different learning centers. We add several counting books—on many different levels, from simple to sophisticated—to the reading center; place two or three of those books, along with accompanying audiocassettes in the listening center; arrange collections of ten rocks, ten fossils, ten leaves, and ten small plants in the science center; stack ten measuring/pouring cups in the water center; create games to be played with a die and ten pennies for the math center; and put multiple copies of Donald Crews's *Ten Black Dots* near the art center to encourage drawings or paintings that start with a certain number of dots, one through ten.

We strongly believe that children need to interact with peers as they interact with the materials in the learning centers. Young children



need the opportunity to verbalize what they are thinking and express what they are feeling. When they work in different learning centers, they act out different play themes, share materials, and discuss what they are doing. This interaction encourages the give and take of conversation, the clear communication of what they want, and the language of negotiation and compromise. Children acquire knowledge and learn skills from each other as they work side by side in learning centers. As they work in different small groups, they learn to take both leader and follower roles. All of this happens as children engage in conversation. None of this important learning occurs in classrooms where silence is valued. If a teacher requires a totally quiet classroom, young children's learning will be restricted.

TIP**Center Set-up**

Teachers can share materials that are not kept out in the classroom all the time. Store related materials in large plastic boxes with lids. Clearly mark the end of the box with the name of the center. All teachers can contribute materials to these shared boxes.

TIP**Center Set-up**

In the reading center, place appropriate manipulative objects together with books to encourage integration of learning.

Shared activity forces the participants to clarify and elaborate their thinking and to use language.

— Elena Bodrova and Deborah Leong, *Tools of the Mind: The Vygotskian Approach to Early Childhood Education*, 1996

We also believe that teachers need to talk with children as they work in centers. Quality interactions between teachers and the children augment and prolong the learning that goes on in a learning center. Skillful questioning by teachers enhances this learning. Teachers who ask limiting questions get one-dimensional answers—usually a factual statement, “It is red,” or an indication of “Yes” or “No.” Often, teachers are so anxious to get children to talk that they forget to wait for the children to answer. That silence while children process the question and formulate their answer

can be intimidating to teachers. To give the child time to think, we sometimes make ourselves wait for a child's answer by silently counting to ten.

Teachers who use skillful questioning techniques have a repertoire of questions to ask and responses to make. These open-ended questions and statements can be used in almost any learning situation. They include:

- ⊗ Wow!
- ⊗ What a big job!
- ⊗ You did all this?
- ⊗ That's really awesome!
- ⊗ Could you tell me about ____?
- ⊗ How could ____?



Questions and statements such as these call for a reply from the student. If, after an appropriate span of silent waiting time, there is no response, repeat the question or statement. If no response is forthcoming from the child, invite the next student to respond. Sometimes the first student will join in that conversation. Then you can encourage this kind of accountable talk between these two students and move on to talk to the next child. To encourage children's thinking in the traditional learning centers, try some of the questions under "Open-Ended Questions to Encourage Children's Thinking" in the discussion of each center.

Conversations between teachers and children vary widely during center time. Sometimes we merely sit beside a child and engage in parallel play. We use the same materials as that child and "think" aloud as we manipulate the materials. Other times, we engage children in conversations about what they are doing and how they are interacting with the materials and with each other. We



may also take the lead in describing what children are doing to help them learn new vocabulary or new ways of describing their actions. Frequently, we teach lessons or skills at the moment children are ready for them. Inevitably, during center time, we also find ourselves redirecting children's behavior when it is not appropriate for the center where they are working. We value this time because each conversation can be directed to a child's particular developmental level and interests. The interactions among teachers and children are the essence of learning in centers.

Much of teachers' support is in the form of modeling. Teachers provide children with just enough information to begin a project or process; demonstrate aspects of a skill; provide oral coaching or instruction to help a child in a task; ask helpful questions; and give prompts, clues, or cues.

— Sue Bredekamp and Teresa Rosegrant, *Reaching Potentials: Appropriate Curriculum and Assessment for Young Children*, Vol. 1, 1992

We believe that learning centers are only as good as the way that children are encouraged to use them. Obviously, how the centers are arranged, what materials are chosen for each center and how they are organized, and how materials are changed throughout the year are important components of children's learning during center time. However, centers are constructed to meet a wide range of children's developmental needs and interests. We believe that children should choose for themselves the centers in which they will work during the majority of center time. When children make their own center choices their attention spans will be longer, they will be more absorbed in activities, and they will remember what they have done for longer periods of time. Obviously, there are times when teachers ask all children to do a specific task, but center time is the time each day when teachers can meet the needs of individual children. Well-constructed centers, child choice of



centers, and the substantive interactions among the teacher and children establish quality center time and optimal learning among children.

We believe that learning centers support findings from the latest brain research. While the findings and conclusions of these studies are still preliminary, many researchers are telling educators that children learn best when they are actively involved in their own learning, suggesting that children's choice of activities engages learners and leads to increased learning.

TIP

Center Set-up

Use nearby bulletin boards to extend learning in a center. For example, place art prints, a picture of a featured artist, and a simple biography on a bulletin board near the art center.



Researchers strongly believe that enriched environments actually help the brain work more effectively. They also say that movement supports memory. In addition, children learn more effectively when they feel positive emotions. Research shows that the brain switches into a lower level of learning when children feel stressed. Child-selected learning centers support each one of these brain-based suggestions for educational practice.

New cognitive research...is opening up new possibilities concerning the development of young brains; the role of emotions in learning; and the importance of connections to past experiences, shorter learning episodes, and changing biological rhythms.

— David Sousa, *Young Children*, 1998

Informing Families

Most families are not familiar with brain research or with other principles that guide early childhood educators' educational decisions. They may question why five-year-olds should spend two weeks studying hermit crabs or spend more than a month learning about planting seeds and gardening. They may view the daily center time as "just playing around." It is difficult to understand what goes on in a classroom when the only perspective a parent sees is that of their five- or six-year-old child. It is even difficult for some families to see the learning that is going on during an active center time.

We have always found that the more we share with families about what is going on in the classroom and why we do what we do, the more families understand and support our work. Each of us communicates with families in several different ways.

Classroom teachers have the ability as well as the responsibility to facilitate and help strengthen the relationships with their families.

— Sudia Paloma McCaleb, *Building a Community of Learners*, 1994

Written Information

Each of us sends home a weekly letter to families (see Sample Letter, p. 15). We share specific information about what has occurred in the classroom that week so the adults feel like a part of the class life. We share new books we read to the class or new poems and finger plays we learn. We share topics we discuss in our class meetings and write stories about interesting things that children say or do. We also explain some of the activities we do. We begin by telling what children learn as they work in different centers. As we add new materials to centers, we explain what children will be learning as they work with those materials.

From time to time, we also include other printed information, such as copies of articles from parenting magazines, suggested activities for families and children to share, notices of story times at public libraries, and announcements of new exhibits at local museums.

Be sure home correspondence, assignments, classroom assignments, and school events allow for the variety of family structures represented within your classroom. A child may want to bring a grandparent to Open House or create a Mother's Day card for an aunt, a stepmother, or the teacher down the hall.

— Candy Carlile, *Childhood Education*, 1991

Other Methods of Communicating with Families

Just as children have different ways of learning, we realize that family members learn differently. Not every parent can read or take the time to read written information that we send home. Some families need more active involvement to understand early childhood activities. We maintain an open-door policy with families. While we do not stop our work with children, adults are welcome to observe any time and are encouraged to volunteer in the classroom whenever they have time.

SAMPLE FAMILY LETTER

Dear Families:

By now I am sure you've heard about our invasion of the hermit crabs. The children's interest in crabs was prompted by our reading Eric Carle's *A House for Hermit Crab*. The children loved the book, so I borrowed some specimens of the ocean life that Carle featured in his book. The children asked so many questions. What could I do? There was no other choice but to study hermit crabs for several days.

This was one of those weeks when I was amazed—again—at how intense young children can be when they truly become engaged in a topic. We read books and nature magazines about hermit crabs. We painted and sculpted crabs, recorded observations of live hermit crabs in science logs, and wrote stories and poems about crabs. If you can drop by the classroom next week, I know you will be impressed with the quality of the children's work.

In math, we learned a new game called "Build a City." Basically, you roll one die. For the number rolled, you "build" a building that many Unifix® cubes high. After everyone in the class builds ten buildings, the children sort their buildings into six baskets. Finally, the whole group counts how many one-story buildings we have and record that number. We move to second-story buildings and so on. This game sounds relatively simple. However, this game is the foundation for learning about probability at a simple level.

Don't forget our family picnic on Sunday afternoon. For that event, there is a separate reminder especially designed for your refrigerator by John and Jason. The children want to know if the hermit crabs can come to the picnic, so come prepared to meet our crustaceans.

Call me if you have any questions.

We have discovered that conducting family meetings is one of the most effective ways of sharing information with families. One evening a month, children play in our classroom, while we meet in an adjacent room with adults. We explain specific issues about early childhood education, such as emergent-literacy activities or the reasons why thematic units are particularly helpful for young children, and discuss learning that occurs in the class. Family members ask questions, share stories



about their children, and discuss parenting issues. When they meet on a regular basis, family members develop a closer relationship with the teacher and with each other. These relationships facilitate home-school understandings. Of course, you do not have to wait until school is underway to start fostering home-school relationships. We mail letters to families and our students to introduce ourselves. We let them

know some of the activities they can expect the first week of school and explain a few things about the classroom itself. We also arrange a picnic for families before the school year begins so everyone can meet each other.



Obviously, we cannot talk with each family about their child during a family meeting, so we schedule individual conferences periodically with each family—at least three times a year. During the first conference, we set goals for the child and his or her learning. The second conference, halfway through the year, is to report progress toward those goals. At the end of the year, we review the child's progress for the entire year.

Finding ways to get to know parents in advance of conferences is very helpful and eases the strain that most of us feel when talking to strangers about important matters.

— Susan McAllister Swap, *Developing Home–School Partnerships: From Concepts to Practice*, 1993

We schedule these conferences for a long enough period so they can serve multiple purposes:

- ⊙ getting to know the family better
- ⊙ sharing the child's strengths through stories about the child and his or her work samples
- ⊙ talking about areas that need further development
- ⊙ suggesting ways that both parents and the teacher can help strengthen those areas

We always make sure that we have suggestions for what families can do to help their child at home.

A particularly useful strategy for involving parents is the use of science/mathematics backpacks.... The backpack is a type of mobile learning center that contains a parent letter explaining the purpose of the backpack activities, an information book and a children's literature book on the theme, directions for the activity, and all the materials necessary to complete the activity.

— Mary Martin Patton and Teresa M. Kokoski, *Young Children*, 1996

How to Set Up Centers

An important responsibility for all early childhood educators before school starts is to create the room environment. Each of us has a different approach to setting up our classrooms and, after years of teaching, none of us has found the “right” way to create an early childhood environment. Every year we make new changes. Here are two floor plans:

- ⊙ In the first floor plan (p. 18, top), notice how the centers are arranged around the central group area. The room has an open, light feel with the centers blending into each other. The dramatic play, sand-and-water, art, and science centers are located across one wall. If access to water is



available in that area, each center could use it. Across the room, the quiet centers of writing, listening, and reading are separated from the noisier block area by the teacher's desk. The math center shares the group area. A pegboard is placed between the science

TIP

Center Set-up

Consider adding some home-like touches: a small couch, an end table with a lamp, cushions, tablecloths, curtains, green plants, silk or dried flower arrangements.

tables to display children's work or reference materials.

- © In floor plan two (p. 18, bottom), the centers are defined into individual areas, with a divider separating one from the other. This room has a more organized, individualized feel to it. Between the blocks and dramatic play, the divider could be block storage shelves, bookshelves, or the refrigerator, stove, and/or cabinets of the dramatic-play center. Additional dividers separate the sand-and-water area from the science area. Science and art are still located close together to share the possible access to water.

To plan how to organize your classroom, first look at the things that cannot be changed about the room. For example, windows, electrical outlets, and water source usually cannot be moved. The lis-



tening center needs to be near electricity, and the science center requires sunlight for growing plants. Locating the block center on flat carpet softens the noise; conversely, cleaning up the art center and sand-and-water center would be easier if they are located on tile. Begin by positioning those centers in your classroom and then move to the other areas.

Creative teachers always look out for items that can be used in innovative ways in the classroom. We have seen room dividers made from plastic pipe covered with fabric gathered across the top pipe, making a window curtain-like divider. We have also seen recycled one-man fishing boats and claw-foot bathtubs used as reading centers, and five-gallon

ice-cream cartons laid on their sides and fastened together with strong tape to create a storage wall.

When looking at possible room arrangements imagine all the possibilities, while keeping in mind the things that cannot be changed.

TIP

Center Set-up

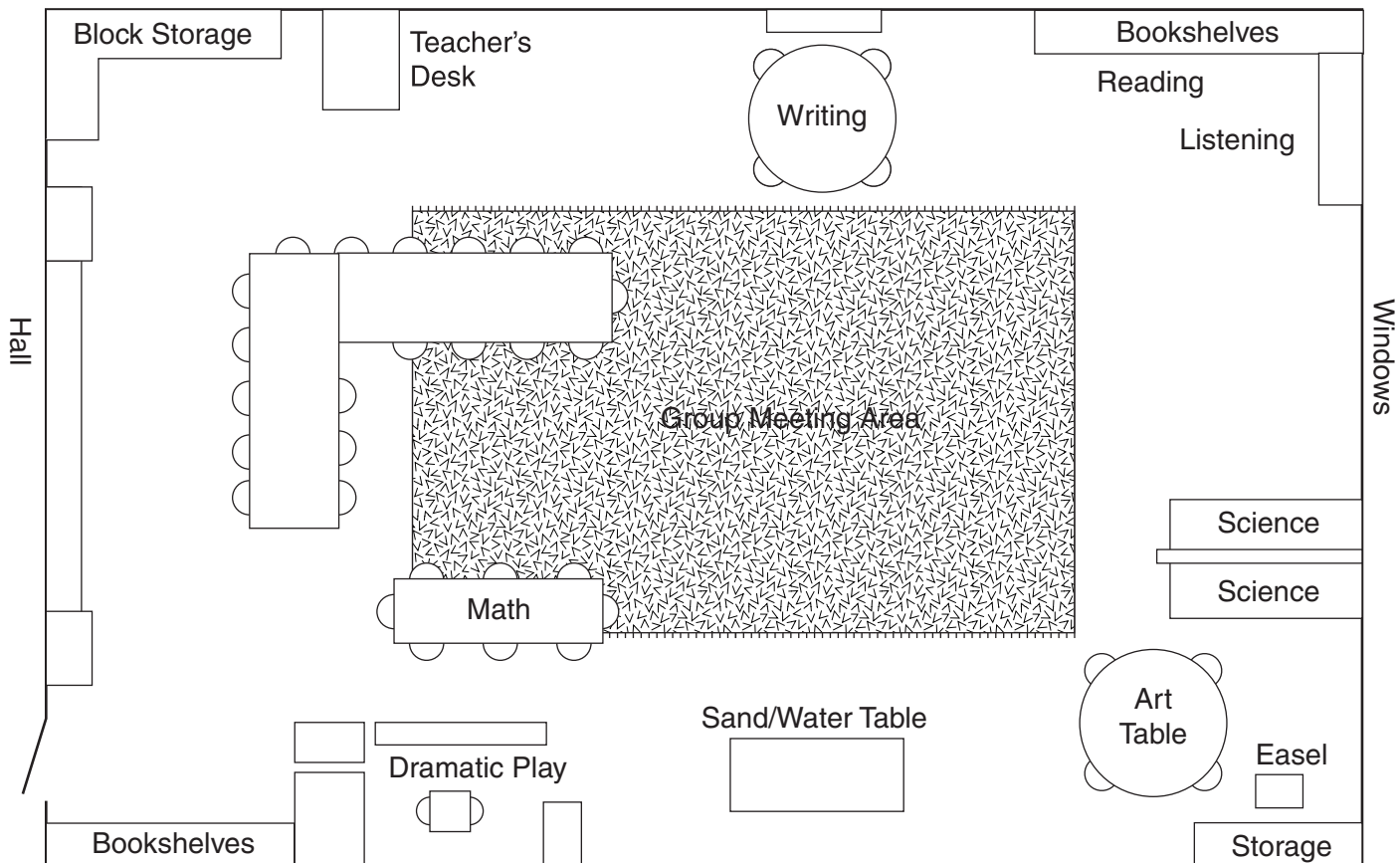
Use bookshelves, pegboards, throw rugs, or carpet pieces to define center boundaries.

TIP

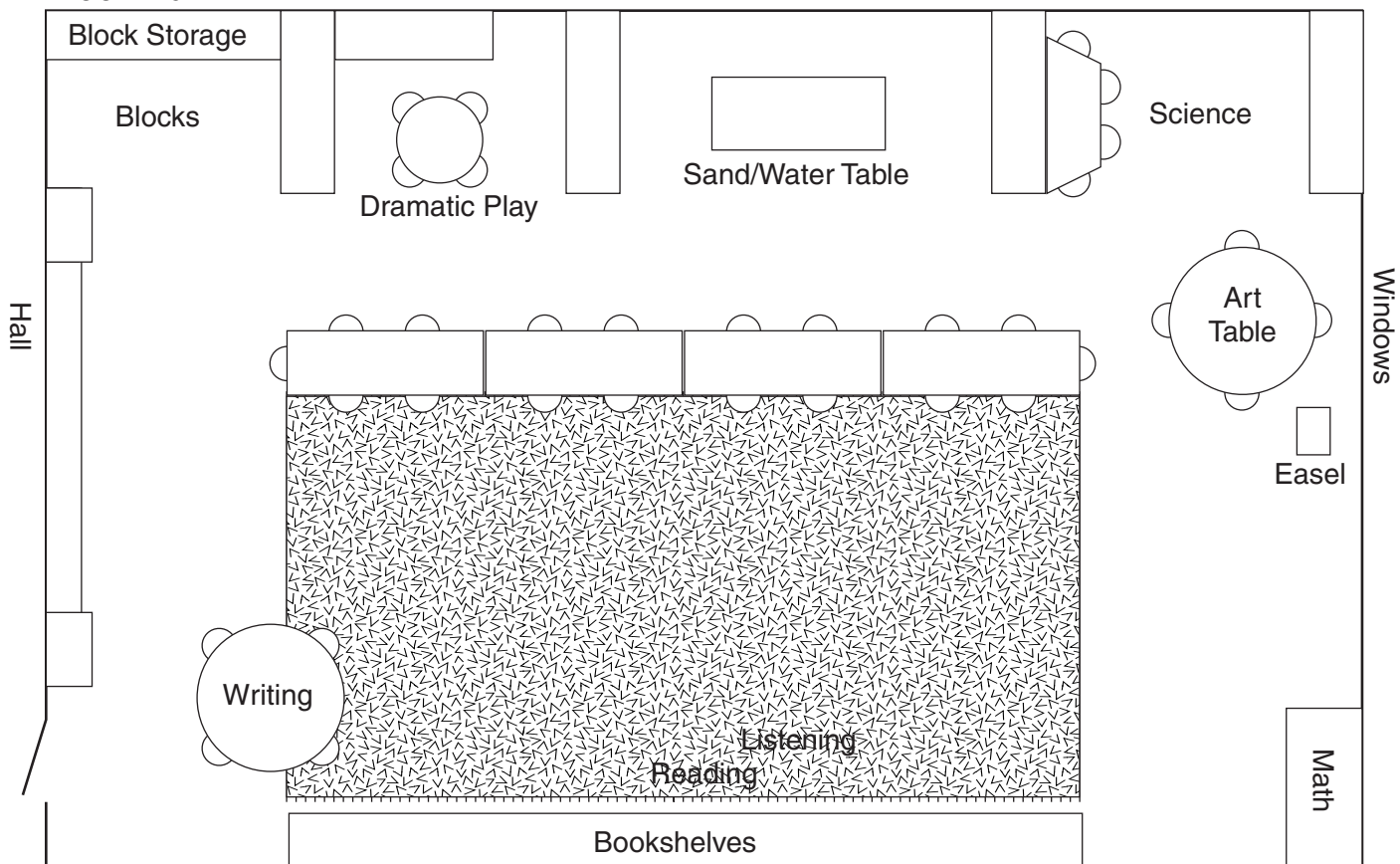
Center Set-up

Group noisier centers, such as blocks and dramatic play, away from quieter centers, such as reading and writing.

Floor Plan 1



Floor Plan 2



Choosing Materials for the Beginning of the Year



After you arrange centers, decide what materials to provide for the children. For the beginning of school, it is better to start with just a few choices in each center. We select materials for each center the same way we plan large- and small-group activities for the week. We consider the theme for the week and pick materials that support that theme.

Sometimes we choose a piece of children's literature as the basis for what we do the first week. For example, using Eric Carle's *The Very Hungry Caterpillar* as the basis for curriculum, we place magnifying glasses, specimens of caterpillars and butterflies, and some nonfiction books about insects in the science center. We limit

the books in the reading center to include only texts by Eric Carle, but include enough copies so each child can have at least one book at the same time. We put Unifix® cubes, one-inch blocks, and learning cards to support one-to-one correspondence in the math center. All the other centers have equally limited choices.

TIP

Center Management

It is okay for some shelves to be empty—or decorated with randomly placed stuffed animals—at the beginning of the year. By putting out only a few materials you will limit the activities that can be done. After the children have grown accustomed to working in centers, add more materials.

Appropriate play materials should be:

- ⑤ appealing and interesting to the child;
- ⑤ appropriate for the child's physical capacities;
- ⑤ appropriate for the child's mental and social development;
- ⑤ appropriate for use in groups of children; and
- ⑤ well constructed, durable, and safe for the ages of the children in the group.

— Martha B. Bronson, *The Right Stuff for Children Birth to 8*, 1995

When you start with only a few materials during the first week or two, children have time to learn classroom routines for choosing a center, selecting an activity, sharing materials with other children, and cleaning up. Some teachers are very explicit about the routines that their students should follow. Other teachers involve children in creating these routines. Either way, children need some time to learn how to make choices—among centers and among activities in those centers—and how to work with each other.

TIP

Storage/Organization

Don't forget to visit your school's cafeteria for resources when thinking about storage. Often, you can get plastic five-gallon buckets or gallon jars with lids for the classroom.

Adding and Changing Materials

As children learn the routines related to center time, you can add more materials to each center. Choose materials that extend and enrich the children's learning in general, such as play figures and vehicles in the block center or dress-up clothes and props in the dramatic-play center.

Additional materials may specifically support the current theme. As the year goes on, add and remove materials as the children's learning and interests dictate. Don't forget to recycle materials through the year. The clay that the children lost interest in during November suddenly becomes a new attraction when presented in April.

I gradually add new items as the children learn the classroom routines, show interest in various topics, and indicate a need for new challenges. For example, I start with measuring cups and spoons in the sand center, adding sifters and other equipment later.

— Bobbi Fisher, *Joyful Learning in Kindergarten*, 1998

At certain times, examine and rearrange center materials as needed. Some centers require that you add materials frequently. The writing center needs a constant supply of paper and writing instruments. The art center also needs continuous attention. Other centers can be reviewed on a weekly or biweekly basis. When children stop choosing a center, this indicates that they are bored with the choices available. At that time, store away some of the materials and offer others.

When materials become worn or broken, they should also be

removed from centers immediately and be repaired or discarded. Young children tend not to take care of materials when they are not in good condition.

Another reason to reorganize a center is to support children's new

interests. Early childhood educators should pay close attention to interests emerging among students. If a book, field trip, or television program raises children's curiosity, you should provide materials so that children can explore that topic.



TIP

Center Set-up

To encourage children's exploration into different aspects of literacy, incorporate reading and writing materials into all the centers.

TIP

Center Set-up

Inspect the classroom on a regular basis for hazards that could cause falls or other injuries.

Managing Children's Center Choices

Children spend more time engaged in activities that they choose for themselves. For this reason, we encourage children to select the center and the materials they will use. Of course, not every child can work in the same center at the same time. So a system for managing center choices should be put into place on the first day of school.

No one system works for every teacher in every classroom. Early childhood educators use different ways to manage the number of children working in each center. Typically, centers should be large enough to accommodate three or four children. In deciding how many children should be allowed in each center, make sure that there are



enough choices for children. Ideally, there should be at least twice the number of places to work as there are children in the classroom. With this many learning opportunities, you can help eliminate some of the problem of children wanting to be in the same center. Additionally, make sure that children understand the procedure for choosing centers.

There are several different ways to inform children how many are allowed in each center at a time. Some teachers glue library-pocket cards to center signs. For instance, if four children are allowed in the art center, the teacher glues four library pockets onto the art-center sign. At center time, each child receives an index card with his or her name printed on it. To choose a center, the child places the card in a pocket on a center sign. If there are no empty pockets, then the child must select another center.

Another way is to place colored dots on center signs and distribute



clothespins labeled with a child's name. If three children are allowed in the sand-and-water center, for example, three dots are glued onto the sand-and-water center sign. As they choose a center, children clip their clothespin over a colored dot. As in the pocket-card system, if no colored dot is showing, children must choose another center.

You can also hang teacher-created necklaces near the center's entrance.

Children can choose that center only if a necklace is available for them to wear while working in that center.

Other options for managing center choices are more centralized. Some teachers use one pegboard that lists all the centers. They indicate the number of spaces available in each center using hooks. Children hang their name tag (a small circle of poster board that can be hung on a hook) on a hook under the center name. Again, if no hooks are available, another choice must be made. Teachers who assign some center work often prefer this management method. They can hang children's names under assigned work. Then, when the children have completed their assigned work, they can move their names to select another learning center. Other variations include using Velcro® strips or magnets instead of hooks.

TIP

Center Set-up

If children are not picking a particular center, ask these questions:

- Do materials need to be exchanged or added to that center?
- Do the materials reflect the current interests of the students in the class?
- Are the materials presented in an organized, attractive way?
- Can the children in the class reach all the materials in the center?

TIP

Center Management

Rules for getting into and leaving centers should be posted and discussed daily at the beginning of the year.

The classroom teacher should position himself so that he can periodically scan the activities occurring in other areas.

— Michael L. Henniger, *Teaching Young Children, An Introduction*, 1999

Each of these systems is self-managing for young children. After you have carefully explained the procedure and demonstrated what you expect, most children can make center choices with few conflicts. Some will need continued adult support in remembering center-choice procedures.

Managing Children's Behavior in Centers

Young children need time to learn the behaviors that are expected of them in this new classroom. They need lots of conversation about “how we act in the block center,” “how we act in the sand-and-water center,” and so on. We involve children in establishing general rules for center time and in deciding about specific rules for each center. We usually approach this by discussing a “safe way” or a “responsible way” to use the center’s materials. As all the children gather near the block center, we indicate and name the materials on the shelves. We lead open-ended discussions about the possible activities for interacting with the materials. As the children make suggestions, we ask, “Is that safe? Is that a responsible way to play?” If the answer is no, we discuss ways to make the activity safe and responsible.

Children benefit from role-playing these behaviors and having the teacher reinforce appropriate behaviors in each center. We find statements that simply describe what the child is doing or statements of appreciation—“Breanna, you are being so careful when you turn the pages of that book,” or “Max, thanks for remembering not to build the blocks higher than your shoulders”—to be effective ways to reinforce appropriate behavior. Some teachers use language such as “I like the way...” but we see that as a bit manipulative and feel that it takes away from the child’s responsibility for self-control.

Despite conversations about appropriate behaviors, role-playing of “what we should do in centers,” and the teacher’s reinforcement of appropriate behaviors, some children will forget what is expected of them or will simply make a bad decision about what they do in centers. We do not believe in punishing young children for their forgetfulness or even for their bad decisions. We see these moments as an opportunity for teaching. Our long-term goal for children is to help them learn self-control of their behavior. So when these moments occur, we look at them as a time to “help” children with their self-control.

If a child engages in behavior that the class has agreed is inappropriate for center work, we first remind the child of appropriate behavior. If the misbehavior continues, we then offer the child the opportunity to choose another center where he or she can be self-controlled. Finally, if the misbehavior persists, we choose a center where we think the child can be self-controlled. For example, a typical center problem at the beginning of the year is children shouting to each other from one center to another. That doesn’t sound like a big problem, but it can be with several loud voices and only one quiet voice trying to communicate with the teacher. To deal with a child using a loud voice, we first remind the child to use a normal voice in the classroom. If it occurs again, we ask the child to find another center where he or she can work quietly. The third time, we choose a quiet center for the child. It will take time for some children to behave in appropriate ways, but with support all children can learn to operate in a learning center-based classroom.



TIP

Center Management

During a whole-group conversation, establish a class-made hierarchy of voice levels. Explore with the children what silent, whisper, quiet, talking, and loud voices mean. As a group, decide what voice level is appropriate for center time. Post the results of the discussion in the classroom and refer to it when necessary.

Centers to Support Young Children's Learning

Well-constructed, well-equipped centers support the learning of young children and offer opportunities for enhancing all areas of development. Centers allow children to interact with materials and with peers. The range of materials offered in each center allows children to work at their own developmental levels, so all children can be successful in their center work. Here are nine basic learning centers for the early childhood classroom:

ART CENTER

The art area of any early childhood classroom is an energetic place. Provide a wide variety of activities and media as young children need to explore all types of art creation. Painting at the easel with brushes is a good art experience, but children should also experiment with sponge painting, sand painting, screen painting, cotton-swab paintings, and so on. Art activities should not be limited to painting. Offer opportunities for working with different media, such as chalk,



colored pencils, charcoal, craypas, clay, play dough, collages, and print-making.

Art experiences for young children should focus on the process of creating rather than the way the final product looks. Encourage young children to experiment with different media and make their own creative decisions rather than to reproduce a teacher's example or follow directions for a predetermined model.

TIP

Center Management

Painting at the easel may be a new experience for some children. Place water in the paint jars and let children paint on colored construction paper to get accustomed to painting at an easel.

The act of drawing seems to be an occasion in itself, and the child is engaged in the process rather than in producing a product recognizable to an adult.

— W. Lambert Brittain, *Creativity, Art, and the Young Child*, 1979

This center can be a messy place, but children quickly learn that cleanup is a part of working in the art center. If you carefully explain and model cleanup procedures, children will follow the established procedures. Some preventive measures also help with cleanup. Placing this center near a water source aids cleanup time. Cover work surfaces with plastic or newspapers and store cleaning supplies, such as paper towels, sponges, and child-sized mops, close to the art center.

TIP

Center Set-up

Place the art center near water and on tile, if possible. Cover carpet with thick plastic, secured with strong tape, if tile flooring is not available.

What Children Learn in the Art Center

Through experimenting with different art media and creating a variety of art works, children learn

- ⦿ to express their ideas in new and creative ways.
- ⦿ concepts of shape, size, and location.
- ⦿ to distinguish shapes and to purposefully create shapes.
- ⦿ the names of colors and how to make new colors.
- ⦿ to control a variety of tools.
- ⦿ to make plans and implement them.
- ⦿ that their ideas have value.

TIP

Storage/Organization

If display space is limited, consider hanging a clothesline to display children's work. If convenient, this display can be in the hallway or outside. Position it low enough for children to hang their own work on the line. Store clothespins in a nearby basket.

Open-Ended Questions to Encourage Children's Thinking

- ⦿ Can you tell me about your painting?
- ⦿ What do you think would happen if you painted ____ on top of ____ (red/yellow, water/paint, sand/glue, etc.)?
- ⦿ What could you use to make ____ (streaks, parallel lines, etc.)?
- ⦿ How did you get the clay to be so ____ (smooth, hard, bumpy, rough, etc.)?
- ⦿ What does that remind you of?



Suggested Art Center Materials

- Ⓢ easel with containers for tempera paints, including skin-tone tempera paints
- Ⓢ other paints: fingerpaints, watercolor sets, tempera markers
- Ⓢ paintbrushes, paint rollers, foam brushes
- Ⓢ smocks or old adult-sized shirts
- Ⓢ crayons, markers, including multicultural crayons and markers; colored chalk
- Ⓢ glue, glue stick, scissors
- Ⓢ pipe cleaners, popsicle sticks
- Ⓢ ribbon, yarn, sequins, glitter, confetti, feathers
- Ⓢ straws, pie plates, and other three-dimensional materials
- Ⓢ masking and transparent tape
- Ⓢ clay, play dough, rolling pins, cookie cutters
- Ⓢ sponges
- Ⓢ manila, tissue, crepe, and newsprint paper
- Ⓢ art prints
- Ⓢ books that relate to art topics, biographies of master painters, picture books that use particular media as illustrations

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Providing paints of different textures and colors and a variety of brushes and applicators allows children to explore the properties of the art materials and how they can be used to create different paintings.

— Michael L. Henniger, *Teaching Young Children, An Introduction*, 1999

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Ideas for Art Center Activities

- Ⓢ Cut paper to fit into shallow boxes. Put tempera paint in a baby-food jar and encourage children to drop paint onto the paper with eyedroppers. Provide three or four marbles per box and have children gently rock the box back and forth to create marble paintings.
- Ⓢ Use unusual household items for painting: small spatulas, pastry brushes, chopsticks, toothbrushes, and Q-Tips®.
- Ⓢ Offer a collection of various items for collage: mylar, confetti, small dots of paper created with a hole puncher, feathers, Styrofoam pieces, buttons, and beads.
- Ⓢ Provide clay on a regular basis. Offer tools, such as rolling pins, pizza cutters, popsicle sticks to expand children's exploration of the clay.
- Ⓢ For a different type of clay, make Gloop (see p. 26).

HOW TO MAKE GLOOP

You'll need:

- ⑥ 2 cups of white school glue
- ⑥ 1½ cups room-temperature water
- ⑥ 3 teaspoons of borax powder
- ⑥ 1 cup warm water
- ⑥ airtight container
- ⑥ food coloring (optional)

To do:

1. Mix white school glue with room-temperature water.
2. Dissolve the borax powder in a cup of warm water.
3. Slowly pour the borax mixture into the glue mixture, stirring constantly. Knead the mixture about one minute until it is smooth. Add a few drops of food coloring for colored Gloop. Store in an airtight container.
4. Provide small plastic cups (like those used for condiments at fast-food restaurants or for pills at the hospital), spatulas, pastry cutters, melon-ball scoopers, and plastic pizza cutters to use with the Gloop.

BLOCK CENTER

The block center is usually very popular with young children, perhaps because of the open-ended nature of blocks. Blocks are versatile. With children's imaginations, blocks can become anything they wish them to be.

With almost no teacher intervention, children improve their visual perception, hand-eye coordination, and motor skills. As teachers spend time in the block center, describing children's actions or commenting about their own block constructions, blocks become the elements for different types of learning. They become math materials as children sort, classify, count, or use them for patterning. When used to re-create settings for stories, blocks turn into literature-extension materials. They become social studies materials as children reproduce field-trip sites or their home and school neighborhoods. Blocks can also be used to experiment with science concepts such as balance or gravity. Adding accessories, such as animal figures, people figures, and vehicles, enhances children's dramatic play in the block center.



Because they respect others' work, children learn to maneuver with finesse between crowded buildings, achieving balance, control, and spatial awareness.

— Sally Cartwright, *Young Children*, 1988

Offer blocks in sufficient numbers to children so that their play is not restricted. A large space for constructions should be available, but this center needs to be somewhat self-restricting (by walls or dividers) so that block building doesn't take over the entire classroom. To organize and store blocks, sort them into containers for each block shape or place them on low shelves marked with identifying shapes so that children know where on the shelves to place each type of block.



Adding containers of different props to the block center at different times during the year extends children's block play. To enhance the complexity of block play, allow the children to leave their creations standing for several days so that they can add to the structure instead of starting new constructions every day.

TIP**Storage/Organization**

Line the shelves of the block center with paper. With a dark marker, outline the blocks shapes on the paper. This outline will help the children return the blocks to their proper place. Use clearly labeled baskets to store smaller blocks.

Block projects can span long periods of time—and can be as extensive and detailed as children's interest and curiosity allow.

— Karen Weiss, *Scholastic Early Childhood Today*, 1997

What Children Learn in the Block Center

Through building a variety of block structures, children learn

- ⊗ concepts of shape, size, length, location, space, and angles.
- ⊗ concepts of balance and gravity.
- ⊗ to create and repeat patterns.
- ⊗ to cooperate with others.
- ⊗ to solve problems.
- ⊗ to make a plan and implement it.
- ⊗ to see their constructions as models for recreating sites.

Open-Ended Questions to Encourage Children's Thinking

- ⊗ How could you two work on this ____ (farm, factory, grocery store, etc.) together?
- ⊗ What else do you need to build that? Where could you get it?
- ⊗ Where in the book did you get that idea?
- ⊗ Can you build the ____ (park, store, museum, etc.) we visited today?
- ⊗ Can you build the ____ (nursery-rhyme setting, house, forest, etc.) we read about today?

Suggested Block Center Materials

- ⊗ unit blocks, large hollow blocks, cardboard blocks, Legos® and Lego® tables
- ⊗ sets of wooden people, such as family members, airport crew, etc.
- ⊗ sets of animals, such as farm animals or zoo animals
- ⊗ cars, trucks, airplanes; sets of small street signs, wooden doll furniture

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- Ⓢ rulers, yardsticks, and retractable tape measures
 - Ⓢ collection of nuts and bolts
 - Ⓢ books related to buildings and construction

Ideas for Block Center Activities

- Ⓢ Create pattern cards by tracing unit-block patterns onto sentence strips made of heavy card stock. Have children copy and extend those patterns. Encourage children to create patterns of their own by making sentence strips and markers available in the center.
- Ⓢ Offer books and props to expand children's block-building efforts, such as *Building a House* by Byron Barton, along with pieces of carpet and fabric, small pieces of wood which can serve as furniture, Astro Turf, and/or plastic trees.
- Ⓢ Post photographs of different types of buildings: castles, skyscrapers, barns, etc., to stimulate more complex block building.
- Ⓢ Encourage children to re-create environments from a recent field trip.
- Ⓢ Add different sizes of poster board and felt-tip markers so that children can create their own signs.

DRAMATIC-PLAY CENTER.....

Children in this center look like they are simply having fun, but dramatic play is much more than just fun. Children learn through the pretending they do in this center. As children act out play themes, they learn to share ideas, make group decisions, and cooperate with each other. Dramatic play also provides multiple opportunities for children to practice language and literacy skills, and to enhance cognitive development.

Incorporating print materials in dramatic play provides a natural extension of children's work and gives them an opportunity to work with challenging and stimulating activities.

— Johanna Einarsdottir, *Childhood Education*, 1996

Many early childhood educators begin the year with a “home center” or “housekeeping center” because children's first play themes usually focus on familiar experiences. Children replay home and family experiences, such as preparing meals, doing laundry, or caring for younger children. Support this type of play with child-sized furniture that represents a kitchen, living room, or dining room; dress-up clothing; and materials, such as cooking utensils, dishes, food containers, and dolls.

While the play theme of home and family commonly occurs in the dramatic-play center, it is not the only one. Children may bring math manipulatives into the “home” and play “restaurant.” Sometimes teachers may provide new props to support play themes they see





emerging, or put new materials in the dramatic-play center to encourage new play themes. At still other times, teachers and children work together to re-create the center into a new play theme.

Design the dramatic-play center so that children have sufficient space to move around easily. Teachers often use the home center furniture such as a refrigerator, stove, sink, or rug to define this area. The dramatic-play center tends to be a noisy one, so it should be situated near other noisy centers and away from the quieter centers.

Teachers often collect items that could be used for different play themes. For example, a prop box for beach-related play might contain beach towels, old swimsuits, empty suntan-lotion containers, old sunglasses, and magazines. Another collection to encourage play about bakeries could contain rolling pins, mixing bowls, measuring spoons and cups, an old mixer with the electrical cord removed, cookie cutters, aprons, and baker's hats. To encourage play themes about doctors and nurses caring for sick people, offer white coats, stethoscopes, cotton swabs, ankle wraps, and patient charts. Items for prop boxes can be collected from surplus household items, garage

sales, or thrift shops. You can also send notes home to children's families to let them know what you are looking for.


Because they play around with new ideas and novel solutions to problems, children who engage in such pretending are able to develop abstract thinking, creativity, flexibility, the ability to communicate, and the ability to get along better with their peers.

— Janice J. Beaty, *Preschool Appropriate Practices*, 1992

What Children Learn in the Dramatic-Play Center

Through taking on a variety of roles in different play themes, children learn

- ☉ to be flexible in their thinking.
- ☉ to express themselves in sentences.
- ☉ to experiment with different adult roles.
- ☉ to work through worries in a safe context.

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- Ⓢ to sort and organize things.
 - Ⓢ to make decisions.
 - Ⓢ to negotiate and compromise.
 - Ⓢ to improvise and use things in a symbolic way to represent something else.
 - Ⓢ to carry out ideas with the cooperation of others.

Open-Ended Questions to Encourage Children's Thinking

- Ⓢ How could you decide ____ (who is going to be the mother, what to cook, etc.)?
- Ⓢ Do you remember the story we read this morning? Could you use that in your center?
- Ⓢ How could you change the center to make that?
- Ⓢ Can you find someone to help with that?
- Ⓢ I took this photograph of you yesterday in this center. What words could make a label so other people will understand what you were playing?

Suggested Dramatic-Play Center Materials

- Ⓢ child-sized kitchen/dining-room furniture
- Ⓢ cooking utensils, empty cans of food or empty food boxes
- Ⓢ cookbooks, telephone, and telephone books
- Ⓢ dolls of different ethnicities, cribs, and items used to care for infants
- Ⓢ dress-up clothes; props to support several different play themes
- Ⓢ books about families or other play themes

Ideas for Dramatic-Play Center Activities

- Ⓢ Rearrange dramatic-play center furniture into a grocery store. Add empty boxes and cans, paper and plastic bags, signs from grocery stores, grocery circulars, cash registers and receipts, coupons, and pretend as well as real money.
- Ⓢ Collect materials for a variety of prop boxes to stimulate different play themes, including bakery, repair shop, fire station, and doctor's office.
- Ⓢ Using supportive props, turn the dramatic-play center into the setting of a popular story book or into the setting of a recent field trip.

LISTENING CENTER

The listening center provides essential experiences that promote language and literacy development. Children can listen to the “book language” as stories are read, or follow along with the illustrations or text as they listen to the story being read. They can listen to a variety of music as well.



Sometimes the time they spend in the listening center offers a refuge for children who need some quiet time in an otherwise active early childhood classroom.

This center requires very little equipment or space. In fact, the listening center can be set up in a small area on the floor. The equipment for a listening center can be as simple

as a tape recorder and headsets in a small space. A basket or plastic container placed nearby can serve as storage for audiocassettes or tapes and books. In this center,

children can listen to books or poetry read aloud, environmental sounds, or musical tapes. Prerecorded tapes offer children the opportunity to hear stories read over and over. They can listen to favorite songs without disturbing children in other centers. They can also listen to tapes recorded by the class, by individual children, or by the teacher.



We usually post menus of books that are available in the listening center on any given day. We create the menus two different ways:

At the photocopier, we reduce the front cover of a book to fit onto a sentence strip. Glue the image to the strip, and print the book's title next to it. We post these sentence strips near the listening center as the menu.

Another way is to cut out the colored pictures of book covers from monthly book club order forms. We mount these on sentence strips and write the name of the book on the strip.

TIP

Center Set-up

Place the reading and listening centers close together so the two centers can share the comfortable furniture. Organize bean-bag chairs and pillows for easy access by the children.

TIP

Center Management

Request an order form from Scholastic Book Club by writing Scholastic Book Club, 2931 East McCarty Street, Jefferson City, MO 65102-7503, or at the Web site www.scholastic.com.

TIP

Center Set-up

Label the buttons on the tape recorder so that non-readers understand their function. The stop/eject button can be labeled with a simple stop sign drawn in red, the play button can have a capital **P** and a green right-facing arrow, and the rewind button can be labeled with a capital **R** and a red left-facing arrow. Use a tiny dot of paint (bright nail polish works well) on the volume control to indicate a suitable volume level. Similarly, mark a dot on the balance control if needed.

What Children Learn in the Listening Center

Through listening to variety of audiotapes, children learn

- Ⓢ that no matter how often the same story is read, the text stays the same.
- Ⓢ to relate what happens in a story to their own experiences.
- Ⓢ new vocabulary from the context of stories read aloud.
- Ⓢ to differentiate between familiar and similar sounds.
- Ⓢ to appreciate different types of music.

Open-Ended Questions to Encourage Children's Thinking

- Ⓢ How do you use your imagination while you are listening to a story?
- Ⓢ How did you decide who starts the tape player?
- Ⓢ How could you rearrange those pillows to make room for another child?
- Ⓢ How did you adjust the ____ (volume, balance, tone, etc.)?
- Ⓢ Does this story ____ (remind you of something you've done, remind you of any other stories, give you ideas for writing, etc.)? How?

Suggested Listening Center Materials

- Ⓢ tape recorder with 3–4 headsets
- Ⓢ collection of age-appropriate books with accompanying audiocassettes
- Ⓢ collection of tapes of various music
- Ⓢ collection of environmental sound tapes
- Ⓢ tapes made by the class, individual students, or the teacher

Ideas for Listening Center Activities

- Ⓢ For individual listening, place earphones in the center. One of these can be plugged into the tape player for one child's use. For sanitary purposes, use the kind that do not fit into the ear itself, but cover the outer ear.
- Ⓢ Record the class's choral reading of a favorite book. Put the tape and book in a gallon-sized, sealable, plastic storage bag and add this to the listening-center menu.
- Ⓢ Offer audiocassettes of instrumental music from several different cultures and include child-made instruments, such as drums made from oatmeal boxes, kazoos made from paper-towel tubes, or tambourines made from aluminum pie tins.
- Ⓢ Make a tape of common sounds. Have children guess what makes the sounds.
- Ⓢ Record each child in the class answering one interview question, such as "Who are the people in your family?" Transcribe the answers and include a printed copy with the tape as a choice in the listening center.



MATH CENTER

Mathematical skills for young children include classification, counting, patterning, one-to-one correspondence, number sense, and early understandings of measurement, geometry, time, and money. These skills are best learned in a natural way. A well-organized math center where



children explore these concepts, accompanied by the guidance of the teacher, provides an exemplary environment for children to develop these math skills.

Children working in the math center use a wide variety of learning materials. Materials range from buttons or seeds that children have collected to commercially produced math manipulatives, such as pattern blocks and colored pegs. In the math center, children sort, classify, order, count, compare, and graph collections of objects. These math manipulatives are meaningful to children and the reasons that children engage in these activities are specific and real. Young children should

not be asked to perform contrived mathematical tasks such as those typically related to math worksheets. They need to touch things and move them, as they relate a sense of number to the objects. The concrete materials and meaningful experiences support children as they construct their own mathematical information.

Developmentally appropriate math lessons occur... (through) a self-serve snack center. Enthusiastic children eagerly count and measure their own portions and construct useful math concepts with immediate personal relevance.

— Linda Meriwether, *Young Children*, 1997

If several children are working in the math center it can become noisy. Locating the center on a carpeted area reduces some of the noise created from dropped materials. Some noise is lessened when children have the choice of using math materials at a table or on the floor. The floor space for this center should be relatively large, and both the floor and table space should be non-

descript, without patterns of any kind. Storage boxes clearly labeled with materials and organized on shelves make it easier for children to find what they are looking for and to put materials back where they belong.



TIP

Storage/Organization

Clear tape placed around the outside of the storage cartons helps keep them from cracking.





What Children Learn in the Math Center

Through interacting with a variety of math materials, children learn

- ⊗ to notice details and likenesses and differences in objects.
- ⊗ concepts of color, size, and shape.
- ⊗ numerical concepts of more than and less than.
- ⊗ sorting and classifying.
- ⊗ patterning.
- ⊗ counting and one-to-one correspondence.
- ⊗ concepts of groups or sets.
- ⊗ number sense.
- ⊗ logical reasoning.

Open-Ended Questions to Encourage Children's Thinking

- ⊗ How do you know that?
- ⊗ How can you make a pattern? Read the pattern to me.
- ⊗ How did you sort the ____ (shells, buttons, keys, etc.)?
- ⊗ How could you figure out if that is more or less than last time?
- ⊗ How could you keep score for that game?

Suggested Math Center Materials

- ⊗ collections of real objects to use for sorting and counting: buttons, shells, keys, pebbles, seeds, nuts, etc.
- ⊗ nesting cubes
- ⊗ cards, dot cubes, dominoes, playing card decks
- ⊗ pattern blocks, one-inch square tiles, Unifix® cubes, two-color counters, Cuisenaire® rods
- ⊗ stringing beads, pegboards and pegs, geoboards, and rubber bands
- ⊗ rulers, yardsticks
- ⊗ cash register, play money
- ⊗ balance scales, hourglass, kitchen timer
- ⊗ counting books and other books which have math themes

Ideas for Math Center Activities

- ⊗ Gather collections of small items for children to sort. You will need about 100 pieces of each item. Store them in large plastic cartons. Appropriate items include, but are not limited to, pom-pom balls, washers, nuts and bolts, keys, screws, small plastic craft items, shells, bread tabs, and buttons.
- ⊗ Using small index cards or squares of tag board, make a set of number “memory” cards. On one

card, write a numeral. On the matching card, draw a set of that number. Have the children turn the cards upside down and play as they would play the game “Memory.”

- ⑥ Offer two-color counters and counting books, encouraging children to match the correct number of counters to the pictures depicting each numeral.
- ⑥ Invent your own games using regular playing cards. For younger children, give them only the 3’s, 4’s, and 5’s from several decks and play “Find the Fours.” For older children, have them turn over two cards at a time and play “Double Addition.”
- ⑥ Make task cards showing a pattern of pattern blocks, beads, or Unifix® cubes. Have the children match the pattern and extend it.



The end of the day is a good time to review what happened and plan what will take place the next day...draw pictures that highlight important events and have the children place them in sequential order.

— Rosemary Althouse, *Scholastic Early Childhood Today*, 1997



READING CENTER

The reading center is a place where children can choose among a wide variety of literary experiences. As they select their own reading material and discuss stories and factual information with each other, they expand their understandings about written language.

The primary purpose for the reading center is for children to interact with self-selected books simply for the sheer pleasure of the experience. However, as they engage in print, they develop literacy knowledge and skills. They enhance their emerging reading skills and begin to view themselves as “real” readers.

The reading center should be one of the most inviting centers in the classroom. Station it in a quiet part of the classroom. Pillows, soft chairs, and carpeting or rugs help create a relaxing atmosphere. Some teachers build lofts or use items such as antique claw-footed bathtubs to help create the idea that the reading center is a special place in the classroom.

Present a wide variety of books for children to choose from, such as class favorites, predictable texts, wordless books, concept





books, classic fairy tales, poetry, and class-created and child-made books. Children are more likely to choose a book when they can easily see the front cover—book spines are not particularly appealing to young children. Display several books so that children can see their front covers. You can group books of similar genre and store them together in baskets or plastic containers on low bookshelves. To expand children's exploration with the printed word, you can add flannel boards with a selection of storybook characters, letters of the alphabet, or other objects. A magnetic board and letters can also be placed in the reading center. You can even

set up a puppet stage nearby. Posting the letters of the alphabet with familiar words that begin with each letter makes a word wall that children can use as a resource.

What Children Learn in the Reading Center

Through exploring self-selected books and re-creating stories with flannel boards or puppet theaters, children learn

- ⊗ to express ideas with words.
- ⊗ to take on the role of someone else.
- ⊗ to communicate with voice tones as well as words.
- ⊗ to retell familiar stories.
- ⊗ to use imagination to create their own stories.
- ⊗ to gain factual information from books.

Open-Ended Questions to Encourage Children's Thinking

- ⊗ How did you choose that book?
- ⊗ Would you recommend that book to anyone? Who would like it? Why?
- ⊗ Is there another book you know by that author?
- ⊗ Are all of that author's books alike? How are they alike/different?
- ⊗ What is special about those illustrations? Why do you like/dislike them?

Suggested Reading Center Materials

- ⊗ wide variety of picture books, fiction and nonfiction, poetry
- ⊗ big books
- ⊗ class-made and child-made books
- ⊗ children's magazines



-
- ⊗ pillows, cushions, or other items to make area cozy and inviting
 - ⊗ posters

Ideas for Reading Center Activities

- ⊗ Post signs in the center to stretch the children's thinking about books. For example, "Which Strega Nona book did Tomie de Paola write first? How do you know?"
- ⊗ After you finish reading a book aloud to the class, add it to the reading center. Keep a basket in the center labeled "Books Our Class Has Read." Young children are much more likely to read and reread a familiar book than an unfamiliar one.
- ⊗ Periodically make book collections of interest to the class. For example, ABC books can be gathered in a basket and labeled as "Alphabet Books." Each child can collect a favorite book from the class collection. Group these books together in a basket and place in the reading center. A simple written rationale for why this book was a favorite can be completed by each child and included inside each book.
- ⊗ Explore environmental print. Start a "Book of Logos" to which the children add logos that they can read, or take a print walk around the school's neighborhood then compile a "Words We Saw" book.
- ⊗ Conduct a book survey. For a week, read one book per day written by the same author. On Friday, have children choose their favorite book by placing a Post-It® on a poster board listing the five titles. Tally the votes for each book, compare the sums, and determine the class's favorite book by that author.
- ⊗ Collect puzzles that are related to the alphabet or to particular books.



What can you do with a book besides read it? Make a game of it; make a puzzle of it; make puppets of its characters; make costumes for its characters; make masks for its characters; make a shadow play of it; make a felt board of it; make a play of it; make sound effects for it; write your own version of it; introduce a new topic with it; build with blocks about it; cook food from it.

— Janice J. Beaty, *Picture Book Storytelling: Literature Activities for Young Children*, 1994

SAND-AND-WATER CENTER



Young children choose to work in the sand-and-water center for many reasons. They can be creative or scientific as they explore the sand or water and accompanying props. Equal to the opportunities for exploration, the sand-and-water center draws children because of the soothing nature of working with these materials.

When set up as a water center, this area of the classroom offers children

opportunities to explore qualities of a liquid. As a sand center, it allows children to explore the characteristics of a pourable solid. These open-ended materials allow children a wide range of learning experiences, from using their imaginations to create play themes in the sand center to performing simple science experiments in the water center to exploring measurement in both setups. As children work in this center, they experiment with cause and effect, refine problem-solving skills, and explore basic math concepts, such as volume, measuring, and comparing.



In the early childhood classroom or outdoors, a water center can be the catalyst for building concepts, developing language, and promoting social skills.

— Sandra Crosser, *Young Children*, 1994

If children are to receive the most benefits possible from sand play, it is crucial that the teacher observe and interact with the children playing in the sand area.

— Jan Ewing and Anne Eddowes, *Dimensions of Early Childhood*, 1994

The sand-and-water centers can be set up in the classroom or outdoors. These can be offered alternatively if only one container is available. Inexpensive plastic containers that are sold for under-



the-bed storage can also be used to offer sand-and-water centers at the same time. If the center is placed outdoors, it

TIP

Center Set-up

If the classroom has a sink, that area can be the water center. Mark a high-water line on the sink with a piece of tape to indicate how much water can be placed in the sink at one time. Teach the children to place the stopper in the bottom of the sink. At cleanup time, the children drain the sink, gather the materials, and place them in a plastic basket. Store this basket in the sink until the materials have a chance to drip or air dry.



should be in a shady area that can be supervised easily. Vinyl smocks should be available to protect children's clothing during water play, and materials for cleaning should be stored close to this center.

TIP**Center Management**

Store a small broom and dustpan with the other materials near the sand table. Teach each child how to sweep the sand into the dustpan using the hand broom. Teach the children to cooperate to complete the job, one child holds the dustpan and one child sweeps.

What Children Learn in the Sand-and-Water Center

Through experimenting with different equipment in water or in sand, children learn

- ⊗ hand-eye coordination as they pour.
- ⊗ that some things sink and some things float.
- ⊗ concepts such as wet, dry, and evaporation.
- ⊗ to compare, observe, measure, predict, and make discoveries.
- ⊗ relative capacity of different sizes of containers.
- ⊗ what happens when you add different items, such as soap or food coloring.
- ⊗ how to cooperate as they share materials.

Open-Ended Questions to Encourage Children's Thinking

- ⊗ Why do you think the sand molds didn't hold their shape?
- ⊗ You made the waterwheel go very fast? What could you do to make it turn very slowly?
- ⊗ I see you are trying to pour the sand into that small opening. What could you use to get the sand in the bottle without spilling it?
- ⊗ How could we use these cookie cutters in the sand center?
- ⊗ Will that sink or float? What is your prediction? Why do you think that?

Suggested Sand-and-Water Center Materials

- ⊗ sand or water (or other materials such as rice or birdseed)
- ⊗ measuring cups and spoons
- ⊗ small buckets, shovels, and sand molds
- ⊗ small broom and dustpan
- ⊗ spray bottles, sieves, funnels, and plastic tubing
- ⊗ plastic turkey basters and medicine droppers
- ⊗ ladles, eggbeaters, margarine containers
- ⊗ sponges

- ⑥ Styrofoam, wood, plastic, and cork pieces
- ⑥ water-works toys
- ⑥ vinyl smocks

Ideas for Sand-and-Water Center Activities

- ⑥ Add drops of food coloring to tint the water in the water center.
- ⑥ Purchase clear plastic tubing at a building supply store. Plastic elbows and T-joints can be added to connect small sections of the tubing.
- ⑥ In addition to different sizes of measuring cups and pouring containers, add other items to encourage exploration: sponges cut to fit a child's small hand, funnels, eyedroppers, turkey basters, eggbeaters, detergent, and squirt bottles.
- ⑥ Fill one side of a dog's two-sectioned food dish with water colored with food coloring. Provide a turkey baster or eyedropper so that children can transfer the water from one side to the other. When the children are comfortable with this task, extend the fine-motor coordination practice to smaller containers. Place colored water in a few sections of a muffin tin or ice-cube tray.
- ⑥ Punch holes in the bottom of milk or margarine containers to make sieves. Use a variety of sizes and containers and vary the number and size of holes.

SCIENCE CENTER



Young children seem to be naturally drawn to science when it is a hands-on experience with real objects. Science is not just a body of knowledge. It is a way of thinking, so teachers need not worry about feeling “prepared enough” to teach science. Teachers simply need to observe and explore along with the children.

TIP

Center Set-up

Position the science center near windows; access to water is preferable.

Take a science idea and spin it off with a mix of wonder, curiosity, and fun. See how far it reaches to give your young children chances to discover the science that is everywhere in their world.

— Maryann Ziemer, *Young Children*, 1987

Having interesting, concrete materials to observe and explore encourages the natural curiosity of young children. Scientific skills such as observing, classifying, communicating, measuring, inferring, and predicting are natural outcomes of working with items from the worlds of natural and physical science. Through interacting with objects from nature, such as rocks, fossils, and leaves, children learn to observe and classify. When involved in simple experiments, children learn to

measure, infer information, and predict what may happen. By talking with each other about center materials, they learn to communicate what they are observing.

The science center allows for a wide range of experiences. Through caring for plants and animals, children learn more about the natural world. When working with teacher-collected materials, such as magnets, rain gauges, and balance scales, children learn to experiment. By interacting with teacher-made science objects, children learn to analyze information and make predictions. These



objects could include smelling jars—each with a separate smell (vanilla or almond extracts, lemon or orange juice)—or sound jars—opaque containers filled with items that make different sounds.

TIP

Center Management

Caution children about using magnets around computers or computer disks.

TIP

Storage/Organization

Plastic bins stacked vertically make good storage in the science center. Different collections can be stored in each bin, and children can have easy access to them.

Children make sense of the world in a very concrete way, and literature and storytelling unaccompanied by scientific explanations can lead to misconceptions. You can help your students overcome their misconceptions by integrating science and children's books in the proper context.

— Kenneth W. Miller, Stanley F. Steiner, and Carolyn D. Larson,
Science and Children, 1996

What Children Learn in the Science Center

Through exploring plants, animals, and other hands-on science-related experiences, children learn

- ⑥ new vocabulary.
- ⑥ concepts of texture, color, weight, size, and characteristic.
- ⑥ to group objects into categories.
- ⑥ to observe likenesses and differences.
- ⑥ to appreciate nature.

Open-Ended Questions to Encourage Children's Thinking

- ⑥ Look more closely. What do you observe?
- ⑥ Where do you think we could find out more information about ____ (any science topic)?
- ⑥ What does that remind you of?
- ⑥ Haven't we seen something like that before?
- ⑥ Do those ____ (leaves, tracks, bubbles, fossils, etc.) have a pattern? Really? Why do you think that?

Suggested Science Center Materials

- ⊗ pets suitable for classrooms, such as guinea pigs, hamsters, snakes, turtles, rabbits, fish, birds
- ⊗ live insects
- ⊗ empty nests
- ⊗ different types of plants, seeds, small containers, and potting soil
- ⊗ collections of rocks, fossils, or seashells
- ⊗ bark, twigs, leaves, feathers
- ⊗ sound jars, smelling jars
- ⊗ scales, magnets, magnifying glasses, and binoculars
- ⊗ eyedroppers and funnels
- ⊗ locks and keys, pulleys and levers
- ⊗ charts and posters of science-related interests (purchased or made by children)
- ⊗ books related to other items in the center
- ⊗ magazines such as *Ranger Rick* or *ZooBooks*



Ideas for Science Center Activities

- ⊗ Recycle old film canisters as smelling jars. Punch holes in the plastic top with an ice pick. Place spices and other distinctive-smelling foods, such as cinnamon, garlic, oregano, lemon or orange peel, vanilla beans, and coffee beans, inside and close the lid.
- ⊗ Make a rebus chart for planting seeds. Encourage each child to plant two or three different types of seeds in individual cups. Provide blank books for children to use as observation logs and encourage them to record plant growth through drawing.
- ⊗ Create “mystery bags” by placing a common object in a paper bag. Ask children to examine the object using only their sense of touch and guess the object. As the year progresses and children have had many experiences with this activity, objects can become less common.
- ⊗ Place a single object in several plastic eggs or film containers. Make duplicates. Have children shake the containers and try to match two containers by the sounds they hear.
- ⊗ Ask children to build ramps of different heights, then experiment with rolling balls or toys cars down the ramps. After several opportunities for informal experiences, ask children to rebuild the ramps, predict how far the objects roll, then record how far the balls or cars actually roll.

WRITING CENTER

As children begin writing, they may use drawing, scribbling, or developmental spelling to express themselves. All these forms of writing should be valued and encouraged. Young children typically need adult encouragement to pursue their own way of writing. Adults who care about writing development look for opportunities when writing will be meaningful to children, and encourage them to make their own decisions about what and how they write.

Writing materials should be available in most centers, but a separate writing center is still an important area for early childhood classrooms. For young children, writing is a social experience. They need a shared area to experiment with writing and to talk with each other about what they are doing.

Once children get into the routine of daily writing, they develop ownership over their work. They gain control over their writing when they can choose their own topic, paper, and format, whether to work alone or with a friend, and how to file and share their work.

— Bobbi Fisher, *Joyful Learning in Kindergarten*, 1998

Stock the writing center with several types of paper, a variety of writing utensils, and other items that children might use in the process of creating drawings,



books, stories, poems, notes, letters, signs, invitations, greeting cards, and anything else they decide to create. A typewriter will add a different dimension to the children's work. While a computer offers many opportunities for reading, math, and

science learning, a simple word-processing program and kid-friendly graphics software open endless possibilities for children's writing. Frequently, teachers include a tape recorder in the writing center. Some verbal children find this a useful way to recall what they want to write. They recall their thoughts, then they can stop and start the tape as they need to, so that they can write all of their ideas.

What Children Learn in the Writing Center

Through exploring different papers and writing utensils, children learn

- © that they can communicate in writing.

TIP

Center Management

Place two different colors of paper in the writing center at first. After the children have grown accustomed to using the center, add more colors of paper and other choices, such as ruled tablet paper, half-and-half story tablet paper, green-bar computer paper, or notebook paper.

TIP

Storage/Organization

Store alphabet stamps in ice-cube trays. On the bottom of each compartment, write the letter. Then place that stamp in that compartment. Stamps with pictures or designs can be stored together in a separate ice tray.

- Ⓢ that they can use their knowledge of letter–sound associations to write whatever they want to write.
- Ⓢ that there are many different types of writing.

Open-Ended Questions to Encourage Children's Thinking

- Ⓢ Where could you look to find out how to ____ (make that letter, spell that word, etc.)?
- Ⓢ If that is something that other people would like to write about, could you add it to our class's topic list so other people can use the idea, too?
- Ⓢ How could you add that information to your story?
- Ⓢ What could you do to make that idea clearer to your reader?
- Ⓢ Could you add or delete anything to make this piece stronger?



Suggested Writing Center Materials

- Ⓢ different types of paper, in various sizes, shapes, colors, and textures
- Ⓢ index cards
- Ⓢ markers, crayons, pencils, colored pencils
- Ⓢ pencil sharpeners
- Ⓢ paper clips
- Ⓢ envelopes
- Ⓢ tape, glue, glue stick
- Ⓢ rubber stamps and ink pads
- Ⓢ staplers, staple remover

Ideas for Writing Center Activities

- Ⓢ Lower the legs on tables so that children can kneel beside them to work.
- Ⓢ Store magnetic letters, alphabet puzzles, alphabet blocks, letter tiles, and sponge letters in small plastic shoeboxes near this center. Keeping lids on the boxes helps prevent accidental spills. The children can use the letter forms as a reference for forming letters when writing.
- Ⓢ Organize a Making-the-Alphabet Box for the writing center. Include chalkboards and chalk, pipe cleaners, and clay to form letters.
- Ⓢ Ask families to send in real-world forms (receipts, ledgers, mailing labels, magazine order forms, restaurant order forms, etc.) for the writing center. Allow children to fill out forms as they wish.
- Ⓢ Set up mailboxes in the classroom for each child. Children can write letters, draw pictures, and deliver them through “class mail.” The teacher should also write notes to children.
- Ⓢ Using an extra-long stapler, staple several sheets of 8 1/2- by 11-inch white paper in the middle of the pages. These blank books resemble “real books” from a young child's perspective.

Centers to Support Thematic Teaching

Having created effective traditional learning centers in our classrooms, we thought that the next sensible step was to use this physical environment to support all areas of the children's learning. As we changed center materials, we began to incorporate things that supported the topic of our thematic unit. In an effort to further integrate the curriculum, we added materials to some centers and totally rearranged other centers, depending on the topic. In this way, children continued to explore concepts related to the thematic unit during center time, whether the unit lasted one week or several weeks. As we made these changes in our classrooms, we continued to keep families informed about what we were doing in our classrooms and why we had made those decisions. We started by thinking about materials that might help children explore different thematic units.

Teachers need to identify content that intrigues children and arouses in them a need and desire to figure something out.

— Rheta DeVries and Lawrence Kohlberg, *Constructivist Early Education: Overview and Comparison with Other Programs*, 1990

Time Frame for Thematic Units

The thematic unit of crustaceans inspired by the hermit crabs lasted for two weeks. The children's center time was approximately one hour each day. They still engaged in morning routines, in writing workshop, in math exploration, and in outdoor play. Not all children chose to explore hermit crabs during every center time. Some children continued to choose familiar center materials, such as block building, dramatic play, and math

games. However, before the thematic unit was over, all children had had a chance to work in more than one of the centers containing a focus on the crabs.

It is difficult to determine how long a thematic unit will take. Sometimes the unit topic just doesn't capture children's attention. In such a case, we decide to close the unit after a week. At other times, the topic engages the entire class and the original thematic unit seems to expand.

In one of our classes, a thematic unit about planting seeds was initially planned to last a week or two, depending on the children's interest. The original plans of planting a variety of seeds and watching them grow expanded into researching different kinds of gardens and planting and caring for both a vegetable garden and a butterfly-attracting garden. That one-week unit expanded into more than a month of focused study and many more weeks of caring for our gardens. If children are engrossed in a topic, the thematic unit can extend as long as the interest lasts.

Using Center Materials to Support Thematic Units

Fourteen different thematic units follow:

- | | |
|---------------------------|--------------------|
| ⊗ Art Museum | ⊗ Dinosaurs |
| ⊗ Babies | ⊗ Growing Things |
| ⊗ Bread | ⊗ Insects |
| ⊗ Camping | ⊗ Newspapers |
| ⊗ Construction | ⊗ Restaurants |
| ⊗ Cowboys and Cowgirls | ⊗ Rhythms/Patterns |
| ⊗ A Cultural Study: Japan | ⊗ Seashore |

For each thematic unit, we offer a brief rationale explaining why the topic is appropriate for young children and describe some of the learning that will occur. We describe new centers to support each thematic unit and specify materials to add to the traditional learning centers discussed in Part I. We list ten vocabulary words to incorporate into discussions with children as they work in learning centers. We suggest a culminating activity for the thematic unit and list six books to support the unit.

The final step in planning for thematic learning, which should actually be ongoing throughout the teaching and learning activities, is to evaluate the theme and what children have learned.

— Michael L. Henniger, *Teaching Young Children, An Introduction*, 1999

Art Museum

Background

Young children are usually very creative and enjoy experimenting with a wide variety of art materials. They love creating artwork whether it is representational or a colorful product of their exploration. Sometimes the visual arts are not displayed in early childhood classrooms. Children take their artwork home on a daily basis, and their work is rarely celebrated in the classroom. A specific theme on art museums allows children to see how adults value works of art by displaying them in museums, and introduces them to particular master artists. Creating their own art museum encourages children to explore different art media, create multiple pieces, and understand that their own artwork is valued.



As children write label copy for their artwork and compile an exhibit brochure, they will explore different types of writing. They can increase their science skills of prediction and observation as they mix paints to create different colors and hues. As they experiment with different media, they will learn to control a variety of tools and use different materials to express their feelings and demonstrate what they have learned. As they think about creating different pieces of artwork, they will learn to make plans and implement them.

TIP

Center Management

Young children often want all of their artwork displayed, so create two mattes for each child and help them understand that they must choose two of their favorite paintings or drawings to hang in the museum.

Creating New Centers

Art Museum

Other centers may have to be temporarily reduced in size or removed to allow room to create a museum within the classroom. A large amount of wall space for hanging artwork would be preferable, but if wall space is limited, you can paint large cardboard boxes and use them to display drawings and paintings. A table or two with different-sized blocks can display child-created sculpture.

Turning the Art Center into an Art Studio

The existing art center can easily be transformed into an art studio. For this theme, you may need to reorganize and expand the art center by borrowing an additional easel from another classroom and by adding a table or two for work space. A wide variety of art materials and tools

TIP

Storage/Organization

Early in the school year, limited choices of art media should be offered to children. As children become accustomed to art-center routines, offer them more choices. Above all, art materials must be well-organized and labeled.

should be available to children during this theme (see “Suggested Art Center Materials,” page 25), and special attention given to the organization of these materials.

Enhancing Traditional Centers

Block Center

You may need to remove this center temporarily to make room for the art studio and art museum. Otherwise, unit blocks and their accessories could be removed temporarily and block printing could be added to this center.



TIP

Center Set-up

You can purchase art journals/magazines and coffee-table art books for very reasonable prices at used book stores.

Dramatic-Play Center

Again, this center may need to be removed to make room for the new centers. You could also change the center by adding props to make it appear like the home of an artist. Hang prints of masterpiece artwork, and display art journals and magazines. Large coffee-table art books could replace the typical selection of books in this center, and biographies of artists written for children could be incorporated into the center. For more authenticity, include an artist's smock, beret, and palette.



Listening Center

Each day, place a different type of music—lullabies, sonatas, symphonies, marches, music from other cultures—on a tape recorder and encourage children to create drawings inspired by the tempo and rhythm of the music.

TIP

Center Set-up

Choose music and books that were created in or for the same time period:

- the jazz of Charlie Parker and *Charlie Parker Played Be-Bop* by Chris Raschka (Orchard Books, 1997) or *Li'l Sis and Uncle Willie* by Gwen Everett (Hyperion Books, 1994)
- traditional Japanese instrumental music and the books of Allen Say
- mariachi music and *The Tortilla Factory* by Gary Paulsen (Voyager Picture Book, 1998)

Reading Center

Provide a collection of books illustrated by one artist, such as Eric Carle or Ezra Jack Keats, and a variety of blank books. After discussing



the medium used by that illustrator and providing those materials in the writing center, encourage children to write stories and create illustrations in the manner of that illustrator.

Sand Center

Remove the sand normally available in this center. Replace with containers of colored sand and a collection of baby-food jars. Demonstrate how carefully colored-sand creations must be done. Allow children to create as many colored-sand bottles as they wish.

Science Center

On a nature walk, have children collect items and take them back to the classroom. Ask the children to sort the leaves, twigs, insect nests, seeds, and others into individual baskets. Then, provide large pieces of brown paper or cardboard and glue so children can create nature collages.

Writing Center

Using photographs of museum label copy as models, children can create their own label copy to describe each piece of art that will be displayed in the museum. Brochures from an art museum or art gallery can serve as models for students to create their own exhibit brochure. Encourage children to describe pieces of artwork, write biographies of the artists, and compile all these into a brochure to distribute to visitors to the class art museum.

Vocabulary

medium
oil paintings
pastels
sculpture
prints
collage
texture
shape
line
illustrators

Culminating Activity

Invite families or other classes in the school to a museum-opening event. Children could create invitations to send to the appropriate people. For a few hours, the children would become docents for the art exhibit they created.

Extending the Theme

Not all museums display art. If the children seem to enjoy presenting their creations to outsiders, create other kinds of exhibits based on topics the class has studied. At a science-oriented museum, children could create exhibits about rocks and fossils, reptiles, bats, insects, or any other topics that interest them.



Books That Support the Theme

Anna's Art Adventure by Bjorn Sortland (Lerner Publishing Group, 1999)

Anna goes to the art museum with her uncle, who works there. As he is working, she slips away to find the museum's bathroom. Along the way, she meets famous artists and, in the fantasy part of the book, becomes part of their paintings.

Art Dog by Thatcher Hurd (HarperCollins, 1996)

In a dog world, Art Dog works at the Dogopolis Museum of Art guarding the artwork of artists such as Vincent Van Dog and Pablo Poodle. When the Mona Woofa is stolen, Art Dog captures the thieves.

The Art Lesson by Tomie de Paola (Putnam Publishing Group, 1997)

In this autobiographical story, young Tommy wants to grow up to be an artist. He is anxious to start school so that he can take art lessons. He is very disappointed when he finds out that school art lessons do not allow creativity.

Bonjour, Mr. Satie by Tomie de Paola (Putnam Publishing Group, 1991)

Mr. Satie, a cat who lived in the 1920s, goes to Gertrude's salon and meets two painters, Pablo and Henri. This book is a farce with characters based on Gertrude Stein, Pablo Picasso, and Henri Matisse.

Eggs Mark the Spot by Mary Jane Auch (Holiday House, 1996)

Pauline, the hen, has a special talent for laying eggs with the image of what she sees. As a visitor to an art museum, she produces several eggs with museum paintings. Then, when a painting is stolen, her talent helps solve the crime.

The Gentleman and the Kitchen Maid by Diane Stanley (Puffin, 1997)

Two portraits hang across from each other in one gallery of an art museum. The subjects fall in love with each other, but are trapped in their own worlds. A young artist brings them together.

THEME 2
.....

Babies

Background

Most young children are attracted to children younger than themselves. There is generally a sense of "care-taking" when 5- and 6-year-olds are around infants and toddlers. They like to hold them, coo to them, and make faces in an attempt to get a response from the baby.



Five- and 6-year-olds are also inclined to talk about “when they were little.” They tell stories about when “I couldn’t even walk or talk.” They love to look at photographs of themselves when they were younger and listen to adults tell stories about things they did “when they were little.”

It seems natural to build on this interest and to help young children revisit this time in their own lives. They can think about how they differ from infants and toddlers and how they can help care for very young children.

The theme of babies allows children to explore real-life experiences as they read about babies, play with infant toys, think about the care infants and toddlers require, and pretend to care for younger children. Children will increase their knowledge about reading and writing as they create baby books and write about themselves when they were young. They will expand the science skill of observation as they create baby food. As children sort sizes of toys that are appropriate and inappropriate for very young children, they will understand concepts of relative size. As they work in all the learning centers focused on babies, children will learn more about the needs, interests, and development of infants and toddlers, and they will develop a greater sense of responsibility for younger children.

Creating a New Center

Turning the Dramatic-Play Center into a Baby’s Home

The dramatic-play center can be changed from generic home theme to the “home of a baby” theme. Just add a few large props, such as a rocking chair, a bassinet or small crib, a high chair, a baby bathtub, a changing table with a stainless-steel mirror placed nearby, and a car seat. You might have to move other centers to allow room for this fur-



niture. Smaller props, such as infant-sized dolls, baby clothes and blankets, cloth diapers, diaper bags, bottles, rattles, squeeze toys, soft dolls, small plush animals, grasping toys, clutch balls, and crib gyms, add authenticity to this center.

TIP

Center Set-up

Hang framed photographs of an infant and prints that are appropriate for a baby’s room.

TIP

Center Management

To help young children understand more about meeting the needs of infants, place a flat container on the floor to hold safe toys for easy accessibility to crawling infants.

Enhancing Traditional Centers

Art Center

For a couple of days, offer children the choice of black paint on white paper or white paint on black paper. Display samples of the black-and-white geometric shapes often sold for stimulating babies, and encourage children to make high-contrast creations that attract the attention of infants. On other days, offer children only the primary colors of red, blue, and yellow, and ask them to create bold-colored simple patterns that infants also appear to like.



Block Center

Replace the unit blocks with smaller, lighter blocks made of cloth or plastic that are used for older infants and young toddlers. Challenge students to build structures with these blocks. The different characteristics of infant/toddler blocks will cause children to rethink their assumptions about balance, gravity, and creation.

Balls are also generally recommended for infants and toddlers. Near the block center, place a collection of clutch balls and texture balls, as well as chime balls, flutter balls, and action balls. For infants and toddlers, these materials allow them the opportunity to explore and manipulate, and produce interesting effects. Encourage students to explore these materials, and see what they discover.

TIP

Storage/Organization

Use a labeled container for each kind of ball—clutch balls, texture balls, chime balls, flutter balls, and action balls—so children can sort as they clean up.

Listening Center

Gather a collection of audiocassettes produced for infants: soft, gentle rhythms that simulate the mother's heartbeat, as well as music and songs that are soothing, simple, and repetitive. Talk to students about how they feel when they listen to the soft music meant for younger children.

TIP

Center Set-up

You could add one of those stuffed animals that simulate a mother's heartbeat for newborns.

Math Center

Locate several of the choking-testers and a wide selection of toys. Ask children to use the tester to sort the toys into those that are appropriate for young children and those that are too small and could cause choking in infants and toddlers.



Reading Center

Provide a collection of light cloth or heavy plastic books with easy-to-turn, hard-to-tear pages in nontoxic, bright colors; tactile or touch-me books, and cardboard books with simple stories; nursery rhymes, and very simple ABC and number books.

Science Center

Collect a variety of kitchen tools, such as forks, blunt knives, potato mashers, and baby-food grinders. Each day, provide a different food item that children can “turn into” baby food. Vegetables, such as peas and carrots, are good choices. Fruits, such as bananas and pears, are also good.

Water Center

Remove the typical water-center table or container and replace with a baby bathtub or two. Gather items for bathing infants, such as washcloths, hooded towels, empty containers of baby shampoo, soaps and lotions, and changes of diapers and clothes. Find waterproof dolls and allow children to practice bathing their babies.

Writing Center

With blank books and some baby books as models, children could create baby books for their own “pretend children.” With the cooperation of families, collect photographs of each student as an infant and toddler. Post them near the writing center and encourage students to write/draw stories about themselves “when they were little.”

TIP

Storage/Organization

To keep children’s writing organized and accessible, buy a plastic crate and label drop files with their names. Even young children can file their own work in drop files.

Culminating Activity

Invite a group of mothers and their infants and toddlers for a morning visit. Students could observe the babies and draw pictures of the younger children’s activities. Encourage children to ask the mothers questions that they had brainstormed during group meetings. Extend the morning

activity into a celebration of the students’ infancy themselves. In the afternoon—or on a separate day—invite parents or grandparents to the classroom to tell stories about their child as a baby. For families who could not attend the celebration, ask them to send letters to the class for reading aloud.



Vocabulary

infant
toddler
crib
bassinet
lullabies
grasping
cooing
babbling
exploration
safety

Extending the Theme

If children seem to enjoy this trip back to their baby days, spend another week on the study of preschoolers. Replace center materials with play materials that are appropriate for preschoolers. Contrast the needs and interests of preschoolers with those of infants and toddlers, and those of kindergartners or first graders. This study of younger children could end with students writing their own autobiographies.

Books That Support the Theme

101 Things to Do with a Baby by Jan Ormerod (William Morrow, 1984)

Starting with saying “good morning” and ending with saying “good night,” this book goes through 101 things that a big sister, a mom, a dad, and a grandmother do with a new baby.

Arthur’s Baby by Marc Brown (Little, Brown & Company, 1998)

Arthur discovers that his mother is expecting a new baby. All through the pregnancy, he worries about the changes the baby will cause. After the baby actually arrives, Arthur comes to the rescue to stop the baby from crying.

I'm a Big Brother by Joanna Cole (William Morrow, 1997)

A big brother finds that helping and playing with the new baby is actually fun.

I'm a Big Sister by Joanna Cole (William Morrow, 1997)

A big sister finds that helping and playing with the new baby is actually fun.

Oonga Boonga by Frieda Wishinsky (Dutton, 1999)

Family members and neighbors all try to coax Baby Louise into smiles, but still she cries. Only when big brother Daniel says his phrase, “Oonga, boonga” does the baby stop crying.

When I Was Little by Jamie Lee Curtis (HarperCollins, 1999)

This story is about growing up—from the perspective of a four-year-old.

THEME 3

Bread

Background

Breads are an integral part of most cultures and ethnic groups. Bread making is often the center of a culture’s celebrations or holiday traditions. This theme allows children to explore the different celebrations associated with bread in their family while learning about classmates’ family traditions.

Children learn measurement skills as they measure and pour out ingredients. Their math vocabulary expands as children compare the length, height, and width of different loaves of bread. In science, children can observe changes as they combine dry ingredients with liquids to create a new mixture. Their reading and writing skills will be extended as children read recipes and cooking magazines, write grocery lists and recipes, and craft signs and price lists for the bakery.

TIP

Center Management

Write the recipes used in this theme on chart tablet paper. Make it available as a reference for the children throughout the theme. Duplicate the recipes to send home to the families.

Creating a New Center

Turning the Dramatic-Play Center into a Bakery

When creating a bakery provide baking tools, such as different styles of rolling pins, pastry cloths, mixing bowls, measuring spoons, spatulas, baking pans, muffin tins, and skillets.

Add baker’s hats, aprons, white



TIP

Center Set-up

A local bakery or grocery store will often donate bakery sacks and possibly aprons or hats. Encourage your families to patronize that business by noting the donation in your family letter.



TIP

Center Set-up

To create the bakery's display cases, cover large cardboard boxes with white butcher paper. Wrap each box as you would a gift box and secure with transparent tape. The children can draw outlines to create drawers, shelves, etc., as needed.

paper sacks, cash register, play money, order pads, and plastic models of various breads (doughnuts, bagels, etc.). Collect empty boxes of flour, cornmeal, masa, Bisquick®, etc., to add to the center.

Enhancing Traditional Centers

Art Center

Add all types of clay to this center. Play dough (see recipe below), Model Magic®, modeling clay, and pottery clay each offer a different tactile experience. Provide trays or shelf space for clay creations to dry. Add paint and small brushes for painting the dried product. Most breads come in different shades of brown. Post a collection of magazine pictures that contain shades and hues of brown on a nearby bulletin board.

HOW TO MAKE PLAY DOUGH

You'll need:

- 2 cups flour
- 1 cup salt
- 2 cups water (add a few drops of food coloring)
- 4 tablespoons cream of tartar
- 2 tablespoons vegetable oil
- medium saucepan
- stove
- resealable plastic bags

To do:

1. Combine the flour, salt, colored water, cream of tartar, and vegetable oil in a medium saucepan.
2. Mix the ingredients over medium heat until the mixture thickens.
3. Remove from heat and knead until it is the desired consistency. Store in resealable plastic bags.

Block Center

The block center can become a factory for making bread. Add delivery trucks and a map of the city. Include heavyweight paper and felt-tip markers for making road signs.

Listening Center

Store the books and audiocassettes in white bakery paper bags during this theme. Write the book's title on the outside of the paper bag.

Math Center

Supply play money and sale forms to support the bakery's play activities. Provide labeled models of shapes (circle, square, rectangle, oval, diamond, etc.) to compare and contrast the different shapes of bread loaves. Add measuring tapes, rulers, and yardsticks, as well as nonstandard measurement tools to determine what kind of bread is the longest, shortest, widest, etc.



Reading Center

Collect recipes for various breads. Copy them from cookbooks or ask the children's families to send in recipes. Photocopy them to make class recipe books. Simple recipes illustrated with photographs or drawings work best. Provide cooking magazines for the children to read. Several recipe books designed for children are also available.



Sand Center

Use models of cup, pint, quart, gallon, and liter to extend children's measurement skills. Encourage children to pour sand into the containers and discover the relationships between the containers. You can add measuring spoons to this center as well.

Science Center

Explore the grains used in baking bread here. Provide specimens or photographs of wheat, rye, oats, and potatoes used in making flour, as well as corn used in making cornmeal and masa. Provide small, flat rocks to grind the corn into meal.

Vocabulary

recipe
ingredients
bagels
tortilla
yeast
flour
wheat
rye
biscuits
muffins

Writing Center

Furnish index cards or recipe cards for writing recipes. Add a recipe box with dividers or an expandable file to hold the finished cards. Stock simple folded-paper blank books for writing recipes. To create these blank books, fold two pieces of paper in half, then staple them together along the left side.

Culminating Activity

Celebrate Bread Day: Ask the families in your class to assist with baking a variety of breads. Divide the class into groups and let a small group of children work with each volunteer. The volunteer assistants can offer children a description of their bread, give background information about it, and then assist the children in making the bread. Depending on the kind of bread, a toaster oven or electric skillet can be used to bake it in the classroom. Take photographs of the different groups as they prepare, serve, and sample the breads. Use the photographs to create a class book about bread. Glue the photographs on card stock, add simple captions, and the children will have a lasting memory of this special day.

Extending the Theme

To underscore how one ingredient is used in different ways, cook potatoes in different ways. For example, bake, fry, mash, and scallop potatoes. Make a potato soup or casserole. Serve the potatoes with and without salt, with cheese, butter, sour cream and chives, or plain. If the children enjoy exploring the different aspects of bread, you might extend this idea with a study of hats. Learning about the different hats worn in different cultures and by various ethnic groups could parallel the study of bread.

Books That Support the Theme

Bread Bread Bread by Ann Morris (Lothrop, Lee & Shepard, 1989)

The full-color photographs add to the exploration of baking, sharing, and eating bread. The simple text is appropriate for young readers.

Bread is for Eating by David Gershator (Henry Holt & Company, 1998)

This book celebrates bread and the people who work to make it. From the farm to the supermarket, the rhythms of this bilingual text introduce readers to different kinds of bread around the world.

Cranberry Thanksgiving by Wende and Harry Devlin (Aladdin Paperbacks, 1990)

Maggie and her grandmother each invite a guest to share in their Thanksgiving Day feast, featuring grandmother's special cranberry bread made from her secret recipe. Adventures resulting from the missing secret recipe delight the reader. The cranberry bread recipe is included in the back of the text.

Everybody Bakes Bread by Norah Dooley (Carolrhoda Books, 1996)

As Carrie visits her neighbors in search of a three-handled rolling pin, she finds the warmth of friendly, international families baking bread. She observes Barbadian coconut bread, chapatis, corn bread, etc. The recipes are included at the end of the text. The illustrations capture the multicultural magic of the neighborhood.

Jalapeño Bagels by Natasha Wing (Atheneum, 1996)

For International Day at school, Pablo wants to bring something that reflects the cultures of both his parents. After surveying the choices at the family bakery, he decides that jalapeño bagels will be the most representative choice.

Loaves of Fun by Beth Harbison (Chicago Review Press, 1997)

This book provides the history of bread and offers two dozen recipes and five activities related to the process of making bread or bread's ingredients.

Camping

Background

Many children who live in urban, or even some suburban, areas have never experienced spending time in nature—outdoors without buildings, streets, lights, or other comforts. The children may not know what it is like to find a chrysalis attached to a twig, cook over an open fire, or listen to crickets chirp. A camping theme will heighten their awareness of the environment and foster an appreciation of nature.

Within this theme children could extend their learning to other subject areas. In language arts, children could compose letters and postcards to friends back home. Computing distances on a map or costs of a meal could become a math lesson. Science studies of nutrition, small woodland animals, insects, weather, and safety blend in here.

Creating a New Center



Turning the Dramatic-Play Center into a Campsite

Remove the home center/dramatic-play center and replace it with a campsite. If a small pop-up-style camping tent is not available, simply tie a rope

between two sturdy chairs to make a tent. Then, fold a flat sheet in half and drape it across the rope, spreading the sides out to form a tent. The tent becomes the focal point of your campsite.

Add sleeping bags, outdoor cooking utensils (Dutch oven, skillet, potholders, etc.), small logs complete with red cellophane fire, binoculars, compasses, flashlights, battery-operated lanterns, child-sized lawn chairs, and a small table. During the course of the unit, children can create trees and bushes to add to the out-of-doors atmosphere. A park ranger station can be created nearby—a simple shelf and chair will suffice for the ranger's office.



TIP

Center Set-up

To make a more durable tent, slice down one edge of a large, square cardboard box (donated refrigerator boxes work well). Trim off the top and bottom of the box and overlap two of the sides, creating a "pup tent" or triangular-shaped box. Securely fasten the sides together. Alternatively, you can make a tepee-style tent with long strips of lumber tied together at one end. Spread out the bottom end of the wooden strips and cover this cone-shaped frame with thin fabric. Secure the wooden strips to prevent the tepee from falling over. Or, simply drape a sheet over a table for an instant tent.

Enhancing Traditional Centers

Art Center

Add plenty of green and brown paper, paint, chalk, etc., so the children can create a backdrop for the campsite. The children can mix blue and



yellow paint to make various shades of green. Add some white and black paint to vary the hue as well. Provide leaves for leaf rubbings, sticks for painting utensils, and tree bark for printmaking. The children can also make lanyards to hold whistles or magnifying glasses by braiding yarn or cord.

TIP

Center Management

Provide a place to store the whistles. Label the lanyard with the child's name and store on hooks on a pegboard. Let the children use the whistles at recess.

Block Center

Depending on the materials provided, the block center can become a canyon, forest, river, mountain, trail, or just the outdoors. Provide photographs of various camping areas (travel or recreational-vehicle magazines are good sources). Add small twigs and blue construction paper for water.

Discuss the necessity of keeping food away from wild animals. Provide materials so children can design an animal-proof food container.



Listening Center

Wee Sing® tapes provide a rich source of campfire songs for sing-alongs and fingerplays. Environmental recordings will add an authentic touch to your campsite. Provide a guitar and folk music.

Math Center

Objects from nature are great for sorting and patterning. Collect small rocks or pebbles, break twigs into small pieces, or gather leaves. At the park ranger station, children can use play money to pay admittance fees. They can select a campsite by looking at a map.

Reading Center

Provide books and magazines about camping, travel, and outdoor life. Boy and Girl Scout handbooks or field guides are appropriate additions, as well as books about woodland animals, habitats (woodlands, mountains, prairies), trails, white-water rafting, and canoes.

TIP

Center Set-up

Store the books and tapes in a backpack during this theme. Add a small blanket for a pallet for the children to sit on while they are in this center.

TIP

Center Set-up

Provide child-sized folding chairs for the children to sit in while reading. Group the chairs around a pretend campfire—logs and red cellophane paper arranged together.

Sand Center

The sand center could become a model of a campground. Show the children simple maps of a campsite and encourage them to duplicate the campsite in the sand center. Provide small twigs and fabric for making tents. Additional twigs and leaves could become trees. Using the sand center's tools (rakes, etc.), the children can smooth trails, build mountains, and more. Provide small compasses for the children to use. Small models of forest animals (bears, deer, raccoons, etc.) could be included here. Provide books about animals' tracks and encourage children to duplicate the tracks.

Science Center

Provide books about stars and constellations. Equip the center with books about insects, and small models or specimens of insects. Provide magnifying glasses for close examination.

Writing Center

Picture postcards from campgrounds inspire young writers in this center. State parks or campsites often distribute these as advertising materials. Provide card stock cut into postcard-sized pieces. Children can add their own drawing to the front, write the message on the back, and address the card to a classmate or family member. Encourage children to write songs, poems, and stories to share around the campfire. They could also create informational signs to place around the campsite here.

Vocabulary

camping
lanyard
compass
campsite/
campground
trail
woodland
forest
prairie
canteen
trail

TIP

Center Set-up

Attach glow-in-the-dark stars to the ceiling in the patterns of easily recognizable constellations. These stars can be purchased from most science or school-supply catalogs.

Culminating Activity

Replace the class's usual cafeteria lunchtime with an outdoor cookout. The children can prepare the food. Menu possibilities include foods that can be grilled on a hibachi, such as hot dogs, mixed vegetables wrapped in foil, etc. Enlist parent volunteers to help supervise the cooking. Sit around the fire and sing camp songs. Roast marshmallows on sticks over the hibachi.

Extending the Theme

Make trail mix. Mix together equal parts of peanuts, small pretzels, bagel chips, bite-sized cereal, and chocolate chips in a large bowl. Scoop out individual servings into resealable plastic bags. The children can then take the trail mix to the campsite and enjoy their snack.

Books That Support the Theme

Curious George Goes Camping by Margret and H. A. Rey (Houghton Mifflin, 1999)

This book continues the pattern familiar to the *Curious George* series. George and his friend with the yellow hat go camping. George's curiosity leads to several adventures, and he becomes a hero after saving the campground from a possible fire.

The Giants Go Camping by Jane Yolen (Houghton Mifflin, 1979)

Jane Yolen's engaging words and Tomie dePaola's lively illustrations join to make an enjoyable book about camping. The giants' escapades lead them to some unlikely adventures, as their personal characteristics guide them.

The Lost Lake by Allen Say (Houghton Mifflin, 1989)

This poignant story of how a boy and his father become friends during a camping trip to the mountains gives children insights into family relationships and an appreciation of our natural environment.

Make Friends, Zachary! by Muriel Blaustein (HarperCollins, 1990)

Zachary, the tiger cub, gets into trouble when he plays with other children until his cousin Alfie joins him on a family camping trip. Zachary finds that having a friend is not so bad as the cousins solve their problems together.

National Audubon Society First Field Guide: Trees by Brian Cassie (Scholastic, 1999)

This reference book can serve as an introduction to various kinds of trees, or as a guide for identifying trees. The photographs and organization style make it understandable to young readers.

Starry Night by David Spohn (Lothrop, Lee & Shepard, 1992)

In this book, two brothers and their dad share a night of peaceful camping in the woods behind their house. The book portrays the simple pleasures of camping: collecting firewood, building a fire, and observing the stars.

THEME 5

Construction

Background

When students construct, they build, frame, or devise something. They work systematically to produce an idea or perception resulting from the orderly arrangement of facts, impressions, or materials. This hands-on experience gives students the chance to witness the creation of something from its inception to its completion.

Given opportunities to create, students face the tasks with energy, ingenuity, and resourcefulness. They think collaboratively with friends. They become inventive, determined, curious, and confident. The process also gives students a model from which they can explain their thinking.

This theme offers opportunities for students to extend their academic skills. Reading strategies



are enhanced as students read books and learn vocabulary words about building. Mathematical skills are expanded as they use measurement to plan the construction. As the students study blueprints and consider the feasibility of their plan, they work through the scientific process.

Creating a New Center

Turning the Dramatic-Play Center into a Workshop

During this theme, the dramatic-play center's furniture may have to be removed to allow space for the workshop. Create a workshop area by placing a child-sized workbench and shelves in the area. If these are not available, a table can house the tools. Add child-sized tools, such as a hammer, screwdriver, wrench, and others. Provide carpenter's aprons, hard hats, safety glasses, and gloves. Stock the workshop with wood cut into different shapes, nails, screws, nuts and bolts, sandpaper, blueprints, and a tape measure.



TIP

Center Management

Instruction on the proper use of tools must be taught before students use the materials in construction projects. Safety issues must be stressed. Invite a carpenter or builder to address the class while wearing an apron, tool belt, hard hat, and safety glasses. This will create a stronger impression about the importance of safety.

Enhancing Traditional Centers

Art Center

Encourage construction of modern sculpture by adding aluminum cans, small boxes, straws, craft sticks, fabric, and modeling clay. Young artists may also enjoy creating collages and shape art from appropriate materials. Display pictures of modern sculptures and artwork to serve as models.

Block Center

Add blueprints, Lincoln Logs®, and Legos® to the existing wooden blocks. Display pictures of houses, buildings, bridges, and other structures. Challenge students to construct something that will fit into one of many categories: small, tall, wide, narrow, flat.

Listening Center

Add books-on-tape that focus on construction themes. Make a tape of construction sounds—a saw, a hammer, a sander, a bulldozer, a dump truck—and challenge the children to identify the sounds.

TIP

Storage/Organization

Most classrooms are not large enough to accommodate many block structures. Have students pose with a ruler or yardstick for a Polaroid® picture to document the length, width, height, etc., of the structure. The photographs can be categorized and displayed.



Math Center

Place geoblocks, interlocking cubes, and pattern blocks on a table to support the construction theme. Provide a space for students to display their work so that others may be inspired to create a new design or challenged to duplicate an existing design.

Reading Center

Add a selection of fiction and nonfiction books on tools, machines, types of construction, and ways things are constructed. Students may also enjoy looking at blueprints.

Sand Center

Tools, such as castle molds, sand mills, sifters, trowels, measuring cups, funnels, small rakes, and shovels, encourage construction. Toy bulldozers, dump trucks, and other machinery invite students to build roads, houses, and other creative ventures.

Science Center

Add toothpicks, craft sticks, drinking straws, string, miniature marshmallows, gum drops, and sugar cubes to the center. These unconventional building materials will encourage students to experiment with design.

Writing Center

Provide index cards, poster board, and sentence strips to make labels for the items constructed in each center. Posters for displays will be necessary for the culminating activity. Encourage children to write about their creations to include in the display.

Culminating Activity

Create a display of the children's construction achievements. Group several tables together to serve as a display area. Have the children label each product with the name of the piece, the builder, and other pertinent information. Create posters for the various displays explaining the task. Make invitations and invite other classes, administrators, and families to visit the display. This activity works well before open house, a PTA meeting, or parent-teacher conferences.

Students may write a script or brochure to accompany the display and other students may act as docents for the visitors.

Vocabulary

construction
hammer
screwdriver
wrench
architect
blueprint
nut and bolt
bulldozer
mold
trowel



TIP

Center Set-up

Consider creating a "Take-Apart" center. Just as children acquire knowledge by constructing things, they learn how things work by taking them apart. Solicit donations of old typewriters, telephones, clocks, toasters, and other gadgets. Provide hammers, screwdrivers, wrenches, and any other tools necessary to take the object apart. Be sure to remove the electric cord before placing an appliance in the center. Add a tray to hold the pieces. Later, when the object has been disassembled, the children can use the pieces to invent something new.

Extending the Theme

Investigate the possibility of displaying the children's work in a part of the school where their achievements can remain on display for a longer period of time. This construction museum could include information about architecture and tools. There could also be an interactive section where visitors could perform some of the tasks.

Books That Support the Theme

Building a House by Byron Barton (William Morrow, 1981)

Using simple words and pictures, Byron Barton shows children a house's construction—from the selection of the site to moving in.

Construction Site Sticker Picture by Steven James Petruccio (Dover, 1996)

Children view detailed pictures of construction sites with 52 reusable peel-and-apply stickers.

Cranes, Dump Trucks, Bulldozers, and Other Building Machines by Terry Jennings
(Kingfisher Books, 1993)

This easy-to-read text has detailed color illustrations, many of them cut away to show interior views. "Focus On" boxes highlight and explain important scientific principles, and "Test It Out!" experiments and activities let readers discover how things really work.

Dig, Drill, Dump, Fill by Tana Hoban (William Morrow, 1975)

Through photographs, Tana Hoban introduces heavy construction machines: earth movers, mixers, diggers, and others.

Tool Book by Gail Gibbons (Holiday House, 1988)

This book depicts a number of different tools used in building and the kinds of work they are used for.

T H E M E 6
.....

Cowboys and Cowgirls

Background

This theme allows children to explore the historical aspects of westward expansion while pretending to be cowboys and cowgirls. While most children will be familiar with some facets of western life from television, you need to provide background knowledge as the children begin their dramatic play.

Children may not know, for instance, about the lifestyle of a cowboy, from sleeping on the ground with a bedroll to eating from a chuck wagon. They may not realize how important finding water was during the trail drives or understand the long distances that it took to get the cattle to market. Also, children will enjoy learning how western clothing is styled for a reason. For example, long sleeves prevent scratches when riding through brush; a large-brimmed hat protects from the

sun and serves as an emergency drinking cup; a kerchief covers the nose and mouth when riding in dusty areas, and more.

In the math center, children will sort figures and make patterns using these figures. The art center offers opportunities to explore a variety of media and the reading center's materials will encourage reading-comprehension skills as children compare and contrast the western lifestyle.

Creating a New Center

Turning the Dramatic-Play Center into a Covered Wagon

Rearrange the dramatic-play center into a covered wagon to serve as the chuck wagon for trail rides. Add brown construction paper wheels to each side of an easel and drape white paper over top. Place two small chairs at the open end and attach rope for the reins. Add logs and red cellophane paper for the fire. Furnish skillets, Dutch ovens, spoons, kerchiefs, aprons, canteens, and coffee pots for cooking.

Place a saddle on a sawhorse or over two chairs to make an imaginary horse. Provide stick horses (or have children make them in the art center) to ride. Add chaps, western-style shirts, kerchiefs, boots, ropes, gloves, canteens, and hats for dress-up materials.

Provide child-sized bedrolls for bedding down for the night after a hard day on the trail. These can be made by tightly rolling blankets and wrapping them in oilcloth (available from tent and awning sources). Secure the bedroll with a tightly cinched belt.

Obtain a bale of hay from a local source. Attach real steer horns, if available, for roping practice on playground. If steer horns are not available, a simple wooden calf's head made from a short length of 2-by-4 lumber nailed to another piece of wood can be attached to the hay bale. Children also enjoy playing horseshoes on the playground.



TIP

Storage/Organization

Store the theme's materials in a large container or "chuck box," as the early cowboys called their storage.

Enhancing Traditional Centers

Art Center

Post photographs of trail rides in the art center. Have paint in shades of browns and greens and large pieces of butcher paper available in the art center for painting backgrounds for the trail rides. Prints of paintings by Charles Russell illustrate western life. These, too, can be posted in the art

TIP

Center Set-up

Often, local home centers or discount stores are willing to donate yardsticks for classroom projects. Have children write a letter to request the donation and follow up with your phone call.



center. Have available yardsticks or wooden dowels, paper, yarn, masking tape, glue, and scissors to make stick horses. The children can make kerchiefs from fabric scraps cut into about 18-inch squares. Use block printing or fabric crayons to decorate the kerchiefs.

Block Center

Be sure to have small models of cows and horses available for placing in corrals or pens. Add pictures of rodeos, such as the arena, chutes, gates, and seating. These pictures will inspire young architects.

Listening Center

Children can use puppets to dramatize stories recorded on tape. Provide puppets that relate to the theme or invite children to make them in the art center. Add tapes of ballads used to lull the cattle at night and songs sung by the cowhands around the campfire. Harmonicas are a nice addition.



Math Center

Add small cowboy figures to your manipulatives for counting, sorting, and patterning. These are readily available in toy stores.

Reading Center

Add a selection of fiction books as well as some expository texts about rodeos to the reading center. This offers a good opportunity to showcase the

lifestyle of modern rodeo cowboys and cowgirls, who travel from rodeo to rodeo in cars or pickup trucks or by airplane.

TIP
Center Management
Use the bedrolls from the dramatic-play center as pillows in the reading center.



Sand Center

Cowboys' observations taught them much about their environment. Add pictures of animal tracks and small tools for creating different tracks. Spoons can be used to duplicate animal footprints, small pieces of rope can create a snake's sidwinding movements, and horseshoes can represent a horse's hoof prints.

Science Center

Add specimens of desert animals from local science museums or photographs of these animals. Provide posters to illustrate plains and desert areas. Children can observe cactus plants to determine their water requirements and growing habits. Compare the cactus' characteristics with other plants.

Vocabulary

steer
arena
competition
covered wagon
chuck wagon
reins
chaps
kerchiefs
ranch
branding



Writing Center

When cowboys were out on the trail, they often didn't get letters for months on end. Establish a letter-writing area to include some sort of mailbox for posting letters. Another area of the writing center can become the telegraph office. Provide half-sized sheets of paper for writing a short message. Remember: The telegraph office's patrons had to pay by the word!

Culminating Activity

Arrange the logs and cellophane "fire" in the center of a large open space. Park the chuck wagon (from the dramatic-play center) nearby. Gather the children around to sing campfire songs. Cook pork and beans in an electric skillet and bake biscuits or cornbread in a toaster oven.

Extending the Theme

Children might plan a "bike rodeo" in which they would compete in skill events as cowboys historically did. Since rodeos originated from working cowboys bragging about their expertise to other cowboys, the children might enjoy offering and accepting challenges about bicycle skills and abilities as they plan for the "bike rodeo." While all children may not have attended a rodeo, most of them will be familiar enough from watching TV. Take a field trip to a rodeo or watch a video of rodeo events.

Avoid stereotyping cowboys or portraying western life as only for men. Discuss the role of women and contributions of people from various ethnic groups.

Books That Support the Theme

Armadillo Rodeo by Jan Brett (Putnam, 1995)

A loosely knit story of how a near-sighted, adventure-seeking armadillo joins cowboys at a rodeo. Brett's illustrations and borders offer a richness to the text.

The Cowboy and the Black-Eyed Pea by Tony Johnston (Putnam, 1992)

In this adaptation of *The Princess and the Pea*, the wealthy daughter of a Texas rancher devises a plan to find a real cowboy husband who loves her for herself, not just for her longhorn herd.

Cowboy Country by Ann Herbert Scott (Clarion Books, 1993)

An "old buckaroo" rancher explains to a young visitor about life on a ranch. He tells about how he became a cowboy, what work was like in the past, and how his life has changed.

Cowboys of the Wild West by Russell Freedman (Clarion Books, 1990)

Actual photographs and informative text portray the life of a cowboy in the early days of the west. Chapters explain cow herding, cowboy's clothing, trail riding, ranch life, and old-time cowboys.

Home on the Range: Cowboy Poetry by Paul B. Janeczko (Dial Books, 1997)

The 19 poems in this book celebrate cowboy life in rhythm and rhyme. The extra bonus of beautiful pencil and oil drawings on colored paper adds to the book.

White Dynamite and Curly Kid by Bill Martin Jr. and John Archambault (Henry Holt, 1989)

This is a colorful, poetic look at the life of a bull rider and his child at a rodeo. The excitement builds to the end of the ride as the child and father narrate the ride. The ending's twist adds just the right touch.

A Cultural Study: Japan

Background

In building a classroom community, the teacher guides the students in learning to respect others and get along with everyone. Fostering multicultural understandings provides the opportunity for students to develop an appreciation of themselves and their own heritage and a respect for others and their cultures. The children's families are excellent resources for this theme. Send home a family letter requesting cultural tokens, such as flags, native dress, books and magazines, pictures, music, children's games, and more.

While the children learn that our differences make each of us "special," they also learn academic skills. Reading strategies are enhanced as children read books that provide an aesthetic awareness of Japan, as well as knowledge of traditions and customs. Writing skills continue to develop as the students keep notebooks, write postcards, and create labels for articles they bring from home. Children use cultural items to sort, classify, and count to enhance their mathematical skills. They are also introduced to geography skills.

Creating a New Center

Turning the Dramatic-Play Center into a Japanese Teahouse

Shorten the legs of the table and replace the chairs with pillows. Hang



kimonos for students to wear (see "Art Center," p. 69) and provide a box to hold the children's shoes as they enter the Japanese teahouse.

Replace plastic forks and knives with chopsticks. Add lanterns, pictures, and other cultural icons to make the setting realistic.

TIP

Center Set-up

A folding-screen room divider is appropriate for the teahouse. Children can decorate the screen with Japanese-type paintings. If a folding screen is not available, you can construct one out of a large cardboard box.

Enhancing Traditional Centers

Art Center

Have children bring one solid-colored, short-sleeved shirt and a long piece of fabric to be used as an *obi* from home. Display pictures of Japanese costumes that show the painted designs on the back, sleeves, and sash. Show how to turn the collar under and provide designs for children to

trace or copy freestyle. Or, encourage children to create their own designs to paint on their shirt.

Add bright-colored thin paper and drawing paper. Hang samples of Japanese art and poster boards with detailed descriptions of paper-folding projects, lanterns, and kites.

TIP**Center Management**

It is beneficial to provide a space that allows structures to remain up for extended periods of time. Children could spend time studying the buildings, and comparing and contrasting different structures. By taking photographs of each structure and posting them in the block center, the children would see the wide variety of buildings.

TIP**Storage/Organization**

Clear plastic boxes with lids are good for storing small items. Label them with the name of the country and a list of contents. They require a minimum amount of space since they are stackable.

Block Center

Display a variety of pictures of houses found in Japan. Encourage children to copy the various designs and create their own structures.

Add pictures of harbors, ships, and boats to encourage students to replicate the Japanese coastline.

Listening Center

Add music associated with Japan and language tapes that teach the children to say hello, good-bye, please, thank you, and more in Japanese. Parents may be helpful in making these tapes.

Math Center

Place a variety of cultural items, such as chopsticks and pieces of bamboo, and/or pictures of students wearing native costumes, different houses found in Japan, etc. Children could sort items, use them to create patterns, count them and determine which group has the most, least, etc.

Reading Center

Add a selection of fiction and nonfiction books about Japan that contains maps and colorful photographs. Magazines often contain ads for places, foods, cars, etc., that are familiar to students.



Sand Center

Post pictures of volcanoes and provide books on volcanoes. Add measuring cups, molds, and tubes to encourage construction.

Science Center

Place chopsticks for each child in the center. Add fruit and vegetables cut into bite-sized pieces. Other small objects, such as models of fish, can also be added. Post pictures of Japanese people using chopsticks to encourage children to try and pick up the different objects with the chopsticks.

Vocabulary

multicultural

costume

kimono

obi

custom

tradition

origami

symbol writing

fortune cookie

chopsticks

Writing Center

Post samples of Japanese symbol writing. Add pens, ink, paintbrushes, paint, and paper to encourage experimentation. The addition of paper and blank books will encourage students to write stories, informational reports, letters, and more.



Culminating Activity

Plan a Japanese tea ceremony. Have the students work in committees to prepare for the ceremony.

There could be a table-setting committee, a floor-pillow committee, a music-selection committee, flower arrangers, tea and cookie servers, etc.

Have students dress in their kimonos, enter the teahouse after removing their shoes and take a seat on the floor pillows. The serving committee would then serve the tea, almond cookies, fruit salad, and fortune cookies. Music will help enhance the mood.

Extending the Theme

Take the notion of the Japanese teahouse and plan for a multicultural tea party. Provide tea for the class. Add different cookies or breads from around the world. Families may help with the food.

The children would try a small piece of each food and drink the tea while listening to a variety of music to celebrate our coming together.

Books That Support the Theme

Crow Boy by Taro Yashima (Viking, 1976)

A shy mountain boy in Japan leaves his home at dawn to go to the village school and returns home at sunset.

Grandfather's Journey by Allen Say (Houghton Mifflin, 1993)

This is the story of a Japanese man's immigration to the United States.

Japan: The Land by Bobbie Kalman (Crabtree, 1989)

This book introduces students to the geography and physical aspects of Japan.

Japan: The People by Bobbie Kalman (Crabtree, 1989)

The students are introduced to the lives of Japanese people seen at home, work, school, and play.

Japanese Children's Day and the Obon Festival by Dianne MacMillan (Enslow Publishers, 1997)

The author describes the history, customs, traditions, and celebrations of Japanese Children's Day and the Obon Festival.

Dinosaurs

Background

Many young children adore dinosaurs. Some of this passion is quite understandable. Dinosaurs are big—really BIG—and many of these creatures look quite strange. Children think they all have cool names. Most importantly, dinosaurs are no longer alive, so children don't have to worry about dinosaurs "getting them." Still, some dinosaurs were ferocious and others had tremendous defenses—horns on their heads, clubs on their tails, or teeth the size of bananas. Children imagine how they chased, fought, and ate each other. Yet some dinosaurs were smaller than modern-day chickens, and children dream of having these dinosaurs as pets.

While children do not truly understand that millions of years have passed since dinosaurs roamed the earth, they can still learn quite a bit during a theme about dinosaurs. They become better readers as they try to make sense of the words that describe different dinosaurs. They will pay very close attention as they copy names of dinosaurs. This is a great context to help children increase their understanding of letter recognition or syllables. As children work in the math center, they will learn more about size and weight. In the paleontologist's lab, they will strengthen their fine motor skills as well as their observational skills. Children will practice writing in detail as they maintain field notebooks. As they gain knowledge about dinosaurs, they will enhance their skills in many areas.



Creating a New Center

Turning the Dramatic-Play Center into a Paleontologist's Laboratory

The most prominent item in a paleontologist's lab is usually a large block of rock. Bones are not removed in the field. Instead, scientists carry blocks of rock, with bones embedded in them, into the lab and work on them. You can simulate this block by making a matrix (see p. 72).

MAKING A MATRIX

You'll need:

- ⦿ bag of plaster of paris
- ⦿ large coffee can filled with fine bark mulch and dirt
- ⦿ medium cardboard box
- ⦿ plastic
- ⦿ bones (from the butcher)

To do:

1. Mix the plaster of paris according to package instructions.
2. Add the fine bark mulch and dirt, and mix together.
3. Line the cardboard box with plastic, and pour enough of the mixture to cover the bottom of the container.
4. Place the bones in the mixture, then pour the remaining mixture in the container.
5. Let the matrix dry, then remove the box and plastic. Place this block in the lab.

Add tools for removing the bones from the rock. Real paleontologists use tools such as air scribes, pin vises, air abrasives (miniature sand blasters), and microscopes for close work. Children pretending to be paleontologists can use other digging tools. Big nails, blunted at the end, work well for chipping and digging. You can also add other tools, such as little mallets, brushes, magnifying glasses, and most importantly, safety goggles for children working on the block.

Each child will also need a blank field notebook so he or she can record information just like paleontologists. Each specimen (or bone) gets its own identification number: three letters to represent the excavation site from which the block was removed, the year, and the next sequential number of specimens removed from rock that year. Field notes also include measurements, and the length and width of each bone. Paleontologists also note what kind of bone the new specimen appears to be.

TIP

Center Management

The paleontologist's lab will be a popular center. To handle the increased demand for the center, post a sign-up sheet near the center. Children can sign their names to the sheet as soon as they come into the classroom in the morning.

Enhancing Traditional Centers

Art Center

Paleontologists have found fossilized scale patterns of some dinosaurs, but no one knows for sure what color any of the dinosaurs were. Ensure that there is a sufficient variety of paint colors at the easel so children can paint pictures of dinosaurs. Add clay and small tools so children can sculpt different dinosaurs and create interesting scale patterns.

Block Center

Post pictures of geological layering. Encourage children to re-create rock layers in which dinosaurs are found. Children could also hide small bones in the pretend rock layer to indicate where dinosaurs might be found.

Listening Center

Add books about dinosaurs and audiocassettes of someone reading those books aloud. Professionally made audiocassettes may be difficult to find, but can be easy to create.

Math Center

This is the perfect theme in which children can explore the concepts of size and weight. Work with the children to demonstrate how long different dinosaurs were and how much they weighed.

Reading Center

Add a large collection of books about dinosaurs and paleontologists.

Sand-and-Water Center

Offer small plastic dinosaurs, pebbles, and small pieces of cedar and fern to encourage children to re-create scenes from dinosaur times.



Science Center

Even though dinosaurs are more closely related to modern birds than to modern reptiles, dinosaurs did have scales and laid eggs, like reptiles. Add reptile specimens and related books

to the science center. While most dinosaur bones were larger than any bones teachers could acquire, a collection of any kind of bones will help children get an idea of what a femur or shoulder blade looks like. A collection of fossils, which can be sorted, can help children begin to understand that animals that were once alive can become fossilized rock.

Writing Center

For this unit, a wide variety of paper and writing utensils should be available for children who want to write stories, reports, or fact cards about dinosaurs.

TIP

Center Set-up

Showing the length of some dinosaurs will spill out of the classroom and into the hall. Collect more than 100 12-inch rulers. Have the children research the length of several favorite dinosaurs. Place a piece of colored tape on the hall floor and line up as many rulers as the length of the dinosaur. Then, run colored tape down the hall beside the rulers to give students a graphic idea of the dinosaur's length.

TIP

Center Set-up

This would be a good time to help children understand that not all dinosaurs lived at the same time. For example, put out only dinosaurs from the Cretaceous or Jurassic periods for one day.

TIP

Storage/Organization

Use a labeled plastic container to store each type of fossil in your collection. This way, children have a practical reason to sort the fossils at cleanup time.



TIP

Center Set-up

Fold 4 or 5 sheets of paper in half and staple (with an extra-long stapler) to create small field notebooks. Encourage children to draw and write about their observations.

Culminating Activity

In the tradition of living-history museums, children can make appointments with different classes in the school to talk about their “lives as paleontologists.” They can dress in khaki shirts and pants along with hiking boots. Or, they can wear any kind of grubby clothes—some paleontologists simply wear old pants and shirts as their field clothes. A day pack, filled with digging tools, rock specimens, a field notebook, a bottle of water, and field snacks, would add authenticity. Children could write scripts or simply talk extemporaneously.

Vocabulary

paleontologist
fossil
excavation
rock hammer
awls
chisels
brushes
articulation
carnivore
herbivore

Extending the Theme

If the children enjoy being paleontologists and finding out how these scientists learn about dinosaurs, change the center materials the following week. Invite children to become geologists and find out how these scientists learn about rocks.

Books That Support the Theme

American Museum of Natural History: On the Trail of Incredible Dinosaurs by William Lindsay (Dorling Kindersley, 1998)

Realistic scale models were created and photographed in detailed action sequences that bring four types of dinosaurs to life.

The Best Book of Dinosaurs by Christopher Maynard (Larousse Kingfisher Chambers, 1998)

This book provides short descriptions of several different dinosaurs.

Big Old Bones: A Dinosaur Tale by Carol Carrick (Clarion Books, 1992)

This humorous picture book depicts an early paleontologist finding big dinosaur bones and reassembling the bones in his laboratory. The results were not exactly what the scientist was expecting.

Dinosaurs are Different by Alike (HarperTrophy, 1986)

This book explains how various orders of dinosaurs were alike and different in body structure and in their appearance.

Dinosaur Bones by Alike (HarperTrophy, 1990)

Alike explains how paleontologists study dinosaur bones and where they were found. You will find answers to questions, such as: How do we know when dinosaurs lived? What did they eat? What was their world like?

My Visit to the Dinosaurs by Alike (HarperTrophy, 1985)

Using a trip to a natural history museum as the context, different dinosaurs are described.

Growing Things

Background

Watching a seed grow into a plant can seem almost magical to a young child who has never experienced growing things. A child who helps on the family's farm may see growing a plant as an everyday occurrence; a city child will marvel at the process. When developing centers around the theme of "Growing Things," take into account your students' backgrounds. While the lessons you teach during this theme will involve the children in some sort of planting—from sprouting lima bean seeds in a cup to becoming caretakers for a flower bed—experimentation and discovery can go on in the centers.

Children take on the roles of a farmer, a gardener, a landscaper, and a fruit-and-vegetable seller. It helps them develop a beginning understanding of supply and demand, plant growth, ecologically sound practices, and an appreciation for the environment. The children are introduced to the parts of a plant and encouraged to use various media to reproduce images. As readers and writers, children can record the plants' growth, make observations of changes in the plants, observe and compare how changing variables, such as light or water, can affect plants' growth. The children can keep records of how many seeds they planted, how many seeds germinate, and how many plants grow.



Creating a New Center

Turning the Science Center into a Plant Nursery



The existing science center can become a plant nursery. In the center, place packets of different kinds of seeds, large buckets of potting soil, vermiculite or other soil amendments, small pots, spades, work gloves, small resealable plastic bags, and watering cans. Provide some old newspapers or plastic to cover

TIP

Center Set-up

Transfer potting soil, vermiculite, and other soil amendments from their original plastic bags to five-gallon buckets. The children can scoop soil from the buckets with less chance of spills.



the work area and floor for easier cleanup. A commercially sold Root-View Planter is a nice addition. The slanted, clear sides force root crops, such as carrots, to grow near the outside of the container where students can easily view them.

Add books about plants—both fiction and nonfiction titles—and photographs of gardens, farms, and landscapes.

TIP

Center Set-up

Radish and lima bean seeds sprout rapidly after planting. Children can see the results of their efforts in a short time.

Enhancing Traditional Centers

Art Center

Leaves for leaf rubbings, thin strips of bark for painting, and flowers for drying or pressing are all new additions to the art center. Many famous artists painted flowers and growing things—for example, van Gogh's *Still Life with Sunflowers* and Georgia O'Keefe's works. Include these artists' prints in the center.

Block Center

Blocks can be arranged to make farms, fruit or vegetable stands, gardens, and more. Add small farm implements (tractor, trailer, disc) to the center. Post photographs of various growing things here. Children might also be interested in shipping goods from farm to market by creating trucks, warehouses, and stores.

Dramatic-Play Center

Depending on the items added, the home center/dramatic-play center can be extended to different things during this theme. The home center's usual kitchen furniture can become a place to prepare vegetables that have grown in the garden. It can be a restaurant, where children can prepare food for customers, or a home's kitchen, where they can prepare food for a family. The area could become a nursery or store for selling plants, a farm's produce stand, or farm's kitchen. Provide small plastic fruits and vegetables. Child-sized tools, buckets, gloves, and hats can be added to extend the play.

TIP

Center Set-up

Old phone books make excellent places to press flowers. Pick unblemished flowers after any dew or excess moisture has dried. Carefully place several flowers on a page. Turn several more pages and repeat the process. Ferns are especially beautiful when pressed. Stack several heavy books on top of the phone book until the flowers have dried. The process takes a couple of weeks.

Listening Center

Many books-on-tape have growing things as a theme. Provide copies of fiction and nonfiction books and tapes about plants.

TIP

Center Set-up

Catchy tunes with amusing lyrics spotlight the recording titled *Dirt Made My Lunch*® by the Banana Slug String Band (Music for Little People P. O. Box 1460 Redway, CA 95560).

Math Center

Use large seeds, such as lima beans or buckeyes, as new manipulatives for sorting and counting activities in the math center. Children can also use play money to buy and sell at the fruit and vegetable stands. Provide cash trays or small compartmentalized trays for separating the coins and making change.

Reading Center

In addition to books about seeds, plants, and gardening, add gardening magazines and seed catalogs. The seed catalogs offer clear pictures of plants and often list growing requirements, characteristics, and more. Place informational charts made during this theme in the reading center, also.



Sand Center

Gardens grow in various types of soils and amendments. Extend the sand center to include samples of these different types of soil stored in small clear, plastic containers. Also, provide small hand tools for imaginative digging and planting in the center.



Writing Center

Provide materials to make gardening logs. The children can decorate the covers of simple journals with appropriate pictures cut from magazines or pressed flowers. Include a Polaroid® camera so the children can document changes in plants and write labels or explanations to accompany the photographs. Children can create stationery with pressed flowers and leaves.

Culminating Activity

Cook vegetable soup in the classroom. Work with the children to list the necessary ingredients and research recipe books if necessary. Plan a field trip to a local supermarket to purchase the ingredients (or gather them from the class's garden or a local community garden).

Involve children in the vegetables' preparation—washing and paring under close supervision. Cook the soup in a Crock-Pot® in the classroom. The children can prepare the classroom for lunch. They can set the tables

Vocabulary
photosynthesis
chlorophyll
botany
garden
compost
root
stem
leaves
fertilizer
organic

with spoons, napkins, and place mats. After eating, they can clean up the cooking supplies and tables. Families or other interested adults could be invited to share in the meal.

Extending the Theme

Children can join a community garden or establish one on their own. The food they grow can be donated to a local homeless shelter. They might be responsible for cultivating a flower bed at the school or planting decorative pots near the entrance to the school. By planting seeds or taking cuttings from plants, the children could grow gifts for their families.

Books That Support the Theme

From Seed to Plant by Gail Gibbons (Holiday House, 1991)

An expository text with a wealth of information for young gardeners, this book explores the intricate relationship between seeds and the plants that they produce. Clearly labeled diagrams and a glossary of terms add to the functionality of this book.

Growing Vegetable Soup by Lois Elhert (Harcourt Brace, 1990)

This book has a clear explanation of how seeds and plants combine to create a vegetable soup meal. Elhert's simple illustrations directly support the text, making the book appropriate for young readers.

How a Seed Grows by Helene Jordan (HarperCollins, 1992)

By outlining simple steps to establish a garden from seed, Jordan examines and explains the changes a seed goes through to become a plant.

More Than Just a Vegetable Garden by Dwight Kuhn (Silver Burdett Press, 1990)

Close-up photographs clearly illustrate the growth of seeds in a vegetable garden. The book extends the learning to the relationship between plants and animals in a garden. At the end of the book, clear directions are given for starting a garden indoors and transplanting to the outdoors.

The Sunflower by Marliese Dieckmann (Roberts Rinehart, 1994)

Niko and his mother put together a ball of seeds, nuts, and suet to help the birds survive the winter. Come spring, Niko is delighted to see that one seed has sprouted into a sunflower that will produce seeds to attract the birds back in the fall. Clear illustrations and concise text underscore how plants can grow in various environments.

The Tiny Seed by Eric Carle (Little Simon, 1998)

Eric Carle's colorful, imaginative collages support the simple description of a flowering plant's life cycle through the seasons.

Insects

Background

This theme appeals to young children—their fascination and curiosity coupled with a fear of the unknown make an irresistible combination. Insects are small enough to bring into the classroom for close observation—either holding them in a hand and peering through a magnifying glass, or looking through the safety of a clear plastic cage.

Young children often refer to any small insect as a “bug.” Scientists reserve the term “true bug” for insects with front wings that are thick and tough at the base, yet delicate and transparent toward the tips. An “insect” is an animal with an exoskeleton divided into three main body sections (head, thorax, and abdomen), six legs, and two antennae. While many reference books written for children interchange these terms, the classroom teacher can help children learn the difference.

As young children observe live specimens, care for them, and follow their life cycle, they learn characteristics of insects in general. Insects are easy to obtain. Children can make a simple pitfall trap from a shallow can or dish buried flush with the dirt in a flowerbed. They can collect crickets attracted to a streetlight, or capture grasshoppers by sweeping a butterfly net through tall grass.

The wealth of literature, both fiction and nonfiction, about insects allows emergent readers to expand their knowledge of the print–sound code. The children explore books to compare the specimens they have caught and the ones pictured in books. They measure the time it takes for a butterfly to complete its life cycle. While children watch silk-worms spin cocoons and emerge as moths, they record the changes they observe. They estimate and count the number of beetles or earwigs found under a flowerpot.

TIP

Center Management

Encourage the children to take clear plastic cages and lids with them when they go to recess. Observing and collecting insects will become a favorite recess activity.

Creating a New Center

Turning the Dramatic-Play Center into an Insect Museum



Arrange the dramatic-play center so that things made in the other centers can be easily displayed. This might mean removing the home-center furniture and replacing it with simple bookshelves. If this is not feasible, cover the stovetop with construction paper and use this space for display. As the children collect specimens, make models, and write reports, display them in the Insect Museum.

TIP

Center Set-up

For this theme it is helpful if the Insect Museum center and the science center can be close together so materials can be shared.

Enhancing Traditional Centers

Art Center

Provide clay or play dough for children to create realistic or imaginary insect models. Add pipe cleaners, small pom-pom balls, buttons, and sequins for the finishing touches to the models. Tempera paint and small brushes allow the children to paint the models.



Block Center

Post simple diagrams of insects in the block center so children can refer to them as they construct insects with the blocks, building the head, thorax, and abdomen. Add materials such as heavy twine, shoe boxes, netting, etc., and challenge children to create imaginative insect traps.



Listening Center

Place recordings of insect sounds in this center. Many environmental-sound tapes feature chirping crickets, buzzing bees, and other insects. Place fiction and nonfiction books along with the appropriate audiocassettes in this center.



Math Center

Small insect models will make interesting materials for sorting, patterning, and creating story problems. Provide small mats designed with simple outdoor sketches. Encourage children to use the manipulatives to illustrate equations on the mats.

TIP

Storage/Organization

Store the small manipulatives in small plastic tubs with lids. The small items will not spill as easily. Use a permanent marker to label the lid with the name of the contents.

Reading Center

Provide fiction and nonfiction texts for this center. Be sure to include books with clear illustrations for the children to use as references when constructing models. Offer adult books with colorful photographs, challenging texts that provide detailed scientific information, and grade-level appropriate books.

Science Center

During this theme, the science center will act as the working laboratory for the other centers. Group butterfly nets, small plastic jars with holes in the lids, long tweezers, and clear plastic cages together for gathering insects. Additionally, supply various-sized magnifying glasses and clear plastic boxes with magnifying lids for viewing the insects. Display posters or other information about insects in the center for reference use.

Center Set-up

Insects can be pinned to small pieces of Styrofoam and then placed on top of a unit block for display. Special straight pins for mounting insects are sold at hobby shops. The dark pins are thinner and longer than regular straight pins.

TIP

Sand Center

Add small models of insects to the sand center. Damp sand can be carved to simulate natural habitats for the insect models. Provide small tools for burrowing, such as twigs, straws, and popsicle sticks, and small shovels for moving the sand. Small spray bottles filled with water can be used to keep the sand moist.



Writing Center

Provide materials needed to construct signs for the Insect Museum. Card stock, markers, and tape will be needed for making tent-style signs. Children may decide to make posters to advertise their museum and to invite other classes to visit. Materials, such as poster board, letter patterns, glue, rulers, etc., should be provided for these activities as well.

Vocabulary

head
thorax
abdomen
antennae
cocoon
larva
pupa
metamorphosis
exoskeleton
entomology/
entomologist

Culminating Activity

Invite other classes to visit the Insect Museum. Children can make posters to advertise the event and act as docents for the visiting classes. The children might make simple brochures to explain the contents of the museum. Place the models and other materials on a rolling cart to make a mobile display.

Extending the Theme

The children could develop a field guide for identifying the insects found on the playground or area around your school. On a hall bulletin board, post the children's illustrations of insects common to your area. Add factual information about the insects. Include ways insects are helpful to the environment.

Books That Support the Theme

Amazing Insects by Laurence Mound (Alfred A. Knopf, 1993)

This book from the popular *Eyewitness Juniors* series provides clear text and photographs to introduce young children to the world of insects. Scientific learning is balanced with photographs and broken up into small bits for children to explore.

Bugs by Nancy Winslow Parker and Joan Richards Wright (William Morrow, 1987)

The scientific information is presented in an unusual style—as a response to a joke. This technique is effective, offering an opportunity for the reader to see an enlarged pen-and-watercolor drawing of the answer to the joke. While the text and drawings include animals that are not insects, the information presented is clear and understandable.

Children's Guide to Insects and Spiders by Jinny Johnson (Simon & Schuster, 1997)

This large-sized book provides a clearly organized introduction to more than 100 insects and arachnids, giving general information about family characteristics and habits, and more specific facts about some species. The use of outlined information boxes to display text and drawings on the page is quite effective.

Insects Around the House by D. M. Souza (Carolrhoda, 1991)

This book's clear text describes the life cycles and habits of various insects found in the house, including termites, houseflies, and cockroaches. The colored photographs, while not always to scale, document insect life.

National Audubon Society First Field Guide: Insects by Christina Wilsdon (Scholastic, 1998)

This visual guide includes information on the 10 most common orders of insects. The clear, colored photographs at the back make this book useful as a field guide for identifying insects.

Play and Find Out About Bugs by Janice VanCleave (John Wiley & Sons, 1999)

This text presents simple experiments to answer “I wonder” questions about insects. While the text sometimes interchanges the terms *insects* and *bugs*, it is a good reference for teachers and families for easy, fun activities to do with children.

Newspapers

Background

Newspapers are a common form of printed material. Many children have been introduced to newspapers in their homes, even if their experiences are limited to having Sunday comic strips read to them. Families are more likely to engage their children in experiences with newsletters if the teacher explains this unit at a family meeting.

Just as early childhood educators try to help young children understand that real people—authors—write the storybooks they read, children can understand the basics of how a newspaper is created. With some help, they can understand how many people are involved in producing daily newspapers, what some of those jobs are, and how the newspaper comes to be.

As they read about newspapers, they will learn how many components there are in creating something as complex as a daily newspaper. As they work individually and in groups to create their own newspaper, they will work on their nonfiction writing, learn more about the process of editing and revision, and begin learning the basics of interviewing.



Creating New Centers



Turning the Writing Center into a City Desk

Rearrange the writing center to resemble the desk of the city editor (most likely, the teacher will play the role of editor). Place stacking files as in-boxes for the editor, a container of pens and pencils, and several resource books, such as a dictionary, a thesaurus, and a local telephone book. Also, have stacking files for out-boxes for articles that need revision, are ready for typing, or are ready for publication.

TIP

Center Management

To help children remember their roles, help them create reporters' and columnists' hats. Staple heavy paper stock sentence strips to the size of the child's head, and encourage the child to decorate his or her hat.

Reporters' and Columnists' Desks

Borrow five or six desks from another classroom and place these around the room after a discussion of the role reporters and columnists play. Label these desks as working desks for students who are drafting articles.

Enhancing Traditional Centers

Art Center

Ask children to examine several newspapers and cut out examples of how drawings are used in newspapers. After analyzing the drawings (and most likely coming to the conclusions that most drawings are advertisements), ask children to draft advertisements for items they like, such as toys, books, and others.

Block Center

You may need to remove this center temporarily to make room for the “desks.” If sufficient room remains, post advertisements from the real-estate section of newspapers, and encourage children to recreate the houses pictured in these ads.

Listening Center

Using a small hand-held tape recorder, privately interview the children in the class about some of their interests. Put the tape in the listening center as a model for how to interview someone. Children love listening to themselves and their friends, so they will be drawn to the center to listen to the interviews. With some help in group discussions, children will understand the types of questions that are appropriate for interviewing someone else.

Math Center

Provide a collection of the Sunday advertising/coupon inserts. Have the children cut out coupons and sort them according to their values.

TIP

Center Set-up

For young children who have difficulty sorting coupons, offer a coupon-matching activity with exactly the same coupons, or use large and small logos for a matching activity.



Reading Center

Post book reviews published in newspapers (look for children’s books reviewed in newspaper sections dedicated to children). In a group discussion, list characteristics of a good book review and post that list in the reading center. Suggest that children identify one or two of their favorite books and write (or tape record for later transcription) their reviews of those books.

Science Center

This center may need to be removed temporarily to make room for the “desks.” If this is not practical, newspaper articles about science topics (astronomy, paleontology, animals, etc.) could be posted in this center to demonstrate that newspapers also cover science topics.

TIP

Center Management

Young children working with newspapers can get very messy. Take the time to teach two children how to refold newspapers and introduce them as “experts” that can help anyone who has trouble folding the newspapers.

Culminating Activity

The culminating activity for this theme would be the production and distribution of the class's own newspaper. Most likely, you will have to help with the final product, but the children will feel a real sense of ownership of the newspaper they wrote and gave to their families and friends.



Extending the Theme

If children enjoyed producing a class newspaper, they may also like to publish a shortened version of a class newsletter on a regular weekly or monthly basis.

Books That Support the Theme

A Day in the Life of a Newspaper Reporter by Mary Bowman-Kruhm and Claudine Wirths (Rosen Publishing Group, 1999)

This book describes the various jobs of a newspaper reporter: meetings with his editor, attending a press conference, researching topics, and writing a story.

Deadline! From News to Newspaper by Gail Gibbons (HarperCollins, 1987)

Gibbons details behind-the-scenes activities of a small daily newspaper.

The Furry News: How to Make a Newspaper by Loreen Leedy (Holiday House, 1993)

In this book, animals write and print their own newspaper. The book includes suggestions for creating your own newspaper and defines several newspaper terms.

Mr. Duvall Reports the News by Jill Duvall (Children's Press, 1997)

This book shows the daily work of a television reporter, from interviewing people to the actual broadcast. This could stimulate some interesting conversation about the difference between news written in a newspaper and broadcast on television.

The Paperboy by Dav Pilkey (Orchard Books, 1999)

This book narrates the story of a paperboy and his dog as they deliver the morning newspaper.

The Young Journalist's Book: How to Write and Produce Your Own Newspaper by Nancy Bentley (Millbrook Press, 1998)

While written for a slightly older age group (8 to 10 years old), this book describes the workings of a newspaper and gives practical advice on writing, producing, and distributing.

Vocabulary

reporter
editor
columnist
interview
deadline
feature story
review
op-ed pieces
section
distribution

Restaurant

Background

Most young children have had the experience of eating out, although some children's experiences may be limited to fast-food restaurants.

So, in essence, this thematic unit begins with experiences that children have already had. This theme of restaurant could be explored from the perspective of fast-food restaurants, such as McDonalds® or Taco Bell®. Fast-food places may even donate some props to make the dramatic play more realistic. Concepts of nutrition could be more easily explored through setting up centers related to full-service restaurants. If children have not experienced eating in full-service restaurants, a field trip to a local restaurant, complete with a behind-the-scenes visit to the food-preparation area and kitchen, will enhance the children's socio-dramatic play.

The restaurant theme allows teachers to begin with food concepts familiar to children and expand their knowledge about nutrition. Children will also sharpen their reading, writing, math, and science skills as they explore books, materials, and play props related to restaurants. Children will practice reading and writing as they create menus, fliers, and advertisements for their restaurant and take orders on order forms. As children price food items, write down prices on grocery lists from circulars, use a calculator or cash register, and "total" order forms, they will expand their math knowledge. They will use science skills of observation and learn more about nutrition as they create food items for their restaurant. Children will develop a greater sense of cooperation and sharing tasks as they work in all the learning centers.



Creating a New Center

Turning the Dramatic-Play Center into a Restaurant

Rearrange the home center into the kitchen area of a restaurant. Add large pots and pans, cookie sheets and cake pans, and a variety of cooking utensils, such as a rolling pin, hand-turned mixer, large spoons, etc. Create an area for wait staff to place written orders, and another area for chefs to place completed orders.

Rearrange classroom furniture so there is sufficient room to set up two or three tables to create the dining area of the restaurant. Cover the table with tablecloths and provide vases and silk flowers for children to arrange and display. Replace home-center plastic plates and eating utensils with dishes and flatware fitting for a full-service restaurant. Create a greeting station for customers, along with a laminated seating chart, grease pencil, and eraser for marking where customers are seated.

TIP

Storage/Organization

When you decide to use the restaurant themes, label one paper box "restaurant kitchen" and another "restaurant dining area." Make lists of the items you need for both prop boxes and send the lists home to families.

Enhancing Traditional Centers

Art Center

Add a variety of media that children can use to create artwork to hang in their restaurant. While framing each painting is not feasible, teacher-made frames from poster board will make the children's paintings look more professional.

Block Center

Add pictures of local restaurants to encourage children to re-create buildings with diverse architectural styles.

Listening Center

Add a selection of different types of instrumental music. This provides a good opportunity to include music from different cultures. Encourage children to listen to several selections, then choose pieces of music to play in their restaurant.

Math Center

Add teacher-created menus using numbers that the children can actually add, as well as children-created money, checks, and credit cards. With a cash register or calculators, children can explore writing orders and totaling bills. Younger children can sort coins.

TIP

Center Set-up

You can add a chart showing a proper table setting, along with plates, flatware, and napkins so children can practice setting the table.



Reading Center

Add a selection of fiction books about eating out and cooking magazines that include photographs of cooking projects in progress and in final form.

Sand Center

Add a variety of cooking utensils for cutting, mixing, mashing, stirring, and pouring. Children can experiment with these tools.

TIP

Center Set-up

Kitchen utensils can often be bought at garage sales for very little money. Let families know what you are looking for and they will often volunteer to go to garage sales on Fridays while you are teaching.



TIP

Center Set-up

In large cities, you can find pictures of restaurants in tourist guides often placed in hotel rooms. You can also take photographs of restaurants.

Science Center

On different days, introduce tasting experiences for children by preparing food in different ways. Vegetables, such as potatoes, carrots, beans, or peas, can be served raw, cooked, frozen, and canned so that children can compare how each tastes.

Writing Center

Put up newspaper advertisements and fliers from a variety of restaurants. Make different sizes of poster board, colored paper, and markers available to children, and encourage them to create their own advertising signs.



Culminating Activity

Divide the class in half. For the morning session, half the class will serve as chefs and wait staff; the other half will be customers for the restaurant. In the afternoon, reverse the roles.

With the children, select a simple menu that can be prepared in the classroom, such as rice and stir-fry vegetables. Rice can be prepared over a hot plate and vegetables can be prepared in an electric wok. Work with the children to identify different tasks that must be done to prepare food and serve it. The experience of planning a meal and implementing their plans will be an important process for children. Naming the restaurant, creating menus and order forms, choosing background music, creating the decor and advertisements for their restaurant will add a variety of learning experiences for children.

Vocabulary

menu
courses
appetizers
entree
pastries
waiter
service
napkin
place setting
flatware

Extending the Theme

As children begin to lose interest in the restaurant they created, suggest new kinds of restaurants. Other restaurant-oriented themes might be a Mexican food restaurant, a pizza parlor, a bakery, or a deli. In each case, the decor of the restaurant could be changed, as well as the menu, the advertisements, and the background music.

Books That Support the Theme

Friday Night at Hodges' Cafe by Tim Egan (Houghton Mifflin, 1994)

At an elephant cafe, Hodges has posted a "no tigers, please," sign. One evening, three tigers enter the cafe and order. Hodges' pet duck starts a food fight to distract everyone, but before it is over, Hodges reverses the "no tigers" rule.

Little Nino's Pizzeria by Karen Barbour (Harcourt Brace, 1990)

Tony often brags about helping his father in their small pizzeria. The pizzeria becomes a huge success, so Nino opens a big, fancy restaurant. Tony only seems to get in the way in the new place. In the end, Nino misses the smaller restaurant and reopens the pizzeria.

Mel's Diner by Marissa Moss (Troll, 1996)

Mabel works in her parents' diner, talking to customers, setting tables, cleaning the counter, and generally having a great time.

The Paper Crane by Molly Bang (William Morrow, 1987)

A stranger comes to a restaurant that is not very successful. Because he has no money, he pays with a paper crane that comes alive and begins to dance. People begin coming to the restaurant to see the special crane, and the restaurant becomes filled with guests.

Toad Eats Out by Susan Schade and Jon Buller (Random House, 1995)

It is Toad's birthday and he decides to celebrate by going out to eat. When he arrives at the restaurant, all of his friends are waiting for him to help make his birthday celebration a special one.

Uncle Phil's Diner by Helena Clare Pittman (Lerner Publishing Group, 1998)

This book is about the relationship between Ruthie and her father, who play games and share memories as they walk to Uncle Phil's diner one cold Sunday morning.

THEME 13

Rhythms/Patterns

Background

Rhythm is a flow, movement, or procedure characterized by a regular recurrence of elements or features. In art, this can be an aesthetic relation of part to part and of parts to the whole. In music, it can be the recurrence of grouped strong and weak beats. Stories may have a rhyming pattern on alternate lines of the text or there may be a predictable phrase that recurs at regular intervals in the story.

As students begin to understand rhythms and patterns, they begin to see relationships. They relate previous information to new knowledge, draw logical conclusions, and develop strategies for solving problems. They sort, compare, and order based on attributes. By using rhythms and patterns in centers, students are introduced to a multisensory experience, which provides optimum opportunities for learning.

Creating a New Center

Redesigning the Dramatic-Play Center to Include Patterns

The dramatic-play center represents everyday life. Hang curtains that have a distinct pattern. Place a patterned tablecloth on the table and add flowers in



a vase that displays a rhythm of design. A small rug and an apron with patterned borders make nice additions. The sink, stove, refrigerator, and hutch can be arranged in a tall-short pattern. Students should be taught how to set the table, and by using different colors, the patterns can be made visible. Don't forget the grocery list with its patterned paper!

Music Center

Music combines vocal or instrumental sounds or tones in varying melody, harmony, and rhythm to form a composition. Place professionally made or class-made instruments in the center. Add a variety of musical compositions, with and without vocal accompaniment. Encourage students to sing and/or play along with the music. It is fun to add a tape recorder so that the students can listen to the music they have created.

Enhancing Traditional Centers

Art Center

The existing materials may be used to create patterns. For example, construction paper cut into a variety of shapes may be used to create a patterned border for a picture or a story. Rubber stamps also make interesting designs. The students may design stationery for letters to parents, thank-you notes, classroom messages, and more.

Block Center

Architecture is full of rhythm in its designs. Add pictures of buildings, houses, castles, bridges, and other structures that clearly show a pattern in its form. Encourage students to use blocks to replicate the designs.

Listening Center

Make a recording of hand-clapping and/or foot-stomping patterns for the students to copy after they have listened to them. Household items make a variety of noises that are easy to identify. Place several copies of pictures of toasters, electric can openers, blenders, hair dryers, and other appliances in the center. Make a tape of the sounds using a pattern formation. After listening to the audiocassette, have the students re-create the pattern using the pictures.

TIP

Center Set-up

A large white sheet or piece of material can be cut and hemmed to make curtains, tablecloths, aprons, and even a wall hanging. Using fabric paint, students can create their own patterns and design the cloth accessories. Another method could be to simply apply iron-on designs to create a pattern.

TIP

Center Management

Place paper with an existing black-lined border in the art center to give students a boundary for this activity. Suitable stationery should be discussed prior to the activity so that the students understand what they need to do to have their work included in the classroom stationery.



Math Center

Add pattern blocks to encourage students to create designs. Post pictures of pattern-block designs or create a design that could be placed in the math center prior to the activity.

Reading Center

Add a selection of fiction and nonfiction books that use rhyme (as in Dr. Seuss books) or that contain a recurring phrase (such as *The Gingerbread Man*). Reproduce poems on card stock and laminate them so that students can underline or circle the rhyming words.



TIP

Storage/Organization

Find different uses for items already acquired. It is beneficial to reintroduce learning so that students have the opportunity to see relationships and make connections between prior and new learning. Using materials again and again also saves time in shopping for different items and saves on storage space.

Sand Center

Add molds to the sand center to encourage children to make patterns. Make measuring cups of water available so the students can find an effective consistency. Add items from nature, such as rocks, twigs, and leaves, to make a border for the molds.

Science Center

Arrange models from previous science centers, such as forest animals, sea animals, animal homes, and seashells, on trays for easy access. Allow children time to rediscover these items by sorting and classifying the items. Direct the students to make patterns from the objects.



Writing Center

Add laminated poems and nursery rhymes. Circle the rhyming words on some of these poems. Place a chart tablet and markers in the center with some rhyming words from the poems listed to encourage students to add words that rhyme. Invite children to write their own poems on blank paper.

Vocabulary

pattern
rhythm
rhyming words
recur
sort
compare
border
instruments
stationery
architecture

Culminating Activity

Plan a walking trip around the school to find patterns. Take two photographs of each pattern, one up close and one farther away. Use these photographs to create an interactive bulletin board display, called “Can You Identify the Pattern?” Cut poster board flaps to cover the “farther away” photo. Post the “close up” photo on the front of the flap. Have the students post the instructions so that the other students passing by will know to look at the picture on the top of each card, identify where they have seen each pattern, and then lift the card to check their answer.

Extending the Theme

Take the children on a walking trip of the neighborhood to find the many patterns in our everyday lives. Have the children carry a clipboard to sketch and/or write their findings. Visit a botanic garden and/or an art museum to discover the rhythm and patterns in nature and art.

Books That Support the Theme

Crocodile Beat by Gail Jorgensen (Aladdin, 1994)

Lying in wait in the water, Crocodile hears a multitude of animal sounds and plans on having a tasty dinner until he is bested by Lion.

The Grouchy Ladybug by Eric Carle (HarperCollins, 1996)

A braggart becomes a better-behaved bug as it learns about getting along with others.

Honey, I Love And Other Poems by Eloise Greenfield (HarperTrophy, 1986)

Through a series of 16 poems, a young girl describes the joys of everyday life.

Tomie dePaola's Mother Goose by Tomie dePaola (Putnam Publishing, 1985)

A wonderfully illustrated collection of more than 200 Mother Goose nursery rhymes

Zin! Zin! Zin! A Violin by Lloyd Moss (Simon & Schuster, 1995)

Lloyd Moss introduces the reader to the orchestra and the pleasures of classical music.

T H E M E 1 4
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Seashore

Background

Imagine the looks of amazement as students first encounter a seashore in their classroom! Although many children have not been to a seashore, most have had experiences with sand and water. However, these encounters may have led them to conclude that sand is found only in playgrounds and water originates at the spigot. This theme allows the children to study sand and water in a more natural environment. Of course, a field trip to the seashore is preferable, but may not be possible for your class.



The seashore theme allows students to learn about the earth, develop a respect for the environment, and expand their academic skills. Reading strategies are enhanced as the students explore books about shells, animals, and the ocean. Writing strategies continue to develop as they create a book about a coastal animal that interests them. Students' mathematical skills expand as they create patterns, sort, and classify shells. As children study the animals and explore with the sand and water, they develop scientific knowledge.

TIP**Storage/Organization**

Include the children's families when planning the seashore theme. A letter home asking for sand, shells, pictures, books, models of animals, and other items may supply many of the materials needed for the theme. Garage sales are also an inexpensive resource.

TIP**Center Set-up**

One way to achieve a seashore scene is to spread a large piece of plastic on the floor and spread sand over the area. Build in a corner of the classroom and extend the sheeting a few inches up the wall to help contain the sand. Crinkle and arrange blue tissue paper or plastic wrap to simulate the water.

Creating a New Center

Turning the Dramatic-Play Center into a Seashore



Rearrange the dramatic-play center to simulate a beach scene. Place seashells at the water's edge and arrange models of shore animals on the sand. Display pictures of beach houses or beach travel posters on the walls behind the seashore. Use a stool to represent a lifeguard's chair and add small fishing poles.

Enhancing Traditional Centers

Art Center

Already existing materials may be used to draw pictures of the seashore, make signs to be posted on the beach, or create travel posters. Invite students to create sand-art drawings. Add rocks (sandstone is effective), dark paper, and white glue. Have students draw a design on the paper with the glue. Holding a rock in each hand, children rub them together over the glue design, forming sand in the process. Let the drawings dry.

Block Center

Post pictures to illustrate houses found at the beach. Real-estate agencies create booklets with pictures of houses for sale and rent. Encourage children to use the blocks to replicate the designs. Houses on stilts are challenging. Pictures of boardwalks may also be added. Add blue construction paper to give houses that beachfront look.

Listening Center

Provide books on tape that focus on seashore topics, musical selections about the sea, and tapes of environmental sounds. Children could also watch a video about the seashore.

Vocabulary

seashore
sand
dune
salt water
wave
conch shell
oyster shell
crab
sea gull
sand castle

Math Center

Add a variety of seashells and a chart to identify the types of shells. Encourage students to discover different ways to sort the shells. The chart will help the students classify them. Using the classifications, the children can create patterns with the shells.



Reading Center

Add a selection of fiction and nonfiction books about the seashore, sand, ocean, animals, shells, and more, featuring colorful, realistic pictures and diagrams.

Sand Center

Display pictures of sandcastles. Add pails, small boxes, and plastic cups to serve as forms for their creations. Provide measuring cups for water so the children can find an effective consistency.

Also, add items from nature, such as rocks, burrs, and twigs. Encourage the children to decorate their sandcastles.



Science Center

Add hermit crabs so children can observe a seashore animal. Children could also construct a wave in a bottle. Pour equal amounts of oil and blue-tinted water into a bottle and fasten the lid securely. As children tilt the bottle from side to side, they'll see wave action simulated.

Water Center

Add tubs of water, aluminum foil, craft sticks, clay, glue, string, and a variety of other appropriate materials. Encourage students to construct a boat that will float in the tub of water.

Writing Center

Post pictures of seashore animals cut from magazines and a list of appropriate seashore words. Encourage students to create a book about an animal that interests them.

Culminating Activity

Plan “a day at the seashore” for the class. Encourage students to wear a sun hat and sunglasses and bring a towel. Arrange for the students to rotate through the activities:

- ⑥ **Find the Shells.** Hide shells in a large tub of sand and have students dig to find them. Assign a lifeguard to keep order.

TIP

Center Management

Some of the centers will be much more popular than others. To assure that each child will work in every center, provide a sign-up sheet. Place the name and/or a picture of each center on the sheet and draw lines under the name to indicate the number of children to work in the center. Explain to the children that they will sign up for a different center each day so that everyone will get a turn in every center.

- ⑥ **Float the Boats.** Using boats that the students created, test to see how many will float and for how long.
- ⑥ **Build the Castle.** Encourage students to work together to see how high they can build a tower.
- ⑥ **Build the House.** Encourage the students to collaborate to build a house on stilts.
- ⑥ **Fishing.** Attach magnets to plastic fish and fishing poles. Students sit on the sand and maneuver the poles into the pretend “water.”

Part of this “day at the seashore” can include two whole-group activities:

- ⑥ **Sunbathing.** Imitating beach goers, children spread their towels on the floor and lay on the towel. While sunbathing, students read the trade books used during this study or the child-created books.
- ⑥ **Playing Volleyball.** Divide the class in two groups for a game of volleyball on the playground. A rope with strips of cloth strung chest high makes an appropriate net for young children. Use a beach ball instead of a volleyball. End the day with lemonade and cookies.



Extending the Theme

Take photographs of each activity to create a class seashore book. Paste photographs taken of the various centers and culminating activities on paper and invite children to provide the words for the text. After binding the finished product, place the book alongside other published books.

Books That Support the Theme

Animals of the Sea and Shore by Illa Podendorf (Children’s Press, 1985)

This nonfiction text introduces creatures that inhabit the sea, and seashore animals with fur or shells, fins or legs, spiny skins or soft bodies.

At the Seashore by Pamela Hickman (Formac Publishing, 1997)

This book contains great ideas for things to do, games to play, crafts, and discovery—all at the ocean’s edge. Learn about the natural world and discover how to care for the environment.

By the Seashore by Tessa Paul (Crabtree Publishing, 1997)

Seashore animals, such as the sandpiper, sea turtle, and crab, are introduced.

The Living Seashore by Nigel Hester (Franklin Watts, 1992)

While describing the characteristics of animals and plants that live on different types of seashore, this book discusses species located in intertidal areas, tide pools, seashore cliff sides, pebble and sandy beaches, dunes, mud flats, and harbors.

On the Edge of the Sea by Betty Paraskevas (Aladdin, 1999)

A boy dreams that he lives in a sandcastle on the edge of the sea.



Notes