

Chapter One

THIS ROOM WAS MADE
FOR YOU AND ME

I imagine spending every day in a space designed for people much bigger than you. To wash your hands or get a drink of water, you would need to drag over a chair or ask a friend for a boost. Your feet would dangle in mid-air every time you sat down and you'd have to crane your neck back and stand on tiptoe just to read the daily announcements on the bulletin board. After the initial novelty wore off, it's likely that you'd feel uncomfortable, insignificant, and strangely out of place.

Unfortunately, this is how many children feel every day in their classrooms. Whether it's because the chairs are too big or too small, the aisles too narrow, the tables too high or too low to write on comfortably, the displays placed far above eye level, or materials difficult to reach, the message of the classroom setup is clear: "This room was not made for you."

Imagine instead a classroom that says, "This room was created for you, with your specific needs in mind, because you and your learning are important."

In a kindergarten classroom of exuberant five-year-olds, it might mean that the teacher has removed furniture to make room for more large-muscle activities like block building and water play. In a classroom filled with eleven-year-olds who crave autonomy from teachers and interaction with peers, it might mean that desks have been arranged in clusters with children choosing where they will sit based on the kind of work they're doing. It might mean that a private, quiet "office area" has been created for a child with attentional difficulties, or a table has been raised on blocks so that a child in a wheelchair can sit and write comfortably.

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Introduction

I recently visited a second grade classroom where the chairs were far too high for most of the children. While the teacher wasn't able to purchase new chairs, she was able to supply children with simple wooden blocks which they kept under their chairs to use as footrests. This was a wonderful example of how a teacher's touches can sometimes make all the difference between an environment that alienates children and one that embraces them.

A footstool placed near the sink, a display placed at children's eye level, a cozy, quiet corner in which to read a book, a comfortable beanbag chair to sit in with a friend—all of these details, created by the teacher and based on his/her knowledge of children, are ultimately what work together to make children feel comfortable, significant, and at home in their classrooms.

Over the course of the past thirty years—twenty years spent as a classroom teacher and ten years as a consulting teacher working in public schools nationwide—I have had a hand in setting up hundreds of classrooms and have seen just about every obstacle a teacher might face. I have worked in countless classrooms with inadequate storage, electrical outlets, bulletin boards, and counter space. I have worked in classrooms that are overly crowded and classrooms that are so big and empty that they give you the feeling of being in a warehouse rather than a schoolhouse. I have set up classrooms in basements with no windows, in rooms with no closets or walls, in trailers and other temporary spaces, and in “all-purpose rooms.”

The sad fact is that most classroom spaces are far from ideal. Perhaps they were originally designed and built with little or no consultation with the teachers who would be working in them. Maybe they were designed for another purpose, or with tight budgetary restrictions.

While the barriers may sometimes feel insurmountable, the reality is that most teachers have no choice but to work with what they have. And while teachers probably won't be able to transform an inadequate classroom space into an ideal one, they can make dramatic improvements.

So, where to begin?

The most obvious place is by thinking about the students. Before moving a single piece of furniture or clearing a wall for a display, learn as much as you can about the particular needs of the children you'll be teaching. Since it's likely that you'll be setting up a classroom for a group of students whom you don't know yet, you'll have to begin by gathering information about them from families and former teachers.

In addition, you'll want to get a general sense of the overall developmental needs of the group. This will be addressed in detail later in this chapter.

Goals of Setting Up a Classroom for Students' Needs

There are essentially three goals to keep in mind as you arrange your classroom to best serve the children's needs:

- **The classroom should fit the range of physical sizes of the group.**
- **The classroom should accommodate children with special needs.**
- **The classroom should support students' developmental needs: emotional, social, cognitive, and physical.**

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GETTING STARTED

Let's look at each of these goals individually as well as strategies for achieving them.

Make the Classroom Fit the Children's Bodies

While thinking about student size may seem too obvious a place to begin, I have learned through experience to make this an explicit part of the planning process. Too many times I have watched students struggle with attention and behavior problems that were clearly the result of being in spaces that were too small, too crowded, or otherwise unsuited to their physical sizes.

So, how do you go about considering size when setting up a classroom? The first step, before you even meet the students, is to estimate the range of sizes based on what's typical for that age. Next, use this estimate to:

- *Choose desks, tables, and chairs that fit the children.* This will not always be possible, but when choices exist, school furniture catalogs, which provide standard height and width calculations based on grade ranges, provide a useful resource. (See Appendix D for recommended sources of classroom furniture.) Also, as the earlier example of the footstools shows, with a little creativity you can make modifications to what you have to work with.

- *Select and arrange freestanding bookcases and shelves in the classroom.* In general, children should be able to see and be seen over any set of shelves placed inside the perimeter of the classroom. Shelves that are taller than the students should be placed along the perimeter.
- *Plan the amount of space needed for class gatherings or meetings.* When children are sitting in a circle or oval shape, there should be approximately three inches between each child regardless of whether children are sitting on the floor, in chairs, or on benches. By estimating the average size of each child and adding the amount of extra space needed for each child, you can plan fairly accurately for a comfortable and workable whole-class meeting space.
- *Plan how to organize students for table work.* When children sit at a table to work, they need space for “elbow room” as well as a surface area on the table for their work and materials. Plan for this space in advance.



- *Determine where to locate display areas and bulletin boards.* Displays meant for children’s viewing and use should be at the children’s eye level whenever possible.
- *Plan enough space for the children to line up at the exit door.* To have children stand in line comfortably and safely, it is best to allow about nine inches between each child. By estimating, using the size of the children, the number in the class and the nine-inch rule, you can plan enough space for all children to line up in the room without bumping into obstructions or each other.
- *Plan passageways—the aisles children use to move about the room.* In general, a passageway should allow two children to walk past each other comfortably.

After students arrive, reassess your plan by observing how the students use the room. During the first weeks of school, while teaching students how to work in the classroom environment, deliberately watch how they use the space and manage their behavior. Make necessary adjustments and, whenever possible, involve students in the process of resolving space problems that arise.

I once watched a fourth grade teacher do this very effectively during the first week of school. Lacking a space large enough to serve as a permanent whole-class meeting area, she decided to teach students how to move tables out of the way and bring their chairs into a circle for meetings. After teaching a process for doing this safely, the teacher allowed the children to practice on their own for a few days. Each day she asked the children to reflect on their progress in creating a clear, unobstructed circle in a timely and safe manner. Problems were acknowledged and solutions suggested, such as turning the tables sideways so that they would not intrude on the circle. Finally, after a few days of trying out various strategies and reflecting on their progress, the students and teacher decided together to relocate a set of file cabinets to a corner of the room in order to create the space they needed.

Inviting student involvement enlivens the process of classroom design, gives children a sense of ownership, and increases their cooperation and investment in making the design work.

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Plan for Children's Special Needs

With more and more schools providing inclusion for students with special needs, it is essential that teachers consider how their classroom design will accommodate these children and help them feel a sense of belonging in the community.

The best place to begin is by having a conversation with the child, the child's family, and the team that is developing the child's education plan. In this way you can learn about the student's needs from many perspectives.

Depending on the child, adjustments may range from minor changes to major adaptations. A student in a wheelchair, for instance, might require additional space when sitting in a group or maneuvering around the classroom. A student who exhibits impulsivity might need two distinct work environments—one among classmates (at a table or desk group) and one by him/herself.

Having one or more one-on-one teachers aiding children with special needs will also impact the room design. Often, these teachers will need desk space of their own with access to special adaptive computers and materials.



There are excellent resources available on teaching children with special needs and making accommodations for them when designing classroom spaces. The Americans with Disabilities Act (ADA) Technical Assistance Program offers many excellent resources on their website: www.adata.org.

Finally, we all encounter students who are so much shorter, taller, or heavier than others that they need special accommodations to give them equal access to the classroom environment. Because these students often are already highly sensitive, teachers need to be flexible and creative in meeting their needs without drawing attention to them. Generally, simple measures can make a big difference for these students. Perhaps sturdy step stools can be placed beside shelves and work areas for short students, or chairs can be provided for everyone at circle time so that larger students can sit more comfortably without being singled out.

**Consider
Children's
General
Developmental
Needs**

Consider Children's General Developmental Needs

While every child is unique, there are clearly predictable stages of development which most children go through. Take, for instance, the newly discovered independence of the two-year-old, the expansiveness of the six-year-old, the inward-looking tendency at seven, or the social awkwardness at eleven. Developmental theorists, like Piaget, Gesell, Erikson, Montessori, and Vygotsky, have taught us that as children grow, they pass through recognizable stages of development which teachers and families can come to understand and expect. While personality, life experience, temperament, and other factors all affect the rate at which children develop, most children pass through developmental stages in a fairly predictable fashion.

Understanding these patterns will help you to create effective classroom designs. In his book *Yardsticks: Children in the Classroom Ages 4-14*, Chip Wood asserts that "Children's developmental needs should be the foundation for every choice we make in our classrooms and schools. They need to remain at the center of our decisions about school organization, policies, scheduling, and everyday practices." (Wood 1997, 1) The critical question to ask yourself is "What are the general developmental traits I can expect from the group of children I'll be teaching?"

The first step is to determine the chronological age or cluster of ages, say, seven to seven-and-a-half, that represents the majority of students in your class. The birthday cluster exercise described on the following page will help you do this.

Of course, a single-grade classroom will always contain a wide range of chronological ages and, most likely, a span of developmental ages as well. In a multi-age classroom these spans double or even triple. While a teacher must meet the needs of every student in the class, knowing the dominant age of the students lets you make rough predictions about their range of developmental needs. Do you have a particularly young group of children this year? A particularly old group? Or a group with half of the children clustering in the young range and half in the older range? Gathering and reflecting on this information will allow you to be far more effective and efficient in creating and organizing a space that works for most of the children.

As the year progresses and you come to know students individually, you can make adjustments to best meet the changing needs of the group and the individuals within it.

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The Birthday Cluster Exercise

The birthday cluster exercise, developed by Chip Wood, offers one way for teachers to identify and organize information about the chronological ages of their students. It can give you a general sense of the developmental needs of a group of children and valuable insight into the behavior of individual children, especially those who fall outside the dominant age cluster.

The best time to do this exercise is as soon as you get your class list in the late summer. This will give you time before school begins to consider the developmental needs of the children in the group and organize the room accordingly.

As you do this exercise and consider the developmental ages and needs of the children in your classroom, it is important to keep in mind the following concepts regarding child development:

- *When a child moves into a new stage, it normally takes the child about three months to consistently exhibit the behavior of the new age.* For example, a child who turns seven in September will likely continue to exhibit some characteristic six-year-old behavior into December.
- *Not all children will pass through the developmental stages at the same rate.* Therefore, developmental age does not always match chronological age. A child might be ten chronologically but behave with characteristics more in keeping with a nine-year-old. If this behavior lasts more than three months into the new age, this child is most likely developmentally nine and needs to be treated differently than a ten-year-old.

**The Birthday
Cluster
Exercise****The Birthday Cluster Exercise**

Below are the steps to follow for the birthday cluster exercise. The samples on the following pages serve as illustrations of completed exercises from actual classes.

Step One: *List the students in the class by birth order from youngest to oldest.*

For each child identify the birth month, day, and year. Pay careful attention to the year of birth, particularly around the entrance cut-off date for your school. Based on the birth dates, list three more pieces of information beside each name:

- The chronological age in years and months on the first day of school
- The expected developmental behavioral age, taking into consideration the three-month lag described above
- The expected developmental behavioral age six months from the opening day of school

Step Two: *Identify the clusters of birthdays.*

Where do they fall? Is there a large cluster of summer birthdays, winter birthdays, or summer and spring birthdays with not many in between? This will give you important information about the developmental traits likely to appear in the class.

Step Three: *Anticipate the changes that will occur in the group's development over the course of the school year.*

Since children are growing all the time, teachers need to plan in advance for likely design changes. While many teachers put a lot of emphasis on arranging their classrooms in September, they often overlook the fact that students' developmental needs change throughout the school year.

Note: If it's already well into the school year, you can still switch from listing students alphabetically in your grade book to listing them by birth order. Most teachers who try this find it enlightening. Almost immediately they understand why some of their students behave in younger ways than the rest of the class!

Name	D.O.B.			Chronological age 9/6/00	Expected behavioral age 9/6/00	Expected behavioral age 3/6/01
	M	D	Y			
Emma	8	26	93	7 ⁰	6-7	7
Vaughn	8	23	93	7 ⁰	6-7	7
Suly	8	10	93	7 ⁰	6-7	7
Grace	8	8	93	7 ⁰	6-7	7
Mack	7	24	93	7 ¹	6-7	7
Stephanie	7	15	93	7 ¹	6-7	7
James	7	9	93	7 ¹	6-7	7
Joshua	7	6	93	7 ²	6-7	7
Amelia	7	3	93	7 ²	6-7	7
Amanda	6	21	93	7 ²	6-7	7
Erika	6	12	93	7 ²	6-7	7
Austin	5	20	93	7 ³	7	7
Zach	4	9	93	7 ⁴	7	7
Jeanette	4	9	93	7 ⁴	7	7
Connor	2	27	93	7 ⁶	7	7-8
Amanda	2	4	93	7 ⁷	7	7-8
Angel	1	13	93	7 ⁷	7	7-8
Oskar	12	30	92	7 ⁸	7	8
Olivia	12	28	92	7 ⁸	7	8
Lucas	11	5	92	7 ¹⁰	7	8
Alexander	10	26	92	7 ¹⁰	7	8
Jean	12	12	91	8 ⁸	?	?
Emily	6	6	91	9 ³	?	?

Birthday Cluster Sample:
Ms. T.
Second Grade Class

1. There is a birthday cluster in the summer months, which means the class will be on the young side for second grade, with many children showing six-year-old behavioral characteristics in the fall. Ms. T. will arrange the classroom with a focus on meeting the needs of this younger group.

2. The remaining birthdays (with the exception of two) are evenly scattered through the spring, winter, and fall. While keeping the design of the classroom geared toward the younger group, Ms. T. will make modifications to meet the needs of these seven-year-olds.

3. Ms. T. will observe and find out more about these two children to understand their placement in this class and meet their needs.

In six months, when the majority of the group is showing solid seven-year-old behavior and a few children are showing eight-year-old behavior, Ms. T. will make changes in the classroom to meet the children's changing needs. The thrust of the changes will be focused on meeting the needs of the younger group.

Name	D.O.B.			Chronological age 9/6/00	Expected behavioral age 9/6/00	Expected behavioral age 3/6/01
	M	D	Y			
Ricardo	9	30	92	7 ¹¹	7	8
Jasmine	9	9	92	7 ¹¹	7	8
Roque	8	31	92	8 ⁰	7-8	8
Daijsia	8	17	92	8 ⁰	7-8	8
Aisha	7	3	92	8 ²	7-8	8
Peace	6	21	92	8 ²	7-8	8
Hiko	5	6	92	8 ⁴	8	8
Brittany	5	2	92	8 ⁴	8	8
Annie	4	30	92	8 ⁴	8	8
Allyson	4	20	92	8 ⁴	8	8
Jerard	4	2	92	8 ⁵	8	8
Juston	4	2	92	8 ⁵	8	8
Diana	2	24	92	8 ⁶	8	8-9
Julia	2	22	92	8 ⁶	8	8-9
Victoria	1	27	92	8 ⁷	8	8-9
Ebony	1	24	92	8 ⁷	8	8-9
Lisanna	1	10	92	8 ⁷	8	8-9
Elizabeth	1	3	92	8 ⁸	8	8-9
Guillermo	12	20	91	8 ⁸	8	8-9
Lisa	10	14	91	8 ¹⁰	8	9
Danavian	10	3	91	8 ¹¹	8	9
Carlos	5	3	91	9 ⁴	?	?
Hgozi	5	1	91	9 ⁴	?	?

Birthday Cluster Sample:

Mrs. L.

Third Grade Class

1. There is a birthday cluster in the winter and spring months, which means students will be on the average to older side for a third grade class. Many children will be showing solid eight-year-old behavioral characteristics when they enter school in the fall. Mrs. L. will organize the classroom to focus on meeting the needs of eight-year-olds.

2. Mrs. L. will make adjustments for these six younger children who may still be showing seven-year-old characteristics in the fall.

3. These four children fall on the older side of the birthday cluster. The two children with October birthdays are in this class because their birthdays fell short of the school entrance cutoff date of October 1. Mrs. L. may need to make a few adjustments for them. She will observe and learn more about the other two older children to understand their placement and meet their specific needs.

In the spring Mrs. L. will make adjustments to the classroom to meet the changing needs of the class. During the latter part of the school year, the class will be showing more and more nine-year-old behavioral characteristics.

Key Growth Patterns and Implications for Classroom Setup Ages 4–12

The following charts offer a summary of the key developmental traits of children at different ages and the implications these traits have for classroom setup. The information regarding general growth patterns has been culled from Chip Wood's book, *Yardsticks: Children in the Classroom Ages 4–14*. For more information on children's developmental characteristics, see the recommended resources in Appendix E.



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One

Four-Year-Olds

Key Growth Patterns

- **Learn best through large-muscle activity**
- **Learn best through play, exploration, and physical activity**
- **Short attention span; learn best in small doses**
- **Vision is in the far field; not ready for much close-up work**
- **Gregarious and like working with others, though still often play in parallel with others**

Four-
Year-Olds



Classroom Setup Implications

- Classroom needs more open space than furniture. Limit amount of furniture, especially tables and chairs.
- Arrange furniture to create many open and spacious interest areas that allow groups of children to work together. Make sure furniture can be moved aside easily for large physical movement. Passageways around interest areas should be uncluttered and roomy. But avoid creating long, straight “runways” that invite children to run.
- Learning materials should require manipulation, exploration, and use of large muscles. Examples include blocks (big, hollow, or unit blocks, Legos, pattern blocks, etc.), puzzles, counting and interlocking math manipulatives, big books, picture books, stand-up easels for painting, markers, crayons, pencils, a sand and water table, puppets, and other dramatic play props.
- Limit the number of learning materials on a shelf or in an area, but change them regularly.
- Have displays that focus on big pieces of work—for example, group murals, easel paintings, and block constructions—for short periods of time (sometimes only for the day). Use photographs of the children working in various areas as displays. Change the photographs often.

Chapter
One

Five-Year-Olds

Key Growth Patterns

- **Active but gaining control over physical behavior**
- **Learn best through play and self-initiated action**
- **Repetition maximizes learning**
- **Vision is in the near field; ready for some close-up work**
- **Anxious to be “good” and “right”; like approval and rules**
- **Like to work with others in pairs or small groups**

Five-
Year-Olds



Classroom Setup Implications

- Arrange the room with defined learning/interest areas (Math Area, Block Area, Reading Corner, Listening Station, and Discovery Table, for example). All furniture, tables, and shelves in the classroom should be part of a learning area, not in addition to them.
- Low dividers around learning areas can be used to create closed-in, protected work places. However, make sure the dividers are low enough so children and teachers can make eye contact with each other from any spot in the room. Knowing they can be seen is essential for a five-year-old's sense of security.
- Clearly label learning areas and define the number of children who may use an area at one time in order to give a structure for success.
- Offer learning materials that invite active and concrete exploration. These could include blocks, manipulatives, paint, other art supplies, sand and water, and dramatic play props.
- Limit paper and pencil tasks and offer many choices of tools for writing—fat and skinny pencils, crayons and markers, unlined and lined paper, big and small sheets of paper.
- Clearly label all materials and their storage places.
- Make displays that are “language rich,” using familiar and predictable language patterns that children learning to read can easily recognize. Create displays that feature a wide variety of work, encouraging children to take risks and try new mediums.

Chapter
One

Six-Year-Olds

Key Growth Patterns

- **Boisterous, sloppy, speedy; like to stand up and sprawl out to work**
- **Learn best through discovery; like process more than product**
- **Good visual pursuit but unable to shift back and forth from near to far vision, making copying from the black board developmentally inappropriate for most children this age**
- **Like new ideas, games of all sorts, artistic expression**
- **Competitive; can be bossy**
- **Socially enthusiastic; having lots of friends is important**

Six-
Year-Olds



Classroom Setup Implications

- Furniture arrangement should support independence and new challenges in learning. Create an arrangement that offers plenty of open space for the six-year-old to sprawl and move about speedily while working. Not all tables or work surfaces need chairs and not all work surfaces need to be desks or tables. Desks can be grouped to make work areas for four to six children. Make clipboards available for working without a table or desk.
- Learning materials should invite active and concrete exploration, include a variety of games, and provide for broad experiences in the arts.
- There can be more paper and pencil tasks at this age, but it is critical that they are connected to active exploration. Offer a range of choices in writing tools and paper.
- Displays of work should change frequently and be “language rich.” Create displays that show examples of “learning in progress” (for example, work that shows fixed mistakes, which draws attention to the process rather than the finished product) as well as some examples of quality final drafts.

Chapter
One

Seven-Year-Olds

Key Growth Patterns

Seven- Year-Olds

- Like their privacy; like to work alone or with one friend
- Friendships shift very quickly
- Introspective, serious, moody, more reflective, easily distracted
- Visually nearsighted; written work is often tiny in size; still have difficulty shifting back and forth from near to far vision, making copying from blackboard developmentally inappropriate for most children this age
- Like working in confined spaces
- Like to review learning; perfectionistic; interested in details of how things work
- Need active exploration of concrete material for understanding, but ability to represent understanding symbolically is increasing



Classroom Setup Implications

- Furniture should be arranged so that children can work with partners or alone more often than in groups. Seating assignments should change regularly.
- Seven-year-olds often prefer individual desks to tables for work areas. They need spaces that offer privacy for working and for talking out “friendship” problems. Cardboard screens placed on desks can create such spaces.
- Most learning areas except for blocks and science should now be organized primarily as supply areas where children can get necessary learning materials and take them back to their individual spaces.
- Learning materials should still include many manipulatives, with an emphasis on small manipulatives, board games, puzzles, mazes, and codes. There should be plenty of opportunities for drama, science, and social studies discovery.
- Give lots of choices of art materials and writing tools. Offer many possibilities for symbolic and miniature representations of how things work in math, science, social studies, and language arts. Writing tools should include skinny pencils, replacement erasers to fit over used-up erasers, and lined paper.
- Focus displays on finished products, giving special attention to the display process. Create displays that show one “perfect” aspect in the product rather than overall perfection.
- Displays that provide concrete, specific rubrics for “perfection” (for example, an “Editor’s Checklist” on the wall near the writing supply area) offer children a way to do self-checks comfortably.
- Create displays that document individual children’s growth without comparison to others.

Eight-Year-Olds

Key Growth Patterns

Eight- Year-Olds

- **Gregarious; like groups of friends; prefer same-gender activities**
- **Love to work cooperatively; most productive in group activities**
- **Vision becoming strong in near and far field, making copying from the blackboard possible now for most children**
- **Full of energy; tire easily but bounce back**
- **Gravitate towards forming “clubs” which can exclude others**
- **Very industrious but often exaggerate their own ability**
- **Have difficulty with organization**



Classroom Setup Implications

- Furniture should be arranged to create groups of desks or groups of children at tables. Change groups often to provide deliberate mixing of genders and friendships.
- Arrange furniture so it can be moved quickly and easily for whole-group “energy” breaks.
- Most learning materials should be provided in supply areas in the classroom.
- Make allowances for children who are younger and physically unable to copy from the blackboard. These children will be able to copy from a sheet of paper laid next to the paper they’re copying onto.
- Continue to provide learning materials that allow for concrete, active exploration.
- Classroom materials should focus on helping children develop a multicultural and multiracial perspective and learn about the interdependence of communities.
- Learning materials should also include tools (such as planning and results forms, self-check lists for assignments and homework, etc.) that can help children to organize, plan realistically, and follow through with their plans.
- Displays should reflect the work of groups of children more than that of individual children. Display all children’s work and draw attention to the value of diversity in the work displayed.

Chapter
One

Nine-Year-Olds

Key Growth Patterns

- **Increased coordination and control of fine motor abilities; fatigue easily**
- **Industrious; highly competitive; individualistic**
- **Worrier; anxious, negative**
- **Can work in groups but with lots of arguing; relationships center around interests**
- **Like to work with partner of choice—usually a same-gender partner**
- **Greater intellectual curiosity**
- **Take pride in finished work; greater attention to detail**

Nine-
Year-Olds



Classroom Setup Implications

- Organize the room so the furniture, primarily desks or tables, can be moved to create different groupings based on the purpose of the work and the interests of the children. Each grouping should have a distinct purpose—the grouping should last for as long as a project needs it, and then it should change.
- Arrange furniture so it can be moved quickly and easily for whole-group “energy” breaks.
- Make most learning materials available through supply areas in the classroom.
- Learning materials should reflect the shift from “learning to read” to “reading to learn.” Have on hand lots of mysteries, biographies, nonfiction, and resources for beginning research tasks.
- Introduce many new tools for practice with “intense detail” work, such as calligraphy, embroidery, map making, and diagramming.
- Continue to provide materials for concrete, active exploratory experiences.
- Create displays that show the nine-year-old’s capacity for in-depth study and for creating completed quality products. Competitive tendencies can be directed to self-evaluation by emphasizing patterns of growth in displayed work (“before” and “after”).
- Use posters and signs created by children to add humor and lighten an atmosphere of negativity and worrying. (For example, I’ve seen playful posters created by third and fourth graders with the words “I can’t” in the center of a circle with a bold, black diagonal line cutting through the words.)

Chapter
One

Ten-Year-Olds

Key Growth Patterns

- **Growth spurts begin**
- **Continued strengthening of fine motor skills**
- **Work very well in all kinds of groups; good at solving social issues**
- **Will do more gender mixing on their own**
- **Concrete organizational skills are at their height; classification skills and exactness are strong**
- **Increased ability to think abstractly**
- **Active, receptive learners; memory very strong**

Ten-
Year-Olds



Classroom Setup Implications

- Design the room to allow for large cooperative groups and for children to pick places to work that fit their personal needs at the time. Places for quiet rest are still essential.
- Children can help to organize and label the classroom. They can help decide how to group desks or tables and how to use classroom space.
- Provide learning materials that emphasize the use of memory as a learning strategy for geography, all kinds of fact acquisition, spelling, math, singing, drama, and poetry and choral readings.
- Provide games and learning materials that are strategy and movement oriented.
- Provide tools that allow children to work with a focus on details; tracing, mapping, cartooning, and making comic books are all popular at this age.
- Create displays showing finished products that highlight individual and group competence. Displays can also highlight ten-year-olds' strength in memory and interest in collections.

Chapter
One

Eleven-Year-Olds

Key Growth Patterns

Eleven-
Year-Olds

- **Vast appetite for food and physical activity; in constant motion; often stressed**
- **Seek to belong; desire to form cliques is at its height**
- **Learn well in cooperative groups**
- **Not likely to do gender mixing on their own**
- **Love to argue and test rules; saving face is important**
- **Ready for new and demanding skills in cognitive arena; like work that feels grown-up**
- **Deductive reasoning advances but hands-on learning still critical**
- **Highly improved fine motor skills coupled with increased confidence in this area**



Classroom Setup Implications

- Arrange furniture so children can work together in groups often.
- Create groups with an academic purpose and change groups often, deliberately mixing genders and makeup of groups. Allow children opportunities to choose groups as well.
- Furniture should be easy to move to allow for physical activity indoors when necessary.
- Provide a private place for children to cool off when upset and/or to talk privately with the teacher or other children in order to work through social problems.
- Provide learning materials like a telephone and computer to help children do “real life” research.
- Provide materials which expose children to art, music, and handwork (such as sewing, weaving, and braiding). Children at this age are especially interested in learning new art forms and exploring delicate work (calligraphy, linoleum block printing, and Japanese brush stroke, for example).
- Plan for frequent food breaks during the day to help relieve stress, provide needed energy, and aid concentration.
- Displays should reflect effort, showing works in progress and highlighting intriguing questions from students’ research and interviews. Displays should make explicit the connections between the children’s work and adult work. Use displays to honor cooperative group efforts and validate diversity.

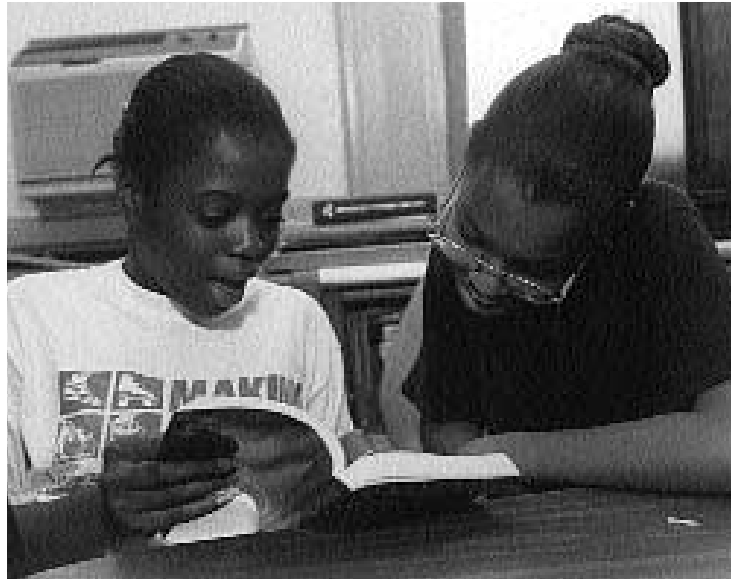
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Twelve-Year-Olds

Key Growth Patterns

- **Frequent growth spurts; food and rest are very important**
- **Increased fine motor ability**
- **Peers more important than teacher; peers can help each other significantly with subject matter**
- **Will initiate own activity; self-awareness develops; adult personality begins to emerge**
- **High interest in current events, politics, social justice, pop culture**
- **Increased ability to think abstractly; research and study skills advance**

Twelve-
Year-Olds



Classroom Setup Implications

- Furniture arrangement should allow children to create the work areas they need—sometimes to work alone and sometimes with a group. Children need comfortable places to rest and read, as well as furniture and spaces for partner work and peer conferencing. Involve children in creating structures for organizing and cleaning up the classroom.
- Learning materials should offer opportunities to connect learning to the events and concerns of the real world. Newspapers, magazines, fiction with themes that tie into current events and social justice, and nonfiction that supports research in high areas of interest (such as the environment, history, economics, and social justice) are often effective learning materials. Library tools, adult tools for learning in science and math, and access to computers and word processing are essential.
- Materials for handwork and art expression are still important and necessary.
- Allow children to eat regularly during the day.
- Displays should highlight finished products that show children’s depth of knowledge and acquired skills. Classroom displays can provide a place to recognize and celebrate children’s accomplishments, competence, and growth into adult roles.

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FINE TUNINGS

Q. *This year I will have a young child in my classroom who is legally blind and sees only light and dark shadows. He'll spend approximately half of his day in my room and have a one-on-one teacher to support his movement and help his learning by translating materials into Braille. What design implications should I consider?*

A. There are two significant space adjustments to consider. First, the one-on-one teacher may need a desk of her own. Second, the child will need a classroom design that allows him independence and inclusion in the classroom. One design solution I have seen work well in a situation similar to this is to place the child's desk and one other student's desk beside the one-on-one teacher's desk. These can be placed at the edge of the other students' desks and directly beside the meeting area. With this design the assisting teacher can work closely with the child, and the child has a partner like everyone else. The child can maneuver around his desk, the friend's desk, and the teacher's desk, as well as to and from the meeting area, all on his own. In addition, when the child who is blind is not in the classroom, the friend can easily move his/her desk to join another grouping. An older child who has received mobility training or a child with less severe sight loss may be able to manage with significantly less accommodation.

Fine Tunings

Q. *I will have a child who uses a wheelchair in my classroom next year. What design adjustments should I make to help this child feel included in the classroom?*

A. You can help this child in a number of different ways. Place materials and displays at a level that will be easily accessible from the wheelchair. Make sure passageways will accommodate the width of the chair and ask students to sit in chairs at the whole-class meeting area so everyone will be at a similar height. Most important, consult the student, the student's family, and the education team to learn how best to support the student's independence and success in the classroom.

Q. *I teach second grade and have always asked students to copy homework assignments, spelling words, and math problems from the blackboard. I recently learned that not only is this physically impossible for many children until at least the age of eight, but it can also be harmful to the development of children's eyes. Can you tell me more about this and what I can do instead?*

A. According to research on children’s vision done by Dr. Arnold Gesell, Dr. Frances L. Ilg, and Glenna E. Bullis (*Vision: Its Development in Infant & Child*. Santa Ana, CA: Optometric Extension Program Foundation, 1998), the muscles of the human eye are not fully developed until around the age of eight. Until then, these muscles are not capable of making the shifts from far-to-near and near-to-far that copying from a blackboard, chart stand, or wall demands. Asking children to make these shifts can actually do harm to the developing eye muscles.

However, children eight and under can copy from a sheet of paper laid next to the paper they’re copying onto. This kind of “side-by-side” copying does not require a visual shift and will not hurt their eyes.

Children can also do side-by-side copying from a small chalkboard or a small dry erase board that’s set down flat next to their paper. You might want to make several “originals” which children can then share to complete copying assignments.

Finally, I’ve seen teachers who have “word walls” address this issue by attaching the word cards to the wall with Velcro, pushpins, or hooks. Students can then easily remove the words for side-by-side copying. Another option is to create two or three additional sets of words, alphabetically organized and stored near the word wall, which students can use for copying.

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