Number Concepts and Patterns

Important number concepts and patterns include few/many; some/none; more/less; pair; zero; all; one-to-one correspondence; first/second/third; last; and counting to ten.

Play with objects in a six-muffin tin. Find and take out one or two. Guide the child’s hand to learn how to use one hand as a placeholder and the other hand to place an object in the hole. This reinforces one-to-one correspondence when one object is put into each hole. This will help the child imitate patterns later on.

Larger pegboard play is great for beginning number relationships. Let the child play creatively and later introduce number concepts. Older infants and young toddlers will enjoy positioning large pegs and blocks to create things.

Older toddlers may be ready to imitate patterns of pegs on a board or large shaped beads on a string. Create rows of tape or Velcro strips with blocks or shapes. Again, as with sorting and matching games, begin with two and increase to three or four.

Motor Skills

Practice doing movements with words to describe them. Also, talk to the child about what he/she is doing so the words have meaning at natural times of the day. Important movement concepts include go; start/stop; fast/slow; push/pull; scribble; draw; trace; bend; open/closed; slide; roll; hold; insert/place/put; reach; sit; squeeze; turn; and follow.

Good head control and independent sitting are important to read Braille with ease. Reaching for an object based on sound or visual cues or on command is also important.

Guide the child to develop a systematic approach to searching for an object within reach to develop good skills for later exploration of pages and manipulation of books.

Fine motor skills that are important for eventual reading include grasp/release; twist/turn; rotate and examine; open/close; stack; nest, etc. Busy boxes and nesting or stacking toys are good for developing these skills.
Braille in Everyday Life

✓ Encourage “scribbling.” It’s fun and important. Allow toddlers to “scribble” with a Braillewriter or slate and stylus (with supervision). Plastic sheets from bacon packages, when thoroughly washed, work great for Braille.

✓ Share with your toddler what you are writing - grocery lists, notes to friends, etc.

✓ Braille notes for toddlers to take to family members and have them read aloud.

✓ Leave Braille “love notes” under the toddler’s pillow or in his lunch box; include print so anyone can help the child read it.

✓ Take the toddler’s hand to experience Braille in the community on signs, elevators, and Braille menus. Remember, sighted infants have been seeing print in their world from a very early age.

✓ Get a Braille labeler or a slate with slits for dymotape for labeling. Label the child’s belongings with his name (diaper bag, cup, lunch box, snacks, etc.) Label areas of the home, familiar objects, and toys with Braille. Label the numbers on a toy telephone or animal names on a See’N Say, for example.

Communication Skills

Babies are like sponges - they absorb information. Use words to name and request and eventually the baby will, too. Guide infants and toddlers to use words to name and request, and to follow simple directions. Help them listen to a short story with objects as props and to explore tactual books and turn pages.

Dexterity

Further refinement in motor skills can be encouraged by putting objects into and taking them out of containers of all sizes and by playing with manipulatives, such as finger foods in containers; shape sorters; pop beads; linking chains; large pegs; form boards and simple puzzles; and blocks. Important skills for dexterity include pincer grasp; poke/probe objects; spreading/wriggling fingers; pointing; isolating each finger, relaxed curving of fingers wrist flexibility; and tracking a raised line by touch.

Concrete to Abstract

Braille is a system of symbolic representation of real objects and experiences, just as print is for the sighted reader. Infants and toddlers learn best at a concrete, hands on level. Touching experiences with objects and people are critical. Begin by describing what he is doing when he is playing with a toy: “Tyrone is banging blocks.” Talk out loud about what you are doing, too.

The next step is to use an object as a reminder or to prepare for a transition in activity, such as a key to go for a car ride. For example, let the baby hold the keys as you prepare to leave (and only at that time). The next step is to use the same or similar objects to talk about a past or future experience. This way, you see, it becomes a symbol.

Then make a book with object symbols to tell a pretend story about someone else. At this time, add a raised drawing to represent the object and match it, as well as a Braille label next to it. Then the connection can be made between the real object and the Braille word. Sighted children go through a similar progression with pictures as symbolic representations.

Match real objects to things that go together or outlines of them. Trace familiar, real objects to make puzzles out of them.

Literature Rich Experiences

✓ Create a box or bag with items associated with a familiar routine. Write a story on an index card about taking a bath, visiting Grandma, or going to a restaurant. Include objects associated with that experience - a story in a box or bag!

✓ Clap and bounce with rhymes, finger plays, and songs; pause before the last word of a familiar rhyme to let the child anticipate and fill it in.

✓ Keep textured books, cloth and cardboard books, Braille books, and sound books available for your child on a low shelf where she can find them herself.

✓ Go to the library for story hour to hear richly read stories. There are usually hands-on activities associated with these.

✓ Practice turning pages together. Reinforce this by slipping treats, leaves, or pieces of fabric to find between the pages.

✓ Adapt print books by placing Braille above or below the lines of print.

✓ Make books meaningful by gluing an object on the front to match the story, or tie an object on it with a ribbon.

Reading from Left to Right

✓ Play at making rows of large pegs in a peg board from left to right.

✓ Roll a car or rolling toy on a table from left to right.

✓ Play at following the track with wooden sticks, sandpaper strips, lines of glue, and Brailled materials (with and without spaces).

✓ Glue objects to a strip and have the child move from left to right to discover and talk about each.

✓ Place objects in a 12-muffin tin; have the child identify the objects, moving from left to right across each row.

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Children who are blind often need help learning the social skills and strategies that allow them to fit in with their peers. Some of these skills are ones that sighted children learn through visual information and feedback, without any direct instruction from others. Others are special techniques that a blind individual needs to use to get information that is otherwise conveyed visually. Without these skills, your student may find it difficult to experience the joys of friendship and the challenges of participation.

You can help your student by observing his/her behaviors in the classroom, and identifying any behaviors that need to be learned. The standard for performance is to have your student match the behaviors of his classmates. For example, if your student is in first grade, and all the first graders return from playground with their clothes in disarray, then keeping clothing neat all day is not an important skill at this time. However, if your student is in sixth grade, and all the other kids have become very particular about their appearance, then keeping hair and clothing neat throughout the day is an important social behavior that helps your child fit into the group. Sometimes, your student will just need some verbal input to let him know what is considered appropriate. At other times, your child may need help and direction to learn a specific skill.

When teaching social skills, remember that the goal is to help your student to fit in with his/her peers. Therefore, any discussion or instruction with your student should be done discreetly, without interfering with classroom instructional activities. Non-verbal cues may be helpful to remind the child to use a new skill without drawing the attention of his classmates. For example, if the desired behavior is to sit erect and face the teacher during lessons, you and your student might decide that you will tap him on the shoulder to remind him to do so during class. This will not advertise the correction to his peers or distract anyone’s attention.

There may be some skills that you know would be helpful to your child, but that you feel are impractical or inappropriate to teach in school. It is recommended that these be discussed with the classroom teacher and vision consultant to determine a course of action.
The checklist that follows is one way you can keep an eye on the on-going development of your student’s social skills, and it provides a sample listing of social skills that are impacted by blindness. In no way is it complete, nor is it the only such checklist. If you choose to use it, first go through and check off those skills which your child already has.

- Select one or two of the unmastered skills that seem to be most important to work on, and make a plan to include them in your daily instruction.

- Discuss your selection and plan with your classroom teacher and vision consultant, so that all staff members agree and can work together.

- Once everyone has agreed, talk it over with your student, and teach him the strategies you wish him to use (listen to his opinions, too!).

- Set a time to periodically review your student’s progress, such as at the end of each marking period, and set new goals as appropriate.

**Self-Care Skills:**
- Cleans face and hands appropriately after eating.
- Eats neatly and politely in cafeteria.
- Keeps clothing neat throughout day.
- Uses tissues appropriately (keeps supplies accessible, disposes of tissues, etc.)
- Is oriented to the bathroom.

**Use of Body Language:**
- Aligns face to speaker or activity (“looks” at speaker).
- Uses appropriate facial expressions.
- Sits or stands erect, with head held up.
- Sits in postures appropriate to the setting (casual position with friends, formal position with elders, superiors, or on formal occasions)
- Uses correct hand gestures at appropriate times (waves hello and good-by, shakes hands firmly, etc.)
- Raises hand in class before speaking.
- Holds hands at rest in appropriate positions during conversations or activities.

**Strategies for Group Interaction:**
- Greets others upon entering a room or group.
- Uses appropriate techniques to find out who else is present, or what activity is going on, when entering a new situation.
- Gains needed information politely (“Where should I sit?”) when appropriate.
- Attends to group instructions or conversations; does not wait for individual attention or directions.
- Takes the initiative to participate; does not wait for others to direct or assist during group activities.
- Is aware of choices and tries a variety of activities.
Student's Computer Abilities

The page suggests abilities or skills that students should be working on at various grade levels.

Kindergarten:
- Alphabet knowledge (pre-braille skills)
- Motor planning development
- Fine motor development - hand concepts, strength
- Social skills
- Ability to ask questions
- Orientation / directionality
- Safe movement
- Visual skill development
- Eye-hand coordination skills
- Listening skills
- Cause and effect

First through third grade:
- Learning to read (braille)
  - Focus on tactile Braille reading not Braille in - auditory out!
- Learning to write (braille)
- Using a braille writer
- More motor planning
- More fine motor development
- Method of getting more immediate feedback from print or braille materials
- Method of producing print
- Expanded orientation; safe movement around several rooms
- Beginning use of low vision aids (magnifiers, telescopes), continuing throughout school

by Jim Allan and Jay Stiteley
• Minimize amount of use and time of auditory letter recognition
• Tracking skills
• Correlation between mobility skills and ability to navigate on the screen
• Exploration of keyboard - Arrow keys, return, on/off, pieces parts. Home row, #.
• Beginning touch typing
• Low vision students - mouse, CCTV,
• Care and Feeding - proper behavior around technology, care for the equipment

Fourth through Sixth grades
• Completion of Braille to print conversion for immediate feedback
• Touch typing continues
• Slate and stylus use
• Continued writing on a Braille writer
• More print production
• Portable note taking or assignment writing system
• Electronic Braille production
• Better orientation and mobility skills
• Introduction to hand printing or cursive writing (for Braille students)
• Exploration of and introduction to the types of computers used in the junior high school computer literacy course
• Use of tape player/recorder for textbooks, leisure reading, and note-taking, sources, RFB&D, TSL etc.
• On going tech assessment
• Begin trouble shooting computer/equipment problems
• Care and feeding, maintenance of technology/Aids/prosthesis (Eye care - personal hygiene)
• Personal control of environmental adaptations
• Aware of their own visual condition - no concept of how others see, how much you can see, need to communicate the information to the teacher and/or others, and how it relates to using technology
• Begin telecommunications, e-mail, research/library skills
• CD-ROM, Multimedia
• Scanner - introduction
• Access system instruction
• Tape books/disks use,

Seventh and Eighth grade:
• Independent electronic print production, including cable interfacing
• Signature writing
• Note taking in an organized fashion
• Access to the computer literacy course
• Introduction to speech and/or large print access system for the type of computer systems used by the high school
• Ordering necessary large print, Braille, or audio books
• Expand telecommunication skills
• Scanner - Mastery
• Contact Technical Support for various devices, software
• Information sources for new Technology - informed consumerism
• Exposed to new technology
• Independent learning
• Leisure Activities
  • Games
  • Drawing
  • Internet

Ninth through Twelfth grades:
• Efficient, independent note taking using various methods.
• Assignment generation to print for teachers
• Efficient and independent production of student created print/Braille materials for proofreading purposes
• Learning a speech and/or large print access system for homework production
• Learning of a word processing program with the access system.
• Identify the courses the student wishes to take that requires a computer and determine if the speech and/or large print access program will meet the need, or will new features need to be learned. Such as spreadsheet or database programs.
• Required computer courses for graduation from high school
• Knowledge of the variety of access available, and sources of information
• Advanced telecommunication skills
Creating Tactile Books

Prepared by: Anna Swenson
Date: December 2003

Bookmaking is one of the most satisfying literacy experiences an adult can share with a child. The process of creating a book promotes oral language and fine motor skills, while developing many important literary concepts.

Guidelines for creating books:

• Let the child help to choose the topic.

• Spend lots of time talking about the subject before writing.

• When making tactile pictures, keep them as simple as possible, and let your child help with cutting, stapling, and gluing. Use a diagonal strip of film for a slide or a piece of fur for a cat; complex details are usually not necessary. Be sure your child has had experience with the real object so that these simple representations will be meaningful. Invest in a small hot glue gun for attaching heavier objects to book pages.

• If your child has useful residual vision, she may enjoy drawing and coloring pictures for her books. Even if your child does not have any vision, she may still enjoy coloring. Anti-roll crayons (see Sources of Adapted Materials) have a flat side that can easily be labeled with a color word in braille. A screen board (a piece of window screen securely fastened with duct tape to a stiff sheet of cardboard) can be used under the paper your child is coloring on; the texture of the screen will come through and add tactile feedback to the crayon marks.
• Compose words and sentences together with your child.

• Verbalize sounds and words as you write on the braillewriter.

• Let your child write a "word" or a "sentence" below yours by pressing random keys on the brailler. Or, if he already knows some words or letters, he may want to help you write the text.

• When all of the pages are finished, decide on the order together and number them in braille.

• Cut a front and back cover of appropriate size and bind the book with rings, staples, or plastic comb binding (many schools have machines that will bind student-made books). You might also like to use a thin 3-ring binder to hold the pages, particularly if you may be adding to the book in the future.

Suggested Books to Make with Your Child

Texture book with a cover in the shape of a hand; one texture per page accompanied by a braille word describing the texture. (See attached hand template.)

Counting book made from rectangular posterboard pages with textured shapes and everyday objects: for example, 1 jar lid, two fuzzy triangles, 3 squares, 4 pieces of masking tape, 5 paper fasteners, 6 large paper clips slipped over the top edge of the page, 7 staples, 8 stick-on stars, 9 holes punched with a hole puncher, 10 cuts made along one edge of the page with scissors. Attach the appropriate braille number to each page.

Point book including a fork, toothpick, pushpin, triangle, paper fastener, paper clip, and so forth.

Fastener book made by attaching a textured shape to each page in a different way: staple, glue, paper fastener, metal ring, paper clip, tape, and twist tie.

Experience book focusing on a daily activity such as breakfast or a special event like a trip to the pumpkin patch. Use real objects as pictures when possible (for example, a plastic spoon, napkin, and small plastic bag of cereal for breakfast) or simple textured shapes to represent objects with which the child is familiar (such as a cardboard rectangle with small squares around it to represent the table and chairs). Some children like to include photographs of themselves in experience books to share with sighted family members and friends.

Shape book focusing on a simple shape, such as a circle. Round objects such as lids, buttons, and coins can be hot-glued to each page.

Book About Me which tells about your child! Could include favorite objects, photographs or tactile illustrations of family members (e.g., Grandpa's scratchy sweater), whatever your child wants to share.

In keeping with AFB's mission to achieve quality of access to information for people who are blind or visually impaired, this document is available, upon request, in one more of the following formats: electronic file, braille, large print, and audio recording.