



Using Sandpaper Letters

Materials: Lowercase letters of the alphabet cut out of fine sandpaper and mounted on thick cardboard or wood

- 21 Consonants mounted on pink cards
- 5 Vowels mounted on blue cards (a, e, i, o, u)
- 17 Key phonetic sounds not covered by the alphabet (double letters) mounted on green cards; for American English, these include: ai, ar, au, ch, ee, er, ie, ng, oa, oo, or, ou, oy, qu, sh, th, ue (these vary by dialect/region)
- Sensitizing brush (or, a small dish of cool water and a small cloth; the purpose is to awaken the finger tips)

Set-up: Place your letters in one or two containers (see photo) so that they fit with ample room (not too crowded). Place the sensitizing brush to the left of the boxes and leave space on the shelf for children to set a letter down so they can use two hands to make room for it in the box.

Begin with the Presentation followed on another day by Exercise 1. Repeat Exercise 1 most days until the child can recognize around half to two-thirds of the letters. Then, continue with the other activities based on the child's interest (no particular order for the other activities is necessary). Inspire sandpaper letter work on most days until the child can recognize all of the letter sounds (e.g., if you ask them to find the ssss, they can find it). Then, introduce the movable alphabet.

Presentation: 3-Period Lesson with Two Pink & One Blue

1. Invite the child to a lesson with the sandpaper letters. Go together to the shelf. Say, "These are the sandpaper letters and this is the sensitizing brush. We always start by getting our fingers ready. First, let's wash them." Go together to wash your hands at the sink.
2. Back at the shelf, sensitize your fingers with the sensitizing brush (rub it vigorously on the fingers of your dominant hand; have the child do the same).
3. Carefully demonstrate how to move the letters in the pink/blue box in order to find the one you need. Begin with the first letter of the child's name and then choose two others of great contrast (i.e., that look and sound distinctly different).



4. Demonstrate how to pick up each letter by gently sliding the stack of letters back in their container (push from their base) in order to make space in front of your chosen letter. Then, move your chosen letter slightly forward and lift it without scraping the letter behind it. You don't want the sand to scratch the other letters. They must be treated delicately. Put the letter back down so that the child can pick it up and take it to your work area. Place the letter face down on the right side of the work area.
5. Repeat for all letters, a total of two pinks and one blue.
6. Sit down next to the child's dominant side (the writing side). Usually (in more than 90% of humans) this is the right side.
7. "Which one should we start with?" Ask the child to point to a letter. Turn it over and move it directly in front of the child.
8. Hold up your dominant hand. Use your other hand to fold down your ring and pinky fingers and then fold your thumb on top. You are making a peace sign with your index and middle finger tight together and the other fingers secured down by the thumb.
9. It is traditional to sit on the child's right side and trace the letters with your right hand. Place your left hand on the bottom right corner of the letter to secure it (so it doesn't shift while you trace it). If you are a left-handed and cannot gracefully model a right-handed trace, sit on the child's left side (so your elbow doesn't bump them) and secure the board on the top right with your right hand. Hand dominance is not settled in a child until around age 4 or 5. It is okay if they switch hands. They will find what works for them. If they are uncertain, encourage them to try their right hand.
10. Trace the letter three to five times with your index and middle finger (together as one unit) and say its sound each time. Do not say the letter's name, just its sound. If the child says its name say, "Yes, that letter's name is 'bee'. The sound it makes is 'buh'."
11. Say two or three words that begin with or prominently feature that sound (in any position in the word, not just beginning sounds). For example, say, "Bubble, bat, baby, crab." Encourage the child to join in.
12. Trace the letter again and say its sound.
13. Invite the child to trace and say the sound. Encourage repetition and take another turn yourself to show your enthusiasm for the trace.
14. Put the letter face down on the left side of the work area.
15. Repeat for the remaining two letters.
16. Turn all letters face up and conduct a **3-period lesson**:
 - The first period occurred when you named each letter's sound. Rename the letter's sounds now and point to each one as you say it's sound.
 - Next, in the second period, say a letter's sound and ask the child to find that letter. For example, you might say, "Show me the buh." Keep it lively by varying the action in the second-period (e.g., point to the, trace the, move the, pick up the...). The second period is where most learning takes place. When they are accurate most of the time, add distance to increase the challenge. Leave the letters on the table and move to a different place in the room. Ask the child to bring you a letter sound. Match your challenge to the child's ability; better too easy than too hard. If they make an error, do not correct them. Instead, move back to the first period. For example, if they bring you the buh and you asked for the mmmm just say, "You brought me the buh." Then, walk together back to the table and repeat the first period.
 - When you are 100% sure they know the sound, move on to the third period. Point to a letter and say, "What sound does this make?" This is the final test of their knowledge. It may take a day or weeks before they succeed at the third period. Don't go here too soon.
 - This entire lesson should only take a few minutes. Do not belabor it. Continue for as long as the child is interested; leave them wanting more!
17. Say, "That was fun! You can use these letters anytime you like. We'll do more next time until you know all of the sounds!"

18. Model how to carefully, precisely, and delicately return the letters, one at a time, to their box. Be sure to have a place on the shelf next to the box where the child can place the letter while they use both hands to make a space for it. Then use one hand to maintain the space in the box while the other hand lifts and delicately returns the letter to the box.

Exercise #1: 3-Period Lesson with Pink, Blue, & Green Letters

1. Follow the same steps as in the Presentation but use one or two pink letters, one blue letter, and one green double letter. Always begin by inviting the child, washing your hands/sensitizing your fingers, and then inviting the child to choose three or four letters, at least one pink, one blue, and one green. Continue in this fashion for all future sandpaper letter lessons. (The pink and blue only lesson is exclusively for the first Presentation. All others should have pink, blue, and green.) Proceed with the 3-period lesson.



Note: You do not have to pick the letters for the child. Encourage them to find ones that they do not know. Allow them to self-monitor and learn to evaluate their own understanding. If they choose letters they already know, they may need the repetition to gain confidence. If they obviously know all the sounds, say, “These letters are too easy for you. See if you can find some that you don’t know yet.” If they choose independent work with letters they don’t know, don’t worry. If they are not concentrating, you might say, “Oh I love those letters. May I have a turn?” Then model the trace and say the sound. Then, thank them and let them continue on their own.

Activity #1: Knock-knock

1. Invite two or three children to play a knock-knock game with you. Ask them to get a rug for your work.
2. Begin as in Exercise #1. Then, ask each child to bring three sandpaper letters to the rug (one at a time). They should choose one pink, one blue, and one green letter. You should bring three letters (one at a time) of your choosing as well.
3. Place the letters face down in front of each of you. Say, “I’ll have a turn and then you can have a turn.”
4. Pick one of your letters and knock twice on the back. Say, “Knock, knock.” Tell the children to say, “Who’s there?”
5. Turn your letter over, trace it and simultaneously say its sound. Then say two or three words that feature that sound. Encourage the other children to say words too.
6. Turn your letter over and give the next child a turn.
7. Repeat until everyone has had a few turns. Fade and observe.
8. Say, “That was fun. You can play knock-knock anytime you like. Are you going to get new letters and play again now?”

Activity #2: Trace the table/air

1. Begin as in Exercise #1 but after tracing the letter, move it face up to the left and repeat the trace of the letter’s shape on the table and/or in the air. When finished, put the letter face down to the left as in the Presentation.

Activity #3: Sorting

1. Invite the child to the lesson, ask them to prepare the work rug, then go together to wash your hands and sensitize your fingers. Bring the whole box of sandpaper letters to your rug.

2. At the rug, say, "Choose your favorite one."
3. Take out that letter and trace it. Talk about the letter's shape. Say, "Let's see if we can find another letter that has this same curve." Move the letter to the top left of the rug.
4. Look through the box carefully and find another. Trace the new letter and the first letter and notice the similarities.
5. Continue looking for other letters that share the same feature.

Activity #4: Connections

1. Invite the child to the lesson, ask them to prepare the work rug, then go together to wash your hands and sensitize your fingers. Bring one pink and one blue letter that create a phonetic word (like /a-t/ or /o-f/ or /i-n/, etc.) to your work rug.
2. Place the letters face up on the table. Trace the first letter, trace the second letter, say the first letter's sound, and say the second letter's sound.
3. Give the child a turn and encourage the child to repeat so that they connect the sounds. Don't do it for them, but let them discover the connections. If they don't discover it, that's fine. Try again another day.

Activity #5: Blindfolded trace

1. Invite the child to the lesson, ask them to prepare the work rug, then go together to wash your hands and sensitize your fingers. Ask the child to choose 3 or 4 letters and a blindfold.
2. Place the letters face down on the rug and put on the blindfold.
3. Choose one letter, turn it over, trace it, and see if you can guess its sound.
4. Take off the blindfold to see if you were right!
5. Invite the child to do the rest.

Activity #6: Link to the environment

1. Invite a few children to work together. Ask them to prepare the work rug then go together to wash your hands and sensitize your fingers. Go together with them to the sandpaper letters and say, "Let's each choose one to bring to our rug." Be sure they know they are free to choose pink, blue, or green letters.
2. At the rug, trace your letter and say, "I brought the rrrrrr. What did you bring?" Give everyone a turn to trace their letter and say its sound.
3. Say, "I'm going to see if I can find something in the room that has the rrrrr sound in it." Walk nearby and find something like an eraser and bring it back to the rug.
4. Trace your letter and say, "errrrraserrrr. I wonder if I can find more things! You can try too."
5. Guide everyone to collect as many items as they like and place them with their letter.
6. When everyone is finished, review what you have collected and then guide the children to put each of the items carefully back in its location.

Remedial Lessons

Some children have trouble learning the sounds/shapes of the letters. They may mix up letters that they seemed to know the previous day. They may not be interested in tracing. It could be that they started when they were a little past their sensitive period (a time when they are physiologically driven to trace letter shapes). It could be that they have dyslexia. Or, it could just be that their interests lie elsewhere. In any event, they must still learn the letter shapes/sounds. You will have to practice with them every day (just like brushing their teeth). There are many options for conducting these remedial lessons as shown below. Keep each day's practice light, short, and fun. Repeat at least one letter every day. Choose no more than three letters at a time.

Remedial Lesson #1: Sand tray

1. Same as Exercise #1 but for the struggling child, have them trace the sandpaper letter and then draw its shape in a sand tray (you can also use shaving cream, putty, a paint bag, etc.).

Remedial Lesson #2: Small group

1. Invite a few children to the lesson, ask them to prepare the work rug, then go together to wash your hands and sensitize your fingers. All students must have received presentations on all of the letter sounds. Go together to the rug and bring all sandpaper letters (in their boxes) to the rug.
2. Have the least capable child choose a letter. Then, in order of least to most capable, have the other children choose a letter. Then, ask each child to take a turn tracing and saying their letter's sound.

Remedial Lesson #3: Cued distance displays

1. Use small wooden easels to display some letters in contextually related areas around the room. For example, display the 't' in front of a sculpture of a turtle; display the 'f' next to a vase of fresh flowers.
2. Play bring me games, helping the child associate the sound with its nearby cue. Say something like, "The 'rrr' is near the rrrrugs." Keep the letters in these locations for 1-2 weeks or until the child has mastered them. Then, locate a new batch of letters similarly around the room.

Remedial Lesson #4: Mystery bag with letters

1. Prepare a special mystery bag so it contains several sturdy (not thin plastic) cut-out movable alphabet letters of distinct shape.
2. Show children all the letters first, name their sounds, and place them in the bag.
3. Guide the child to reach in and guess which letter they have before taking it out to verify.

Control of Error:

- The sensation of sandpaper under the fingers controls error. (If the child's fingers slip off the sandpaper, the child immediately receives a different feeling from the surface.)

Accommodations:

- For the 5-year-old or older child who is just beginning to learn letter sounds, require daily practice with the letters and encourage small group games (like knock-knock). Use the remedial lessons if needed.
- If a child has tactile defensiveness (finds the letters acutely uncomfortable on their fingers when tracing), make your own set of letters using felt instead of sand.

Notes:

- The script/font used should match the dominant one used in the handwriting of the culture. In the case of American English, people handwrite in both print and cursive. There is not a clear dominant script at present. If the culture cannot clearly guide your choice, cursive is the preferred font because it most closely matches the flow of gestures; it is treated differently in the brain than manuscript because the letters are connected. Each word becomes a single unit when it is written in cursive. It is much easier to write because there is no constant need to pick up the pencil and then reorient it. If you inherit print/manuscript letters, make it your top priority to move to cursive.
- Your sandpaper letters must match the font and color of your movable alphabets. They should never include lines or dots on the front or stickers on the back. The child learns the entire visual field as the letter. The lines and dots are a distraction that interfere with the isolation of the stimulus.

- When the child makes a mistake, do not say, “No, that’s a ...”. Instead, just bring the child to the correct letter and repeat its sound and have him trace it. Go back to the first period as often as needed. Don’t correct, just represent.
- Model a light trace on the letters and use whichever hand you are most comfortable with. If you are a lefty, sit on the child’s left side so your arm does not bump/obscure the work. Let them know they can use the hand they prefer (it’s okay if they swap, hand dominance will come on its own time table). Watch them closely when they trace. Step in to re-present often so that they don’t develop bad habits. Say, “There is a special direction that everyone tries to follow when we trace this letter. It goes like this.” Again, don’t correct them, just ask if you can have a turn and draw their attention to the special way you make the trace.
- When you begin handwriting words for the children to read, you must write them in the same font as the sandpaper letters and movable alphabet. When they start reading printed text, the text can always be in print. Most children will fluidly and effortlessly be able to read print even if they receive all the initial preparation in cursive.
- Never use worksheets for tracing or copying letters unless you are an interventionist doing remedial work with an older child. Tracing the letters on the table, the air, sand tray, etc. requires the child to rely on muscle memory to create the letter and that is the key. Worksheets rely on drawing/visual matching; it is a completely different skill and uses different brain areas.