




Material Preparation

MATERIALS

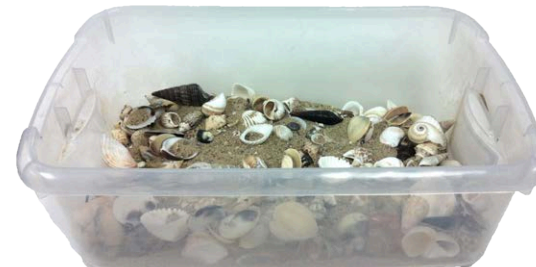
- clear storage bin (about 6 quarts)
- large magnifier
- auger shell ()
- moon snail shell ()
- cockle shell ()
- sand
- assortment of shells of various sizes, colors, shapes and textures
- roll of masking tape
- ECHOS Book: *Busy Beach Day*

For each child:

- ten assorted seashells
- ½ cup of sand
- small (6") bowl
- two small trays, plates or pieces of paper for sorting
- *Ask Me About Shells* sticker

PREPARE IN ADVANCE

- Fill the clear storage bin halfway with sand and add an assortment of shells.
- Prepare one bowl for each child with ½ cup of sand and an assortment of ten shells. Be sure to distribute shells so that each child has large, medium and small shells. Shells may also be distributed to represent other attributes, such as large/small, rough/smooth, shiny/dull, pointy/round and spotted/solid.



SET UP THE LESSON AREA

Use masking tape to make two large squares on the floor.



For each child

OBJECTIVE

Children will sort shells using one attribute at a time.

EXCITE

Gather the children in the ECHOS lesson area by the masking tape squares on the floor. Hide the large magnifier behind your back. **I'd like to show you a special tool.** Reveal the magnifier. **Does anyone know what this tool is called?** Demonstrate how to use it to make an object look bigger, such as a book or your face. **We can use this *magnifier* to see how things look up close. Today we're going to take a close look at shells.**



INTRODUCE

1. **Look at this shell in front of me. What can you tell me about it?** Accept all responses. Discuss other attributes of the shell: rough or smooth; shiny or dull; light or dark; spotted or solid. **Did you know that every kind of shell has a name? This is an *auger shell*.**
2. **We're going to pass around this auger shell and the magnifier. When it's your turn, hold the shell in one hand and the magnifier in the other. Look at the shell carefully, like this. Touch the shell gently like this.** Demonstrate. As the children take turns holding the shell, prompt them to observe it with their eyes and fingers. Ask children to describe the shell. **How does it look? How does it feel?** Accept all responses.
3. Repeat with a ***moon snail shell*** and *cockle* shells.

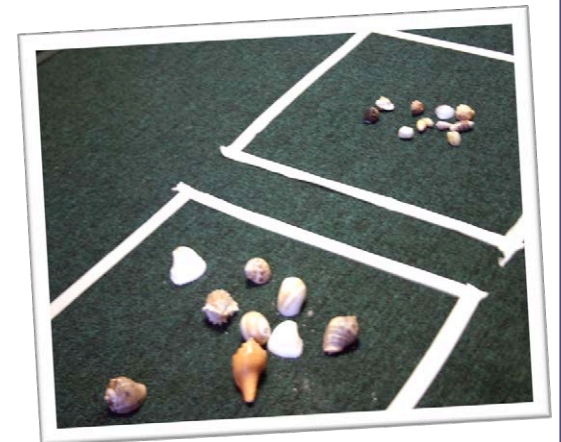


4. **I have a story to read to you.** Hold up the ECHOS book: *Busy Beach Day* to show the cover. **The title of this book is *Busy Beach Day*. It's about two children who go to the beach with their father. I wonder what type of shells they will find at the beach? Let's read and find out.** Read the story to the children.



EXPLORE

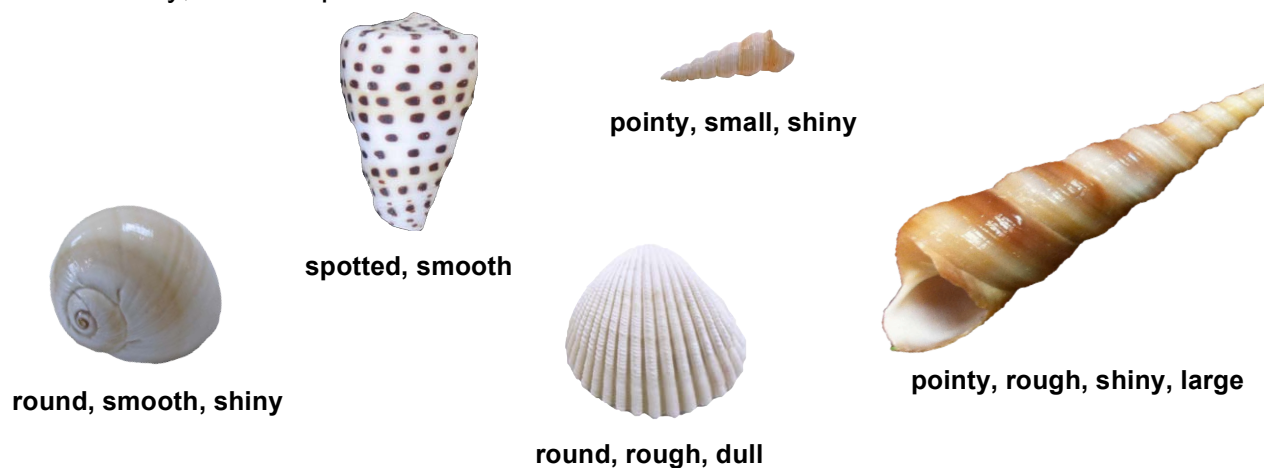
1. Place the book to the side. **Today we're going to go on a beach adventure, just like Kayla and Nick did in the story. I've brought a pretend beach to our classroom.** Show children the clear plastic bin filled with sand and shells.
2. **I wonder what type of shells we will find?** Call one child at a time to feel through the box to find a shell until everyone has had a chance to find one item. Have the children hold the shell they found.
3. **We are going to sort the shells. If you have a large shell, place your shell in this square.** To demonstrate, hold up a larger shell and place it in one of the squares on the floor. **If you have a *small* shell, place your shell in this square.** Hold up a smaller shell and place it in the other square.
4. Allow the children to place the shells in the appropriate square, then ask them to return to the ECHOS lesson area.
5. Point to the square on the floor with the large shells in it. **All the shells in this square are *large*.** Point to the square on the floor with the small shells in it. **All the shells in this other square are *small*.** Collect the shells and return them to the bin.



6. **What is another way we can sort these shells?** Prompt if necessary, but accept all answers. If needed, model the sorting process for the children. Hold up a rough shell and a smooth shell. **This shell is *rough*, and this shell is *smooth*. I could put rough shells here, and smooth shells there.**

7. **Now you can sort the shells any way you want. They could be *shiny* or *dull*, *round* or *pointy*, *spotted* or *solid* or rough or smooth.** Pass out shell bowls and sorting trays. Have the children place the trays in front of them and sort the shells based on their own observations.

8. Conclude the investigation by asking: **How did you sort your shells?** Prompt if necessary, but accept all answers.




INTERACT

Interact to accommodate children's individual needs and strengths. Use these suggested strategies as needed:

- For some children, pronouncing certain sounds may be new. When asking the children, "Can you say auger?" provide wait time to say the word in any way that is comfortable to them. Children ages three to five are still acquiring language skills; please accept all responses as valid effort.
- When discussing attributes of objects, it may be helpful to provide children with various samples of tactile materials. For instance, when describing rough or smooth, have sample materials for each type of texture.



OUTCOMES

1. Regroup the children in the ECHOS lesson area. **What did we learn about today?**
Listen to the children's responses. If needed, use suggested prompts to elicit key concepts and vocabulary. Encourage responses from everyone.
 - **What tool did we use today?**
 - **How did you sort your shells?**
 - **Which shell is your favorite?**
2. Give each child an *Ask Me About Shells* sticker. 

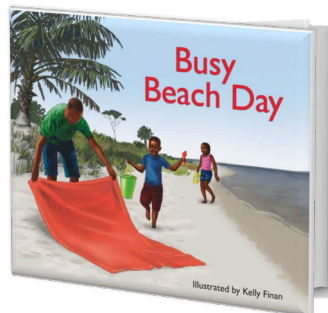
Remind the children to tell their family something they have learned about shells.
3. After you have completed *Lesson #3: Shells on the Beach* with all children in your classroom, add the ECHOS materials suggested below to your science area to encourage exploration.

VOCABULARY

- auger shell
- large/small
- magnifier
- moon snail shell
- pointy/round
- rough/smooth
- shiny/dull



container with shells and sand



ECHOS Book: *Busy Beach Day*



trays for sorting



large magnifier

