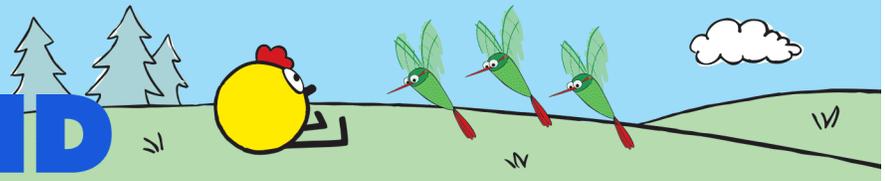


# Explore SOUND



## Teaching Strategies Learning Environments

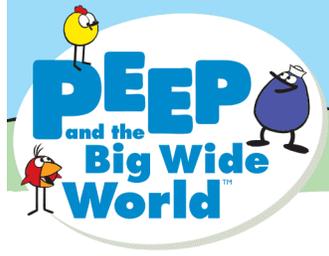
### What Is an Effective Learning Environment?

- **A safe and well-organized learning environment** is full of sensory (visual, tactile, hearing, and kinesthetic) opportunities.
- **It offers children a variety of experiences**, giving them the freedom to explore what captures their attention. It doesn't have to be limited to one learning center or the classroom. It can include all areas of the room, meal times, hand washing, outdoor play and observing the world outside.
- **Traditional learning centers**, like a science center, library corner, block center, or dramatic play area, can be modified or changed so they serve as sound exploration centers.
- **Temporary, flexible spaces** can also be created or transformed as needed—whether they are indoor or outdoor areas. A “science area” may be a table that is used as a rotating exploration center with tubs that are brought out and journals to record observations.
- Learning environments for exploring the science of sound can be used for **specific guided activities** or opened up for **free exploration**.

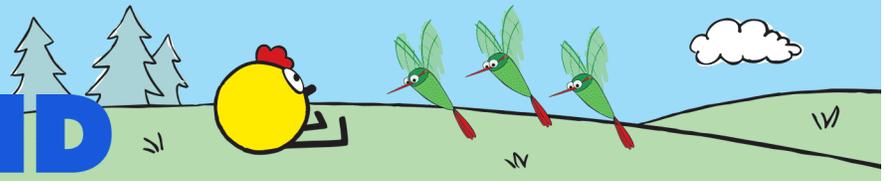
### How does a learning environment encourage science exploration?

- **Science exploration is about direct experience and hands-on investigation.** Learning centers allow children to:
  - explore on their own time and in their own way.
  - look at, touch, and manipulate objects.
  - build their understanding by repeating an activity many times.
- **A variety of different spaces and materials can** contribute to learning, including:
  - open spaces for energetic explorations.
  - quiet spaces for reflection, reading, or alone time.
  - playgrounds for outdoor investigations.





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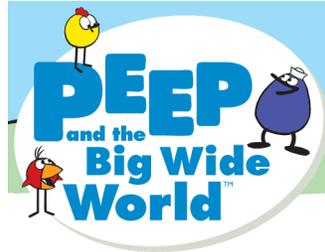
## Teaching Strategy: Planning a Learning Environment

### *Why is planning a learning environment an effective teaching strategy?*

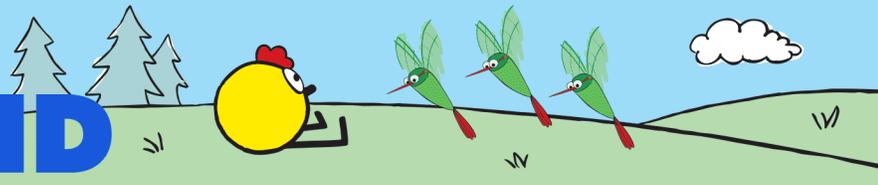
A well-organized, intentionally planned learning environment encourages children to explore with specific materials and learning goals in mind.

- **Modify your permanent learning spaces or create flexible ones.** If your classroom already has a permanent science center, use it as an area to explore sound. If you cannot add a permanent science learning center, modify the learning centers you already have, such as your block, dramatic play, art, and library centers, tailoring them to your science explorations.  
**Example:** If you add instruments to your dramatic play area, children will be encouraged to incorporate music into their play. Add drumsticks or wooden spoons to your block area and the blocks can become drums.
- **Use learning environments for both guided activities and free exploration.** A learning center can double as a setting for an educator-guided activity that focuses on a specific investigation as well as one that offers free exploration.  
**Example:** You might lead a guided activity in which children listen through cardboard or plastic tubes. After the activity, leave the tubes out, so children can revisit these materials and explore on their own.
- **Work with what you have.** Creating a rich learning environment for sound exploration doesn't take a lot of additional materials. After all, sounds are all around us—every inch of your space holds potential for an adventure with sound.





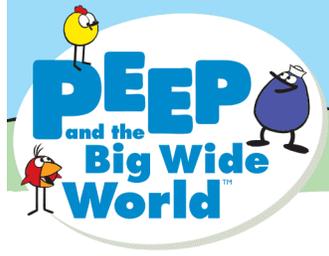
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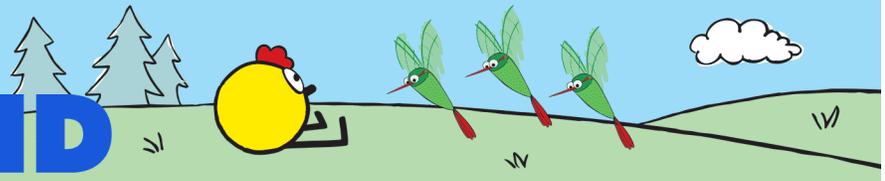
- **Organize the space and materials.** To help you create a dynamic environment for science exploration, ask yourself some questions that will help inform the activities you choose, the spaces you set up, and the materials you make available to children:
  - What experiences do I want children to have?
  - What do I want children to learn about sound?
  - What are their interests, abilities, and cultural backgrounds?
  - Do I want children to be sitting, standing, or both?
  - How much space does the activity require?
  - Is the activity messy?
  - Will the activity work differently indoors and outdoors?
  - What other props will support the children’s learning about sound?
  
- **Place materials in accessible locations.**
  - If materials such as paints, instruments, and found objects are easily reachable, in appropriate containers, and at the right height, children will feel comfortable working and will be drawn to experiment.
  - Simple rules will help them develop a sense of responsibility for the materials.
  
- **Plan for messes—leave materials for cleaning up nearby.**
  - Science can get messy. If children are making instruments using glue and paint, spills are inevitable.
  - Children need the freedom to explore materials in a center with as few restrictions as possible. Planning for mishaps helps eliminate some of the warnings and reprimands that can interfere with a young scientist’s discoveries.
  - Asking children to help in any cleanup can also increase their sense of responsibility.
  
- **Make the most of your outdoor spaces.** Enjoy being outside and listening and observing when you are there. Science is play too!  
**Example:** You might make the whole playground your learning environment as you use sticks to bang on poles and slides and run them along the rungs of a fence.

## Your Experiences





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- What types of permanent indoor learning environments exist in your classroom?
- What is your outdoor space like? What activities seem to work best outdoors?
- What kinds of temporary learning centers have you created—indoors and outdoors?
- Does your space present any challenges? How have you overcome them?

## Teaching Strategy: Offering Choices

### *Why is offering choices an effective teaching strategy?*

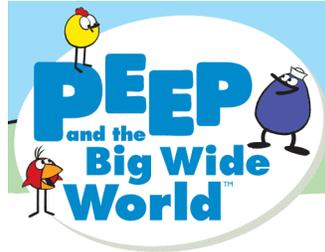
Children appreciate options. Flexibility and choice are key when setting up a learning space. Offer children different and varied experiences, and let them follow their interests. This strategy not only helps address a child's individual needs, but it also helps children to become independent learners.

### Spaces

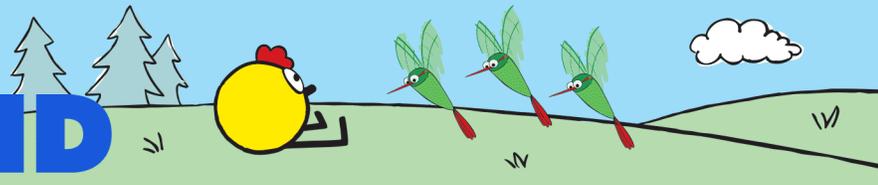
You already have learning centers in your classroom—spaces designed for specific types of exploration. Help children become familiar with what happens there and the different choices available to them. You can use cardboard boxes, rugs, or even chalk to create temporary learning spaces, both indoors and outdoors. Learning areas can also be tables with chairs or just a corner of a room. You can adapt these spaces for learning about sound in a variety of ways:

- **Open space:** This learning area (indoors and outdoors) allows children to move their bodies. Children can play group games like musical chairs and freeze dance, or go on a sound hunt.
- **Water area:** The water table is a great place to experiment with the sound of dripping water, water in a bottle, or bubble blowing.
- **Rug:** This is where children can get comfortable for read-alouds, audio books, and music.
- **Table:** Tables provide a natural location for spreading out and working on sound-related activities.
- **Library area:** In the library area, children can browse through and read more sound-related books.





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- **Art area:** Here children have access to easels, smocks, paper, crayons, markers, and paints as well as found objects to decorate and transform into instruments.
- **Quiet area:** Setting aside a quiet area gives children a place to just sit and listen to the sounds around them.
- **Sensory area:** The sensory area is ideal for hands-on activities using drums, clickers, shakers, rubber bands, corrugated cardboard, squishy substances that make burping sounds, and other cool noisemakers.
- **Display area:** Use a bulletin board, wall, and/or table to display art, charts, and works in progress, such as homemade instruments.

## Materials

Offer a choice of stimulating and interesting materials. Different types of materials encourage different types of exploration.

- **To experiment with sound,** you can create a station where children make sounds with instruments and another where they make sounds with found objects. They may naturally gravitate to one station or the other. After they've explored both, you'll have the opportunity for a discussion about how the things around us can sound a lot like the instruments we hear in music.
- **For an instrument-making station,** be creative in the types of things you set out. Metal spoons make a great sound, as do corrugated cardboard, a bottle full of water, a rubber band, rice in a sealable bag, and a coffee tin.
- **Remember to be selective, however**—too much choice can be overwhelming for young children.

**Example:** If your learning center focuses on creating rhythms, just set out a few things to serve as drums. Remove bells and horns for the day to help children concentrate on percussion that day. You can add variety by adding or taking away materials on different days.

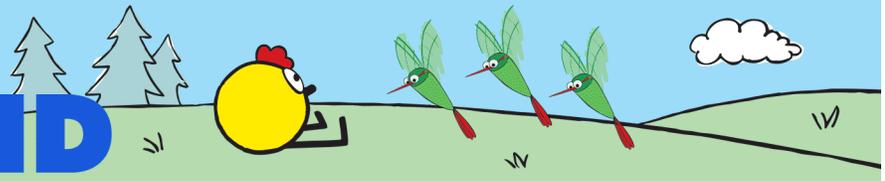
## Your Experiences

- What types of learning centers have been most effective in your setting?
- What have you done with your space to make it varied and to stimulate the curiosity of children with different interests and abilities?
- What simple materials have you used to define spaces (e.g., a beach towel or piece of cardboard)?





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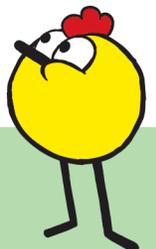
## Teaching Strategy: Encouraging Exploration Throughout the Day

### *Why is encouraging exploration an effective teaching strategy?*

- Science is all about investigation and discovery; it's hands-on and requires that children learn through experimentation and trial-and-error.
- As you explore sound, make sure some of your learning environments support open-ended exploration, so children can follow their own interests, explore further, and make new discoveries. (At other times, you can use this same learning center as the setting for a guided activity focused on a specific investigation.)

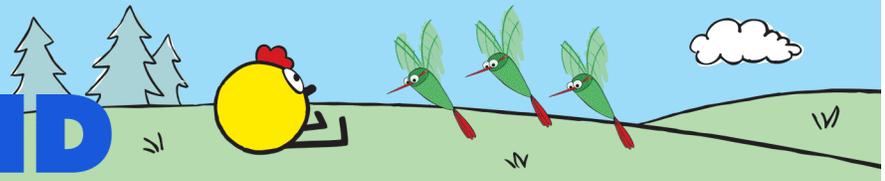
### *The following strategies will help encourage learning everywhere:*

- **Allow lots of free exploration.** This may lead children down new and perhaps unexpected paths, and help them become invested in learning about sounds.  
**Example:** You may have a learning center where children use an audio recorder to record the sounds they can make with their bodies. One child may decide to make up a song or record him or herself telling a story about sound.
- **Follow children's lead.** Science exploration works best when you are following children's interests and addressing their questions—that guarantees they'll be engaged and motivated. They will also become more confident in their abilities, and develop leadership skills and independence.  
**Example:** If children are arriving for the day and one child comes in talking about a dog that he heard barking on the way to school, you might devote some time to reading a book and singing a song about animal sounds. If time allows, make a quick chart to show children's favorite animal sounds.
- **Integrate sound learning throughout the day.** Everyday routines offer an easy way to introduce sounds.  
**Example:** As children line up, encourage them to be as quiet as they can so they can listen for the sounds in the room. When children talk during morning meeting or circle time, have them put their hands on their throat and notice the vibrations.





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- **Use the whole space as a palette for learning.** Even the walls, doors, and floors around you offer opportunities for learning about sound.  
**Example:** Try sound explorations that center on the room children are in. Can they hear an echo in the room? What do their footsteps sound like on a rug? What do they sound like on a tile floor?

## Your Experiences

- Can you share a time when you followed a child's lead and a spontaneous learning moment occurred?
- In what surprising places have learning moments happened in your program?
- How do you encourage learning and discovery during your daily routines—while taking a walk, for example, or preparing for lunch?

## Additional Resources

### *For more information on learning environments*

There are additional Teaching Strategy PDFs on the PEEP Web site along with instructional videos. These illustrate learning environments related to the other PEEP science units: Plants, Water, Shadows, Ramps, and Color.

### *For more videos and information on other topics*

In addition, the Web site offers Teaching Strategies and videos on other professional development topics: Documentation and Reflection, Individualized Instruction, and Science Talk.

