**Supporting the Scientific Thinking and Inquiry of Toddlers and Preschoolers through Play**

**Introduction**

 Many teachers recognize the importance of play in learning but struggle with how play activities connect with content knowledge and how they should support children’s learning through play. Play provides a great deal of opportunities for children to learn science concepts such as the diversity and interdependence of life, relationships between force and motion, and the structure of matter. This article offers explanations of how teachers can create opportunities for young children to expand their understanding of scientific concepts during play.

**Functional Play**

 On a summer day, a teacher noticed the children had found a cicada shell. The children played with the shell and discovered the shell had texture. The children quickly learned the shell could be smashed in their hands. Playing with the shell lead the children to ask if the shell was alive or dead? Instead of answering the question directly, the teacher responded by asking them questions such as: Can it eat? Does it move? Dose it grow? The children checked books out of the library about cicadas.

**Symbolic Play**

The children continued to learn about cicadas. They painted and drew pictures of cicada nymphs, their shells, and adult cicadas. They pretended to be scientists and searched for more cicadas during outside playtime.

**Organizing games with rules and roles**

 The older children began making games out of finding different types of cicadas in different life stages. The children kept track of the number of bugs they caught in each stage and kept score.

**Conclusion**

 Play offers a context for children to engage in elements of scientific questioning. Children use their everyday understanding to make sense of their play experiences. The key to any high-quality teaching is to gear activities toward the children’s progress and understanding of the world. Play helps children understand their world however, teachers must understand the usefulness for different materials, understand the child’s thinking, and the child’s potential for learning in the play context.

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