

STUPENDOUS SCIENCE FOR PRESCHOOLERS

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WHAT'S MY RULE?

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Why Science for Young Children

- Children are curious
- Children do science inquiry
- Children develop explanatory theories
- Science provides experience with important events and ideas
- Science provides an environment for thinking, talking, representing and applying mathematical ideas
- Science engages *a//* children

<http://cse.edc.org/>

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Science in the Early Childhood Classroom

A Shift in Emphasis

Less emphasis on



More emphasis on



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WHAT IS SCIENCE?

- Review the handout from the Maryland Early Learning Standards.
- What do you notice about the Skills, Knowledge and Behaviors (SKB) for this domain?



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WHAT IS INQUIRY?

- Inquiry-based learning is a **constructivist** approach, in which students have **ownership** of their learning. It starts with **exploration** and **questioning** and leads to **investigation** into a **worthy question, issue, problem or idea**.
- It involves **asking questions, gathering and analyzing information, generating solutions, making decisions, justifying conclusions and taking action**.

BASED ON DEFINITIONS FROM [SHARON FRIESEN AND WWW.GALILEO.ORG/INQUIRY-WHAT.HTML](http://SHARON.FRIESEN.AND.WWW.GALILEO.ORG/INQUIRY-WHAT.HTML)

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SCIENCE STATION INVESTIGATIONS

- Use the *Science Station Investigations* recording sheet as you respond to the questions at each station.
- Rotate through 5 stations.
- Find directions at each station.



SCIENTIFIC INVESTIGATIONS: DISCUSSION

- At tables, each person shares one highlight.
- As a group, discuss:
 - In what ways did the investigations affect your understandings of science and science teaching?
 - What surprised you as you worked?
 - What are some ways you can apply the experiences you had?

WHAT IS INQUIRY-BASED LEARNING?

“It is an approach to learning that involves a process of exploring the natural or material world, that leads to asking questions and making discoveries in the search for new understanding.”

National science foundation, 2001

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Find the slides and handouts here:

http://innovationsed.com/science_workshop

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