

What's the BIG Idea?™

Incorporating activities and materials from What's the BIG Idea™ will help you:

- Get children excited about math and science
- Contribute to children's school readiness
- Use hands-on activities to make books come alive
- Increase the number of children attending your programs
- Meet national and local education standards
- Help children make sense of the world around them
- Have fun!

Make Your Story Hour Come Alive with
Math & Science Activities
for Children and Families





Why should this learning take place in the library?

- **Libraries are Community Centers and resources for all types of programming**
- **WTBI involves books, discussion and hands-on activities—all elements of typical library programming**

What is STEM learning?

**STEM learning is
Science
Technology
Engineering and
Mathematics learning**

The National Science Foundation is charged with promoting the vitality of the nation's STEM education. NSF specifically invests resources in STEM learning for people of all ages in both formal and informal settings.

NSF supports innovation in anywhere, anytime, lifelong learning outside formal school settings.

Young children are naturally curious.

They:

- **make observations**
- **predict and estimate**
- **ask questions**
- **count**
- **sort**
- **find patterns**

In short, children already use the skills and processes of scientists and mathematicians.

Why not build on this natural curiosity with intentional science and math activities?

Why Standards?

Education standards help librarians and other educators bring focus and intention to their work with children.

Standards answer these questions:

- **What should children learn?**
- **When should they learn it?**
- **What outcomes can be expected?**

Process Skills of Science

Asking Scientific Questions

Collecting and Using Data

Communicating Information and Ideas

Designing and Making Models

Estimating and Predicting

Experimenting

Finding Patterns

Measuring

Noticing Change Over Time

Observing

Recognizing Relationships

Sorting and Classifying

Using Simple Tools of Science



The BIG Ideas of Math and Science Learning for Preschool Children

More Than Counting:
Numbers and Operations

Patterns and Relationships:
Finding Patterns
Recognizing Relationships
Change Over Time: Growth
Change Over Time: Weather

Shapes and Spaces:
Geometry for Young Children
Exploring Shapes
Spaces and Places
Building and Construction



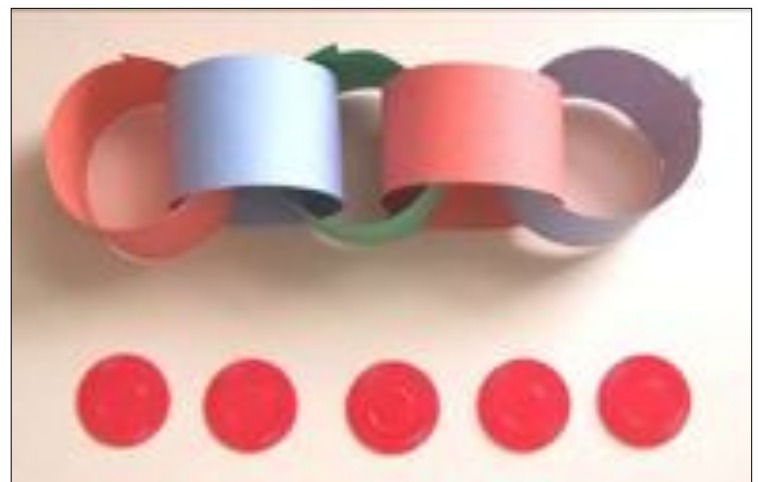
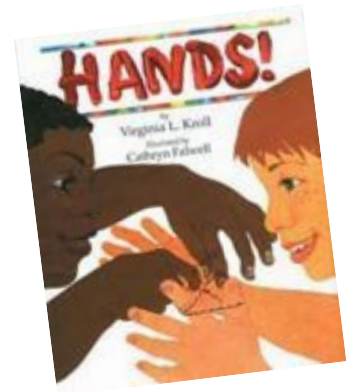
More Than Counting: Numbers and Operations

Make a Counting Book

Make a Number Creature

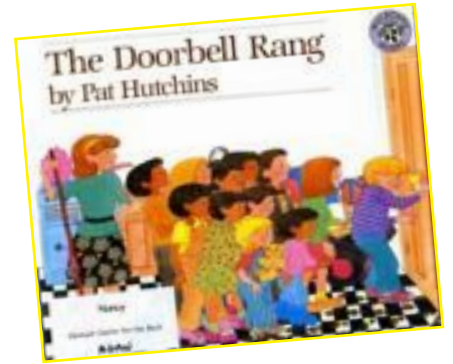
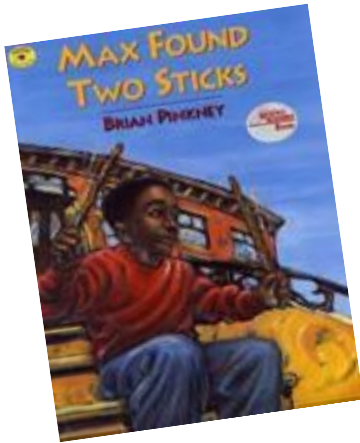
Make a Number Chain

...and much more





Patterns



Visual Patterns

Language Patterns

Sound Patterns

Clapping Patterns

Movement Patterns



Blue, yellow, blue, yellow, blue, yellow, blue, yellow...what comes next?



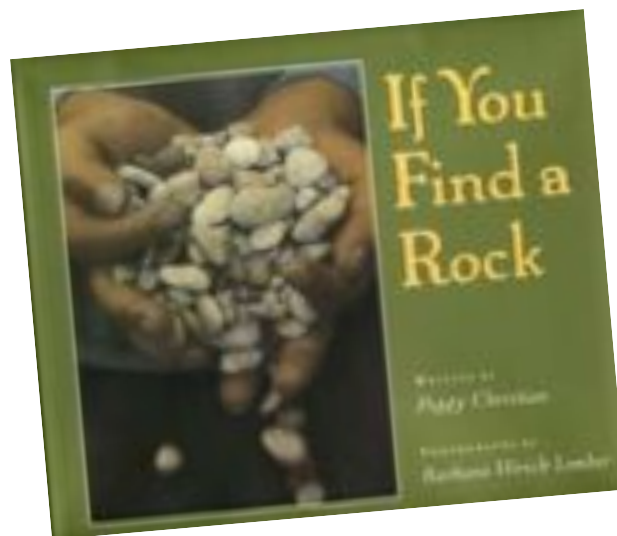
Red, green, green, red, green, green, red, green...what comes next?



Green, orange, yellow, green, orange, yellow, green, orange...what comes next?

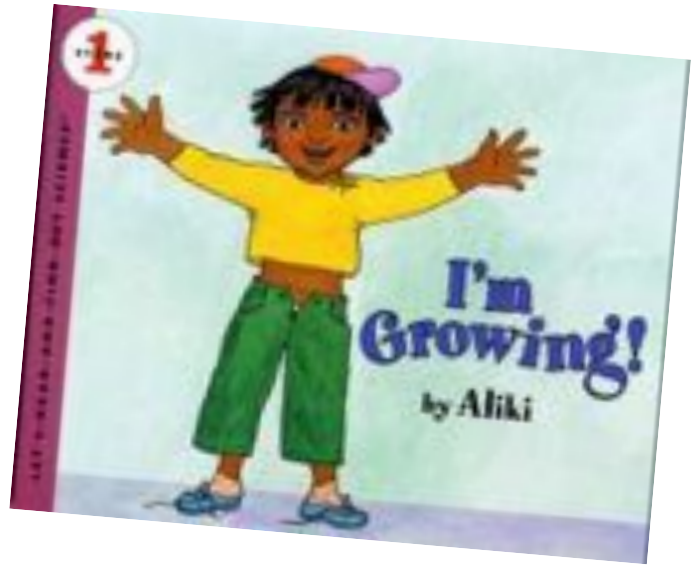
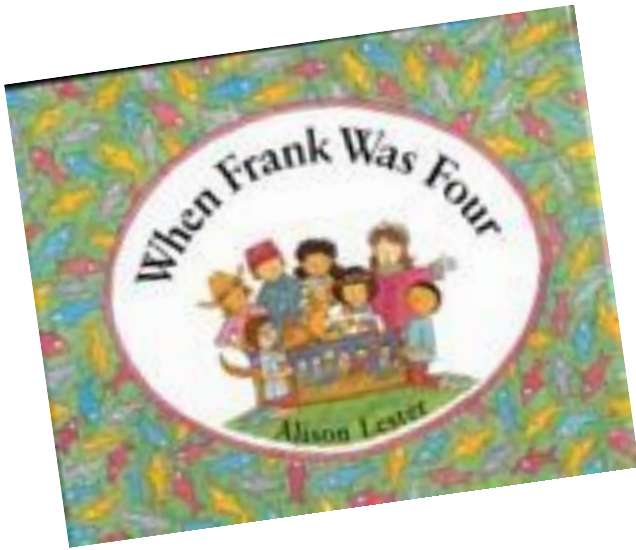


Recognizing Relationships: Same and Different



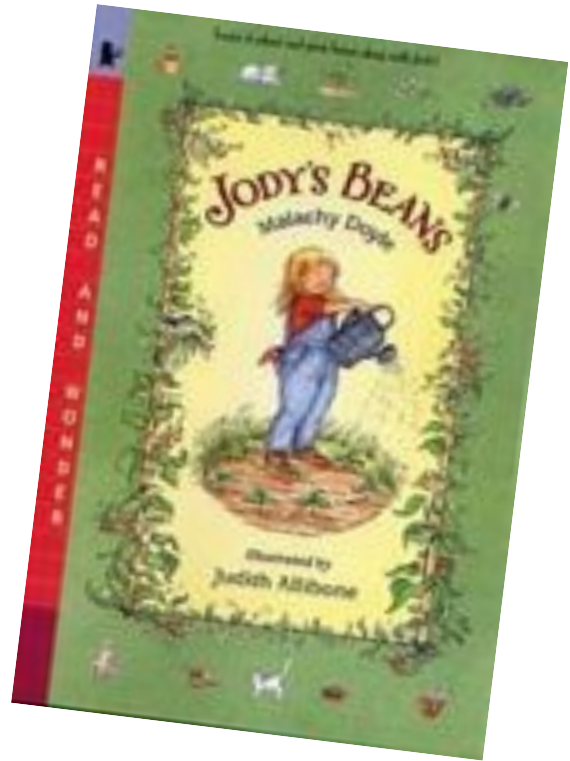


Change Over Time: Growth



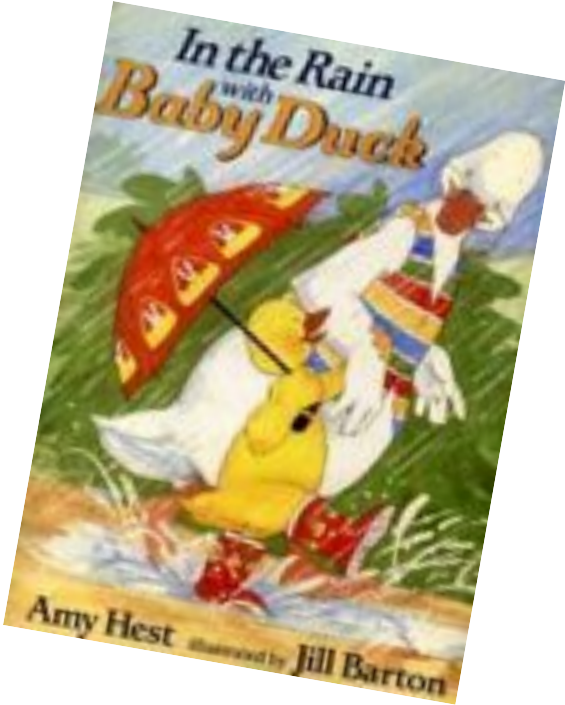


Change Over Time: Growth



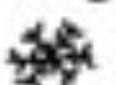


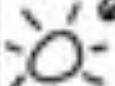
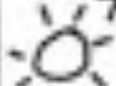




Change Over Time: Weather



MARCH

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4 	5 	6 	7 	8	9	10

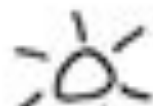
weather symbols



cloudy



rainy

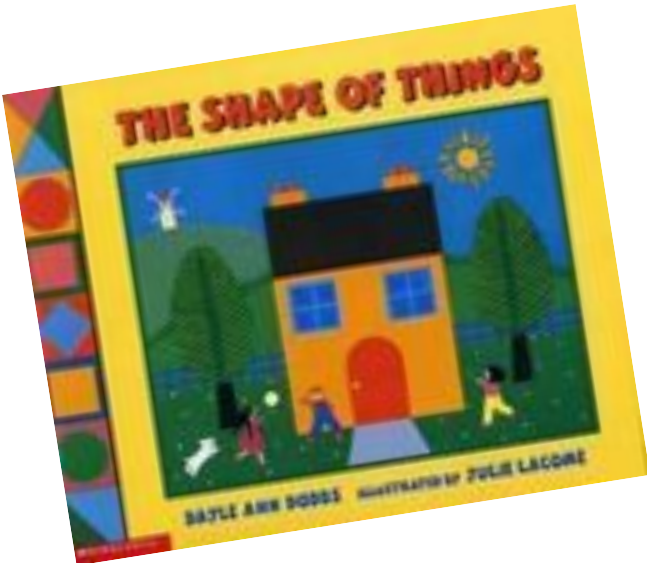


sunny



snowy

Shapes





Sorting Shapes



Combining Shapes

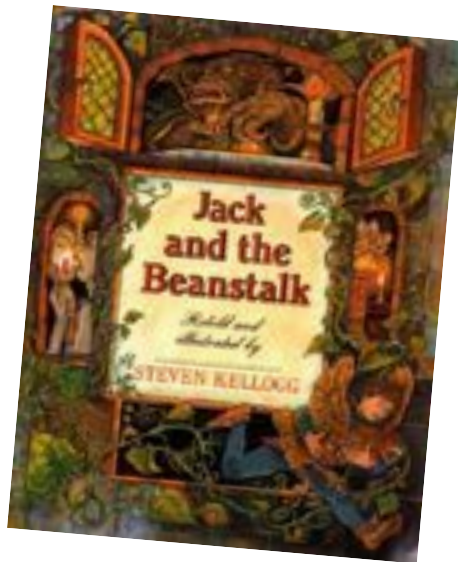
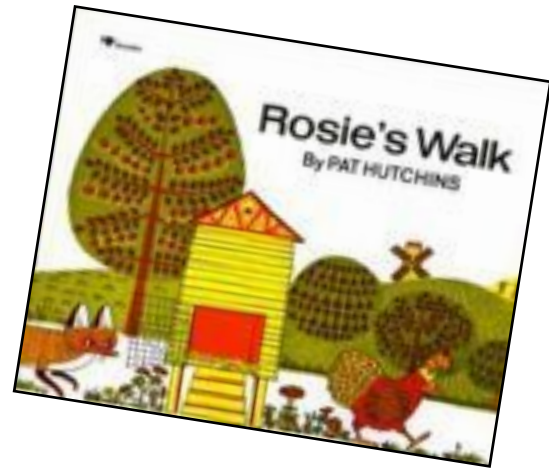


**Make a
Circle Collage**



**Making
Shape Designs**

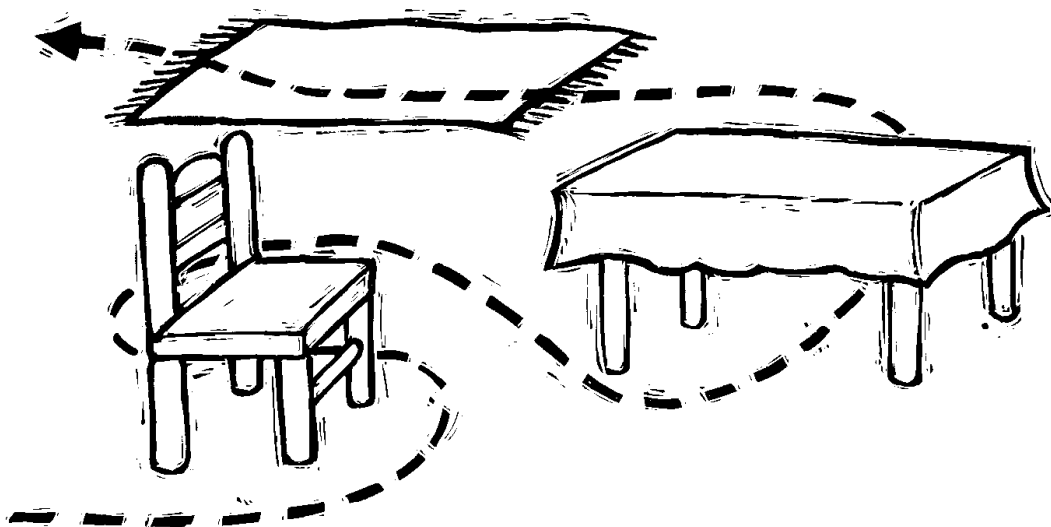
Spaces and Places



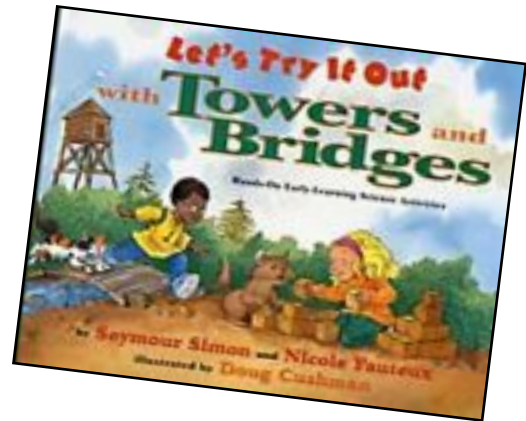
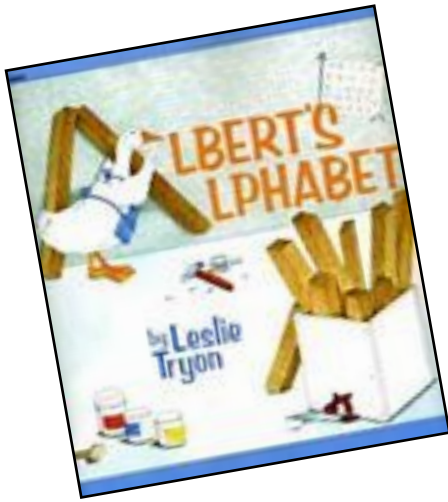
Spaces and Places: Spatial Thinking

Locational and Directional Words

on, off
on top of / under
top / bottom
in front of / behind
next to / between
up / down
forward / backward / sideways
around / through
near / far
close to / far from



Building and Construction



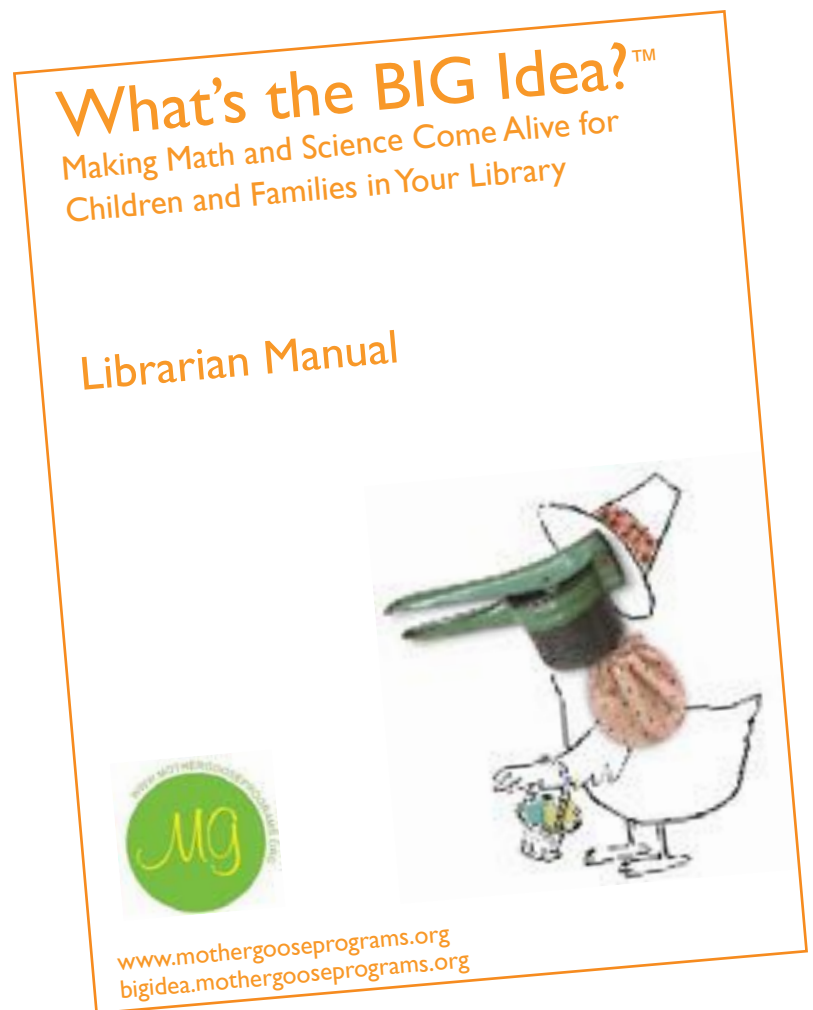




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articles

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Evaluation on
What's the BIG
Idea?

...and much more!



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**From now until
June 30, 2010,
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you'll receive 20% off
What's the BIG Idea? products!**

www.mothergooseprograms.org

