

Why Use Picture Books to Explore STEM With Young Children?

Stories are a powerful way to introduce math and science to children. Researchers recommend using picture books to develop STEM concepts and skills because picture books:

- Provide a story context for STEM content.
- Suggest manipulatives (hands-on learning materials) for a variety of STEM investigations.
- Encourage children to recreate stories in their own way, as well as to practice STEM skills.
- Pose problems that can be solved using varied strategies.
- Develop STEM concepts.
- Encourage the use of STEM vocabulary.
- Help children make sense of their world.

Many favorite story hour books lend themselves to discussion of STEM concepts. For example: When you read *The Three Little Pigs*, you can explore same and different, size and shape, building and problem solving.

In addition to using picture books to introduce a STEM idea, you may want to delve further into the facts by using **non-fiction books**. For instance, you could pair Chris Van Allsburg's *Two Bad Ants* with a good non-fiction book about ants.

Non-fiction books present facts and photographs or scaled drawings about a subject. Here are some things to consider when using non-fiction books:

- Non-fiction books are not meant to be read out loud from cover to cover. Before you use a non-fiction book, do as you would with a picture book and read it from cover to cover. Choose the parts of the book that reinforce, extend or otherwise add to the concept you and the children are exploring.
- Give the children time to look closely at photographs and illustrations. Read the captions to them to help explain what they are looking at.
- Stop reading after a few facts and talk about them.
- Use the non-fiction book to compare and contrast with the picture book. Do the ants in the photo look like the two bad ants? How are they the same? How are they different?

