

# Designing Effective Projects: Teaching Thinking

## Example of Teaching Thinking in the Elementary Classroom

### Teaching Thinking to Elementary Students

In [Meet the Bears](#), primary students look at bears from all angles and apply math and measurement skills to compare themselves with their furry friends. Students show what they have learned about bears by completing research on a particular bear species and then summarizing the information in a brochure to be distributed at the local zoo.

### Thinking Skills Mini-Lesson: Fiction or Non-Fiction

At the beginning of this unit, students are asked to look at a mixed set of books about bears and determine if they are fiction or non-fiction.

"We have a big pile of books here about bears. There are two different kinds of books. Some are fiction and some are non-fiction. Fiction books are imaginary and not true. Non-fiction books are scientific and are true. I'm going to look through some books and tell you what I'm thinking about while I decide if they are fiction or non-fiction.

"Well, in this book, the bears are living in a house and wearing clothes. That means it's imaginary because bears don't live in houses or wear clothes. That's what people do, not bears. In this other book, a bear is catching a fish. There are also pictures of different bears with their names underneath like brown bear or polar bear. That looks like a scientific book so it's non-fiction. In this book, it says 'Bobby the bear was walking down the road whistling a little tune.' I know that's fiction because bears don't whistle.

"I've put a pile of books on each of your tables. I want you to look at the books with your group and make two piles, one with the fiction books and one with the non-fiction books. For each pile make a list of why you put the books in that pile."

The teacher works with students as they sort the books then follows the activity with a discussion.

"Now that you have two piles, did you have any disagreements about whether a book was fiction or non-fiction?"

"There was one book where the bear was acting like a bear by growing and living in the woods, but the story was made up. Is that fiction or non-fiction?"

"That's a good question. A book doesn't have to have animals acting like humans to be fiction. A made-up story can have bears that act like real bears in it. Let's look at a fiction book with realistic bears and a non-fiction book. I'll tell you what I'm thinking while I look at the books."

"This book has writing in paragraphs and sentences. It also has conversation. Both of the books have pictures, but the pictures in this one have labels. I think the first book is a story with characters and a plot so it's fiction. The other book tells information about bears like how big they are and what they eat so it's non-fiction."

"Sometimes you can tell just by looking at a picture if a book is fiction or non-fiction, can't you. But sometimes you have to look more carefully. When you're writing a report that is non-fiction, you should get your information from non-fiction books because that is more reliable."

### **Thinking Skills Mini-Lesson: Do I Understand?**

The point of all reading is comprehension. This is an important part of learning to read, especially when children are going to use the information from their reading to complete a project. Some readers become so preoccupied with saying letters and words that they forget to pay attention to the sense of what they're reading. The following mini-lesson on checking for understanding should be given many times during the year with different kinds of texts.

"Today, you're going to be reading some non-fiction books to learn about bears. Understanding what you read is the most important part of reading. I am going to show you what I think about while I'm reading to make sure I understand."

'The black bear is approximately 5 feet long. Females typically weight about 90 pounds, while males weigh about 290 pounds. However, some can weigh up to 700 pounds.'

"Now I'm going to ask myself some questions about what I just read to see if I understood. 'What was this about?' It was about the size of bears. 'Was there any part I didn't understand?' No."

"Now I'll read the next part. 'Cubs usually weigh about 1 pound at birth. They have small eyes, rounded ears, a long snout, a large body, and a short tail. The shaggy hair varies in color from white through chocolate brown, cinnamon brown, and blonde to black, but most black bears are indeed black or a darker shade of brown.'"

"I'll ask myself 'What was the section about?' It was about what color they are. 'Was there any part I didn't understand?' What a snout is. 'If it is important to know that word, what could I do?' I could ask someone or look it up in the dictionary."

"While you're reading it's very important to ask yourself if you understand and what you can do if you don't understand. Now I want you to read a page from your book with a partner and take turns asking yourself those questions at the end of the page."

While students are practicing the strategy, the teacher coaches them as needed. Afterwards they share their experience and determine whether or not the strategy was effective.

Teacher: "Did anyone think of something different to do if they didn't understand what they were reading?"

Student: "I just read it over again."

Teacher: "That's a good strategy. Sometimes I like to put a little mark on a place I don't understand so I can go back and ask someone about it later. Sometimes I don't care if I understand a part because I don't think it's important, so I just keep reading, but I have to be really sure that it's not important."