

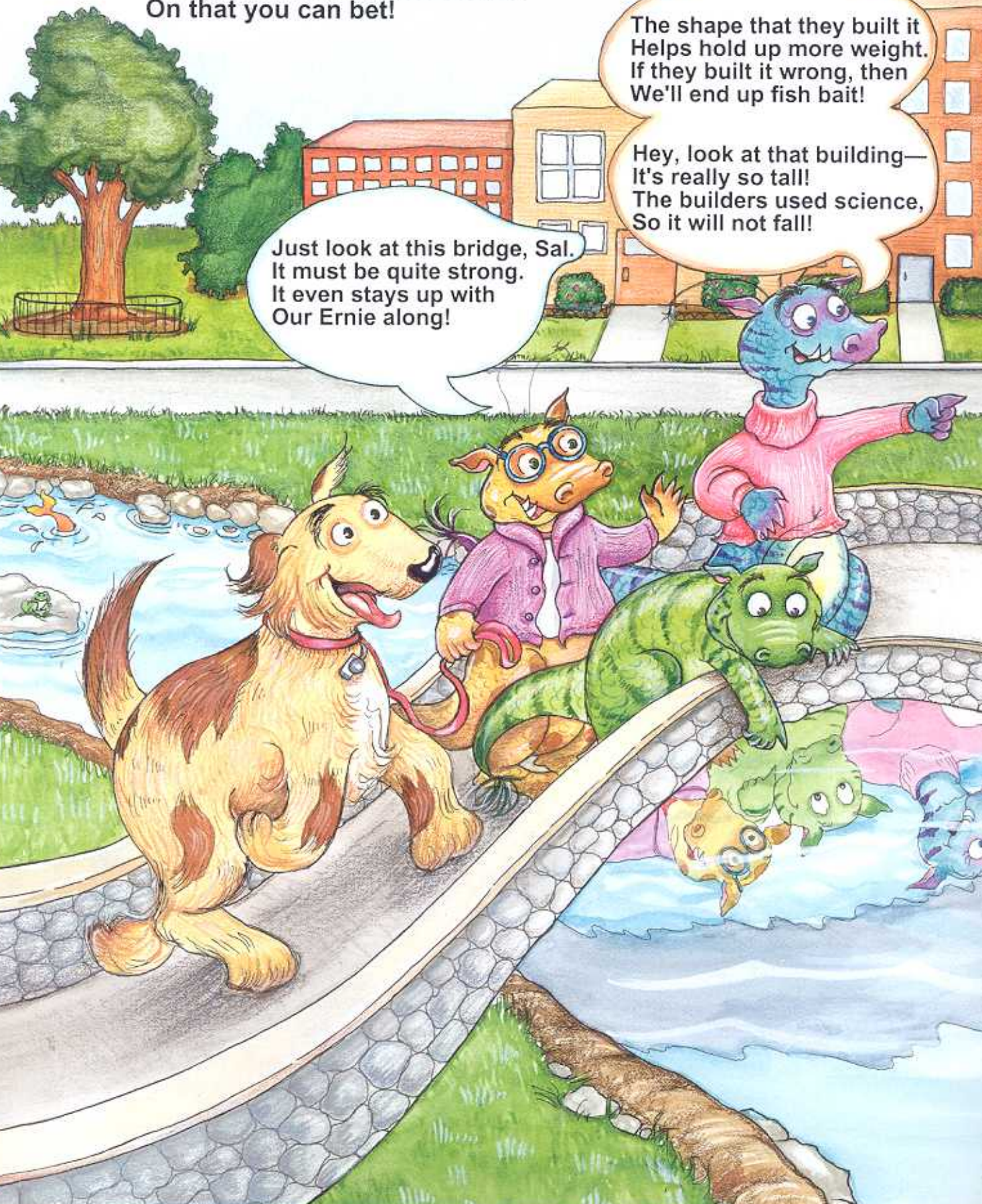
W

hile Sammy and Sally  
Are walking their pet,  
They'll see some more science.  
On that you can bet!

Just look at this bridge, Sal.  
It must be quite strong.  
It even stays up with  
Our Ernie along!

The shape that they built it  
Helps hold up more weight.  
If they built it wrong, then  
We'll end up fish bait!

Hey, look at that building—  
It's really so tall!  
The builders used science,  
So it will not fall!





Try the next two activities  
and discover how to make  
bridges stronger and  
buildings taller!



# BRIDGE BUILDING

This is what you need:

- sheets of paper cut in half lengthwise
- two stacks of books of equal height (about 10 cm)
- blunt tip scissors
- metric ruler
- pennies

Here's what you do:

**1.** Place the two stacks of books on a table at least 12 cm apart.



**2.** Using the half sheets of paper, make a bridge across the two stacks of books. Try out each of the design ideas on the next page first and then come up with a design of your own.

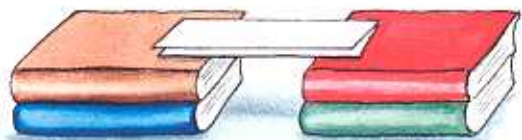
The Flat Bridge



Test the strength of each bridge design by stacking pennies one at a time in the middle of the bridge. See how many pennies your bridge can support without caving in.

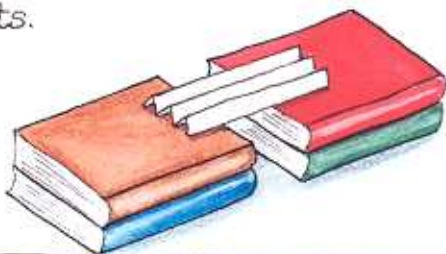
### The One-Fold Bridge

Fold your piece of paper lengthwise and lay it across the books.



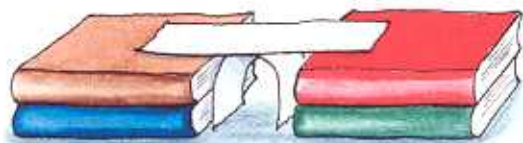
### The Accordion Bridge

Fold the long side of the paper back and forth to make pleats.



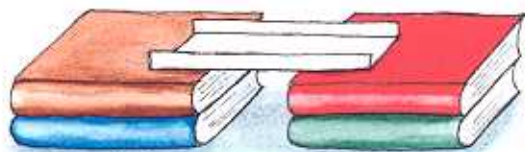
### The Arched Bridge

Cut the paper in half lengthwise. Place one strip between the books to make an arch and lay the second strip across the arch to make a bridge.



### The Walled Bridge

Fold each side of the paper up so that your bridge has walls on both long sides.



Which design made the strongest bridge? See if you can find another bridge somewhere in this book.

