

SHAPES



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SHAPES

In this book, you will:

discover interesting things about shapes.

learn new words.

answer fun questions.

play a shape matching game.

find more shape activities at the back of the book.

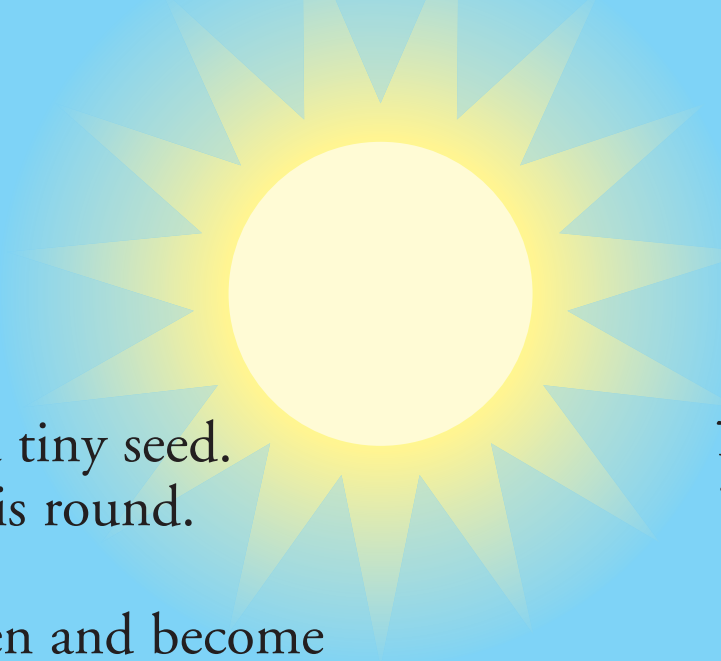
ENCYCLOPÆDIA
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CHICAGO LONDON NEW DELHI PARIS SEOUL SYDNEY TAIPEI TOKYO



Deep in the earth lies a tiny seed.
The shape of this seed is round.

The seed will burst open and become
something new
as it grows beneath the ground.



Slowly a plant takes shape from the seed
as it's warmed by the sun and watered by rain.

Just as the plant changes shape as it grows,
your shape will change too, again and again!



Think of cars and boats, animals and toys.
All of these things have their own shapes.
We can recognize many things
in our world by their shapes.



How many of
the shapes on
these pages
can you
name?

Some things can be many different shapes.

There are so many cars on the road,
but the cars don't all look the same.

They are different shapes. But they are all still cars.

Look at the boats and bicycles moving by.

They are all different shapes too!



Houses also have many different shapes.

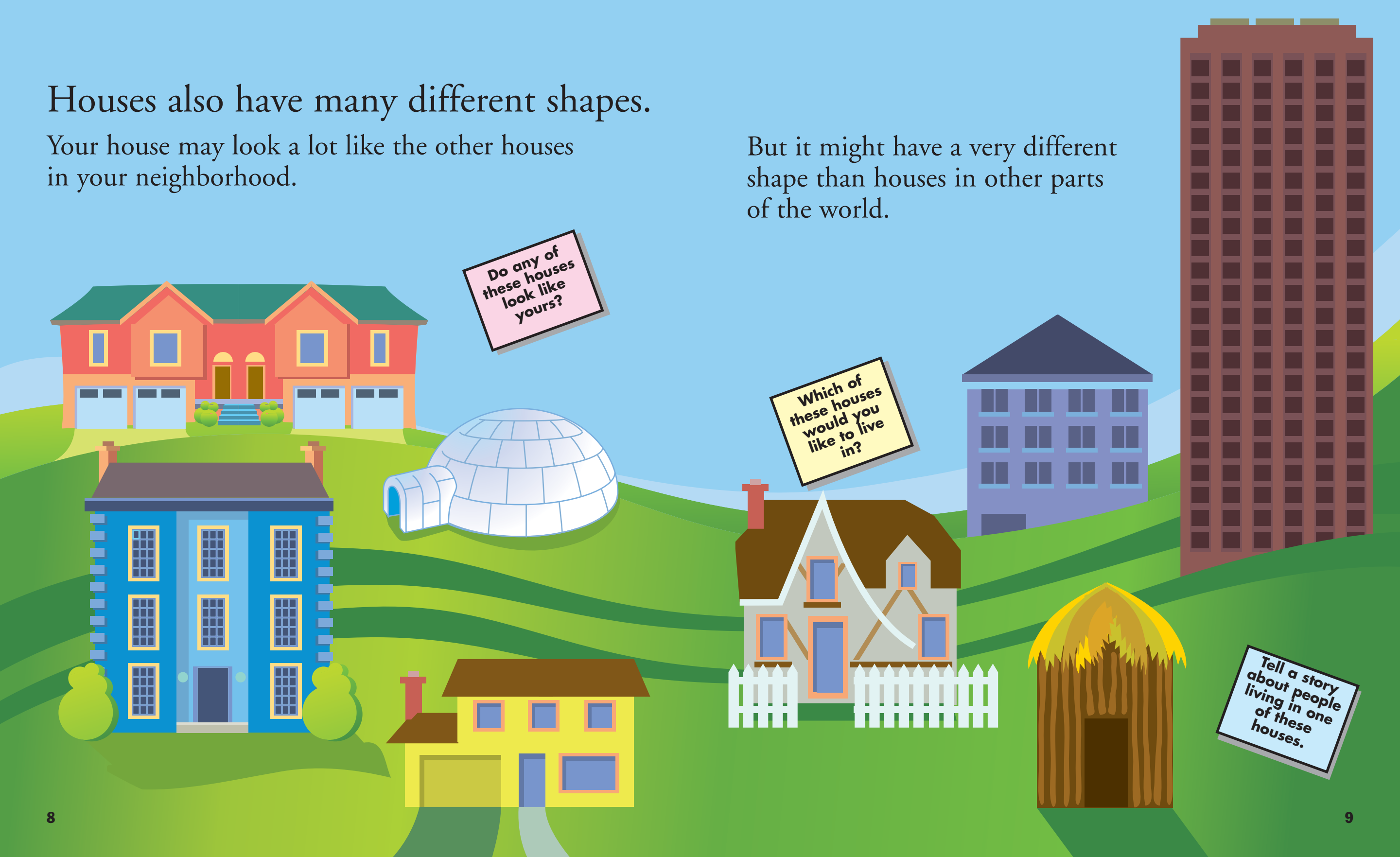
Your house may look a lot like the other houses in your neighborhood.

But it might have a very different shape than houses in other parts of the world.

Do any of these houses look like yours?

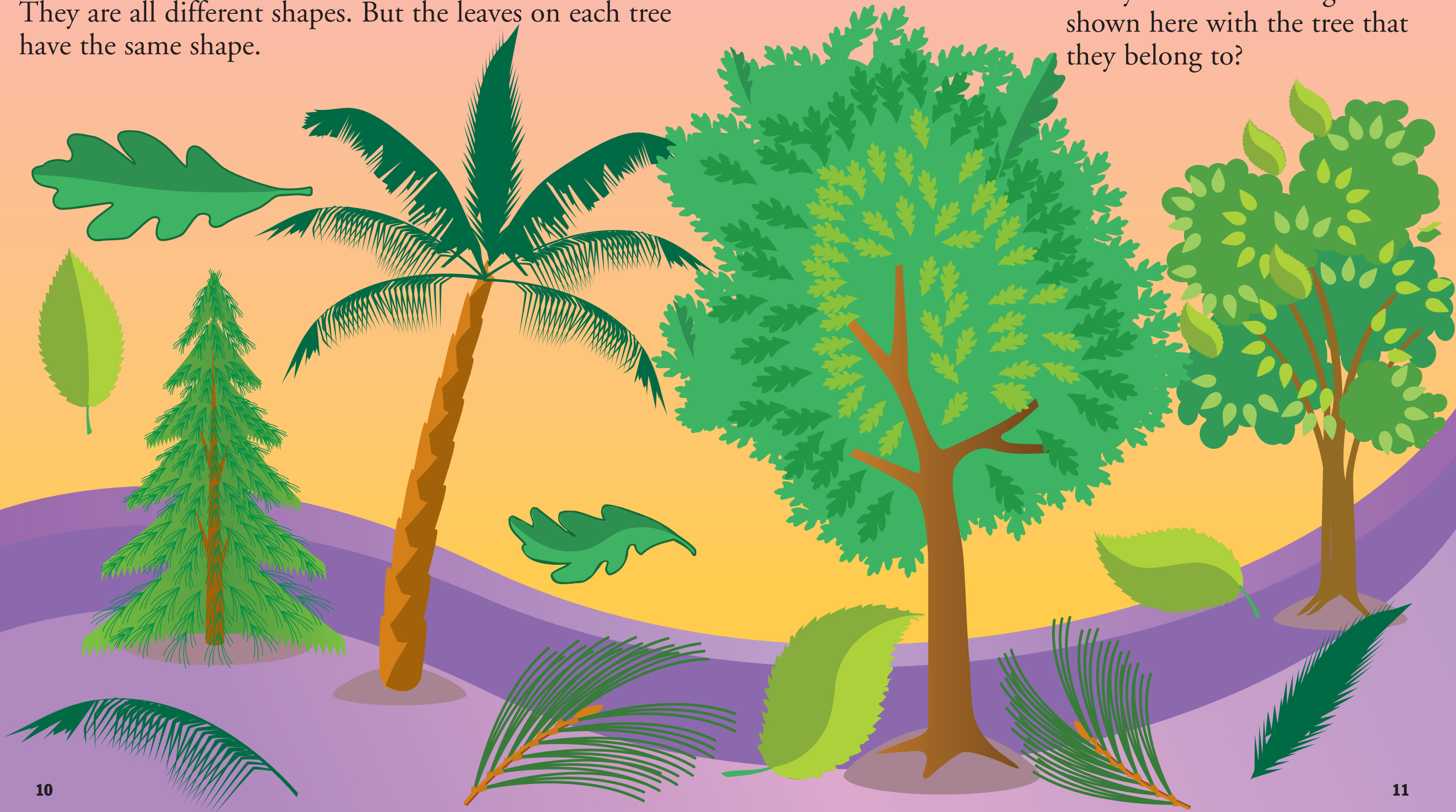
Which of these houses would you like to live in?

Tell a story about people living in one of these houses.



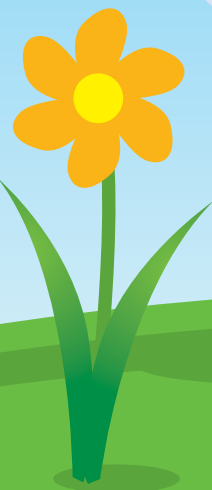
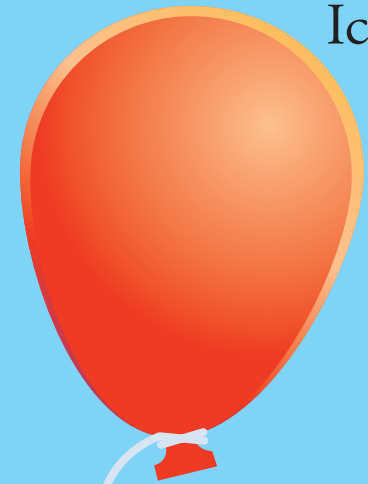
Look closely at the different trees shown here.
They are all different shapes. But the leaves on each tree
have the same shape.

Can you match the big leaves
shown here with the tree that
they belong to?



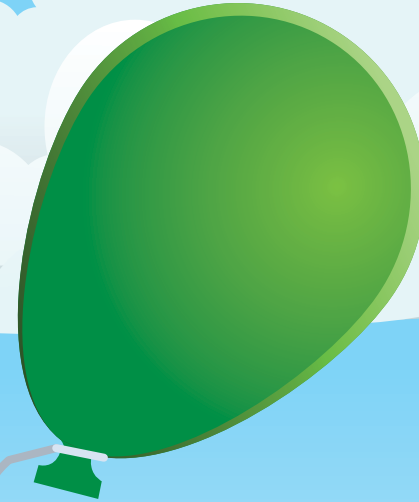
Some things stay the same shape unless something happens to change them.

Ice cubes melt when the air is warm.
The clouds change shape before a storm.



Blow up a balloon and just like that, you've got a balloon that's big and fat!

Bubble gum gets soft and gooey as soon as you start to chew it.





Many shapes have special names.

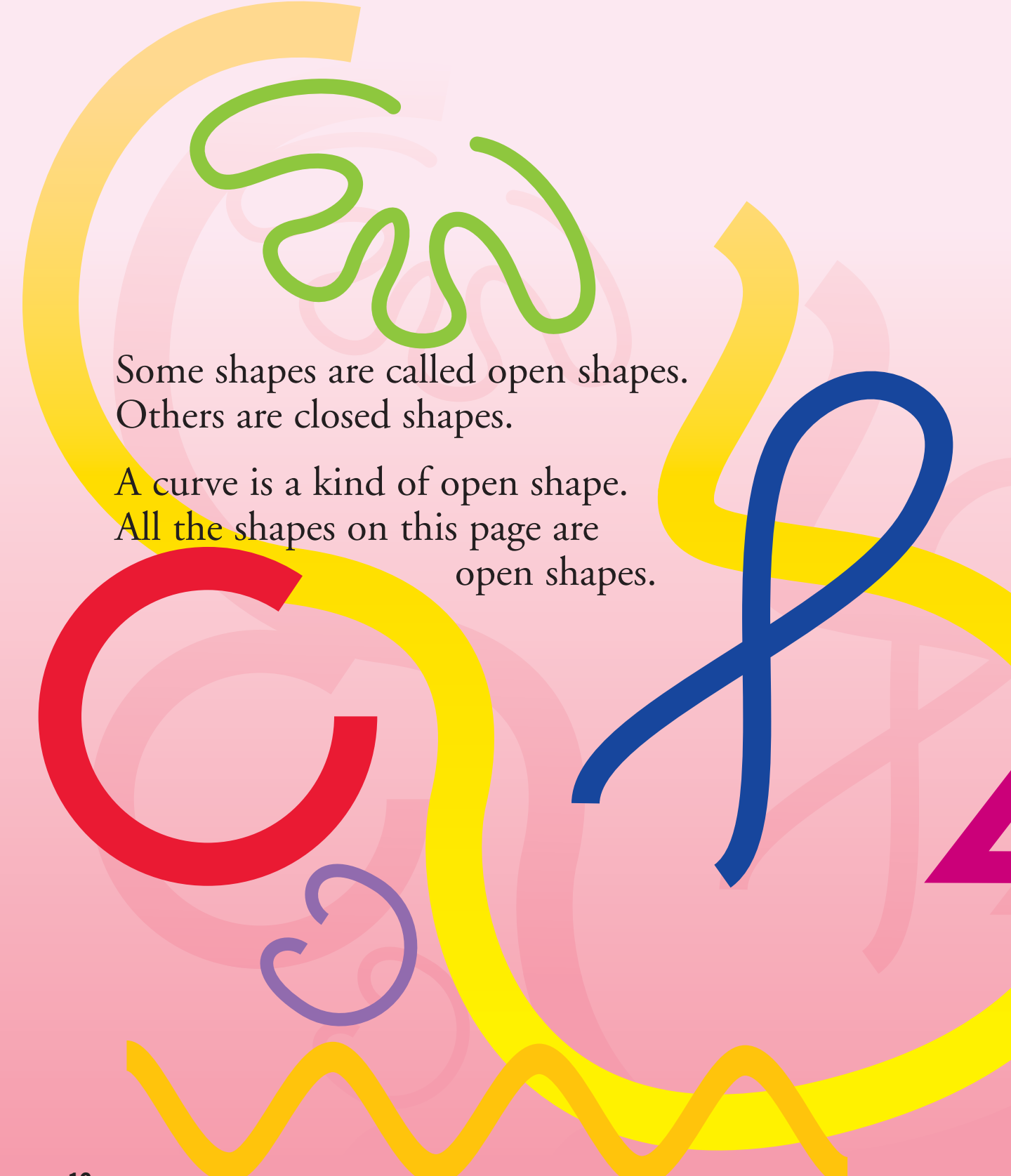
These names help us to talk about the world around us.

On some nights, the moon looks as round as a ball. Other times it looks curved.

The windows in your house may all be square. The front door is probably a rectangle.

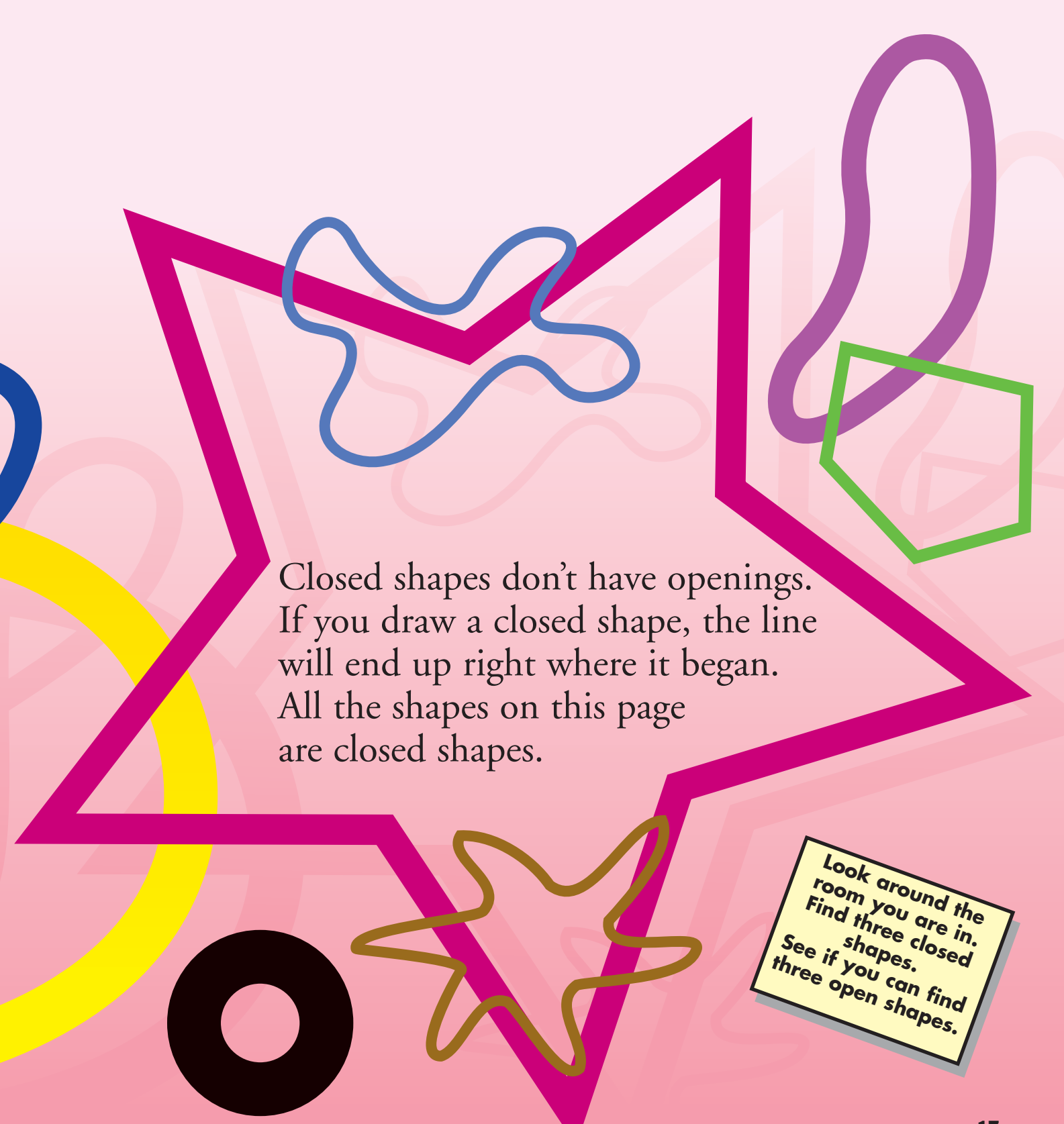


Look around the room you are in. How many shapes can you name?



Some shapes are called open shapes.
Others are closed shapes.

A curve is a kind of open shape.
All the shapes on this page are
open shapes.



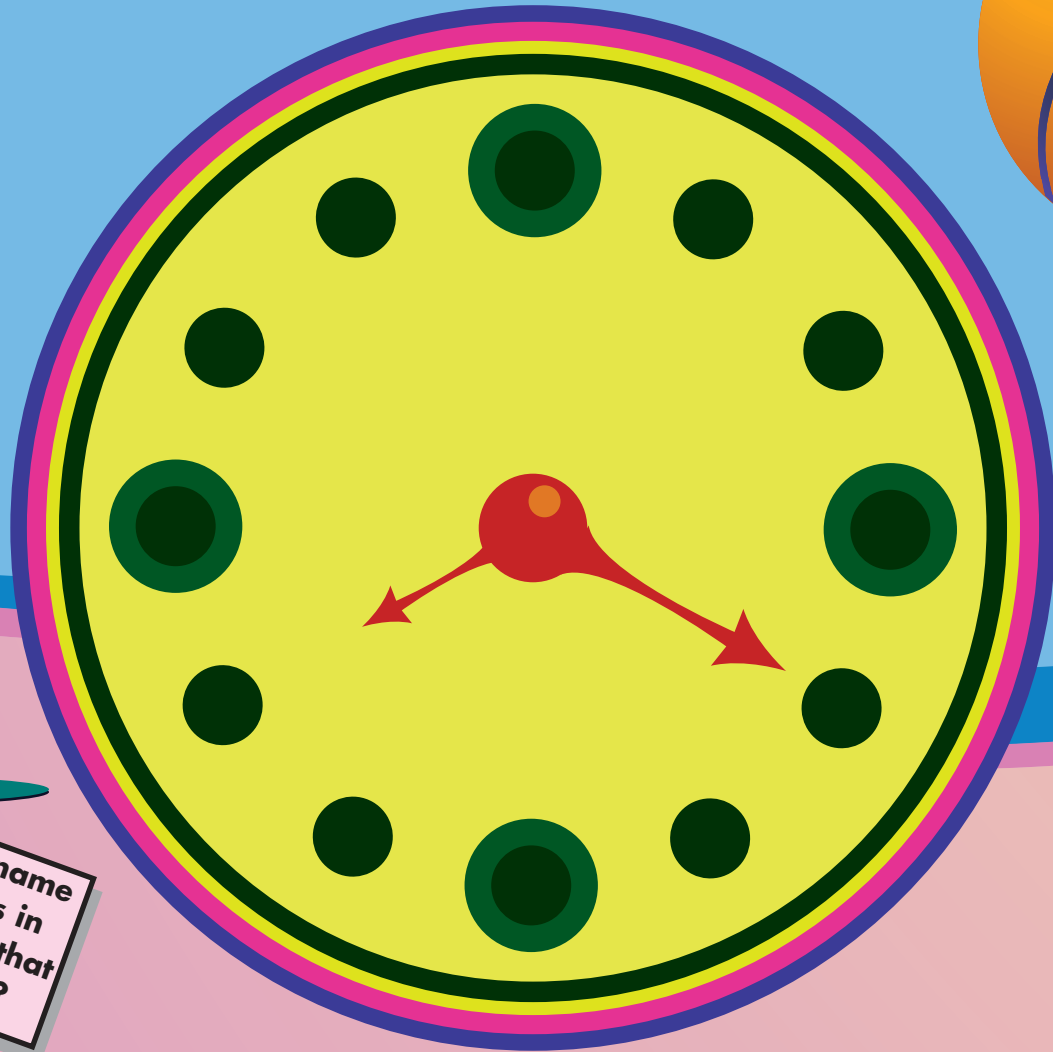
Closed shapes don't have openings.
If you draw a closed shape, the line
will end up right where it began.
All the shapes on this page
are closed shapes.

Look around the
room you are in.
Find three closed
shapes.
See if you can find
three open shapes.

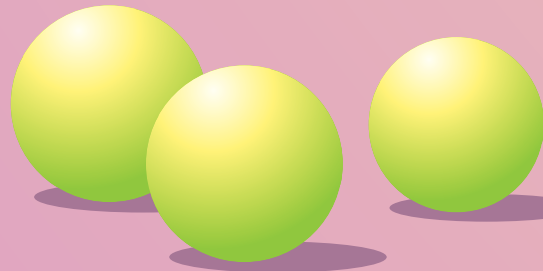
A circle is always round and flat.
Wheels are shaped like circles.
Most plates are circles too.



Can you name the things in this picture that are circles?

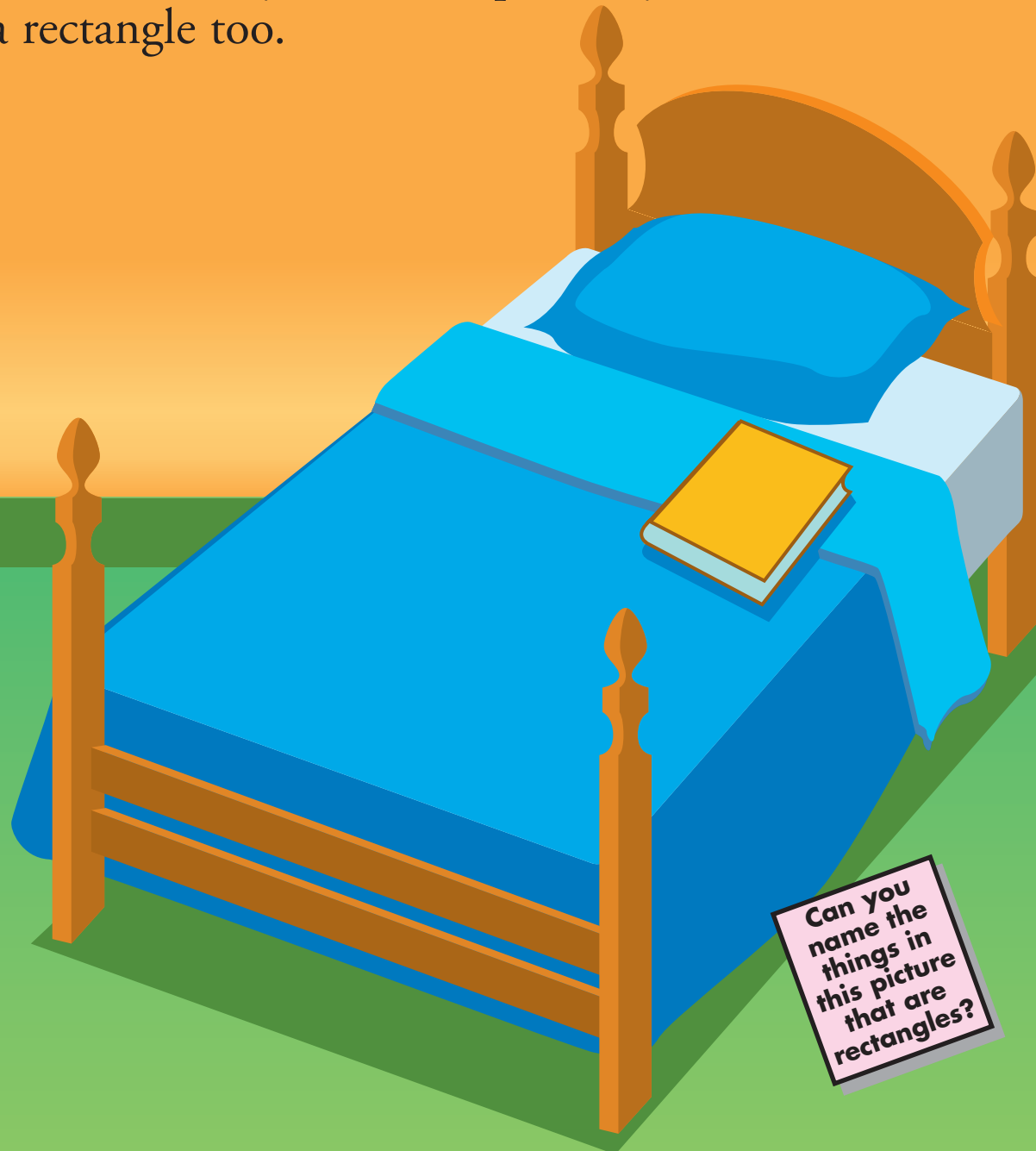
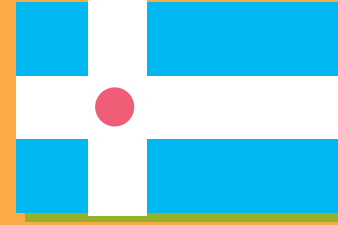


Can you name the things in this picture that are spheres?



Some things have a round shape, but they are not flat. This kind of shape is called a **sphere**. Basketballs and tennis balls and snowballs are all shaped like spheres.

A rectangle is a flat shape with four sides and four L-shaped corners. Flags are often rectangles. So are many windows. The blanket on your bed is probably a rectangle too.



Can you name the things in this picture that are rectangles?



Some rectangles have four sides that are all the same length. We call this special kind of rectangle a square.

Picture frames and postage stamps are often square-shaped.

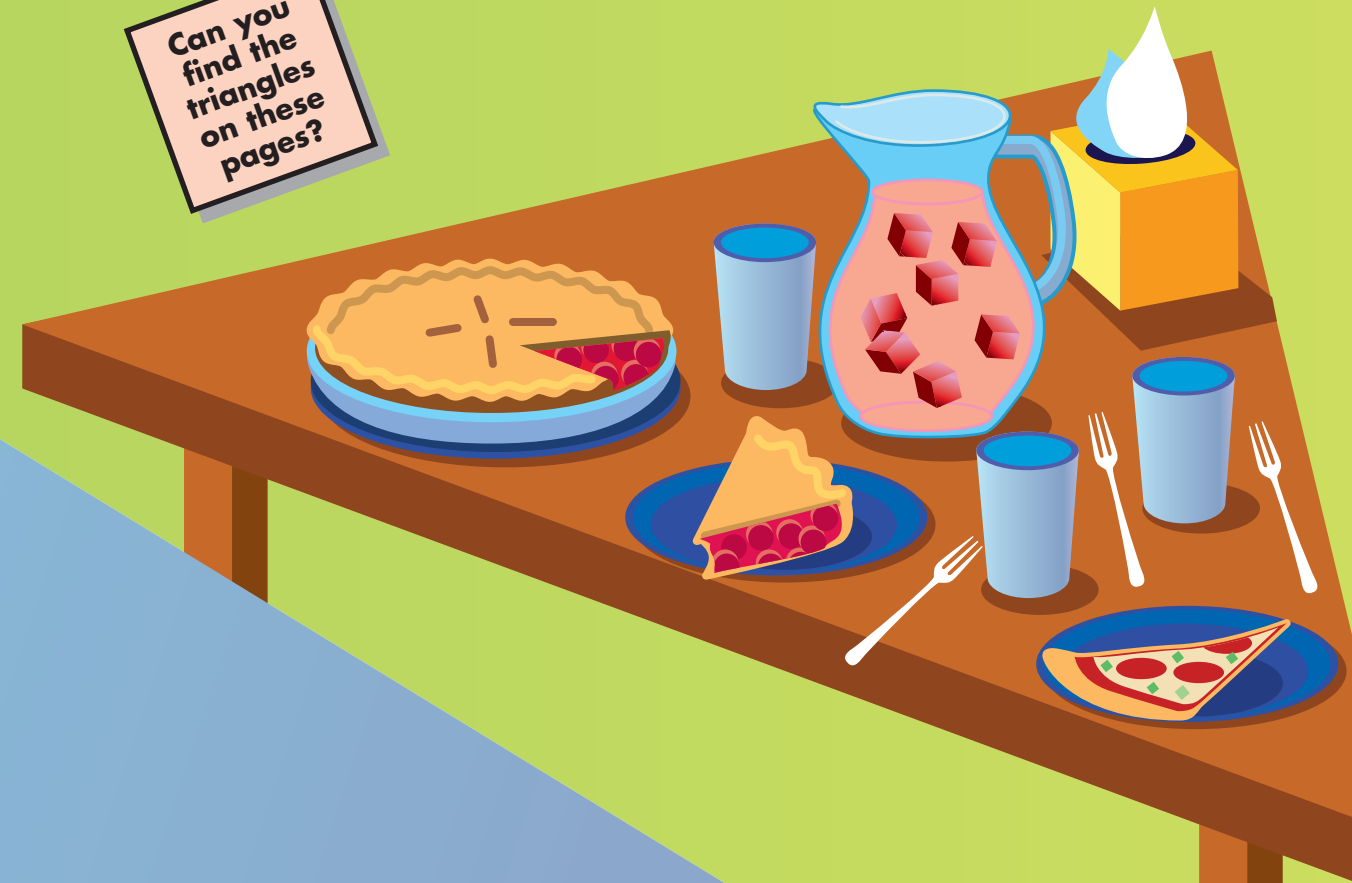
Can you name the things in this picture that are square?



The **triangle** is a flat shape with three corners and three sides.

Sometimes triangles have three equal sides. Other triangles have sides of different lengths.

Can you find the triangles on these pages?



Can you find the cubes on these pages?

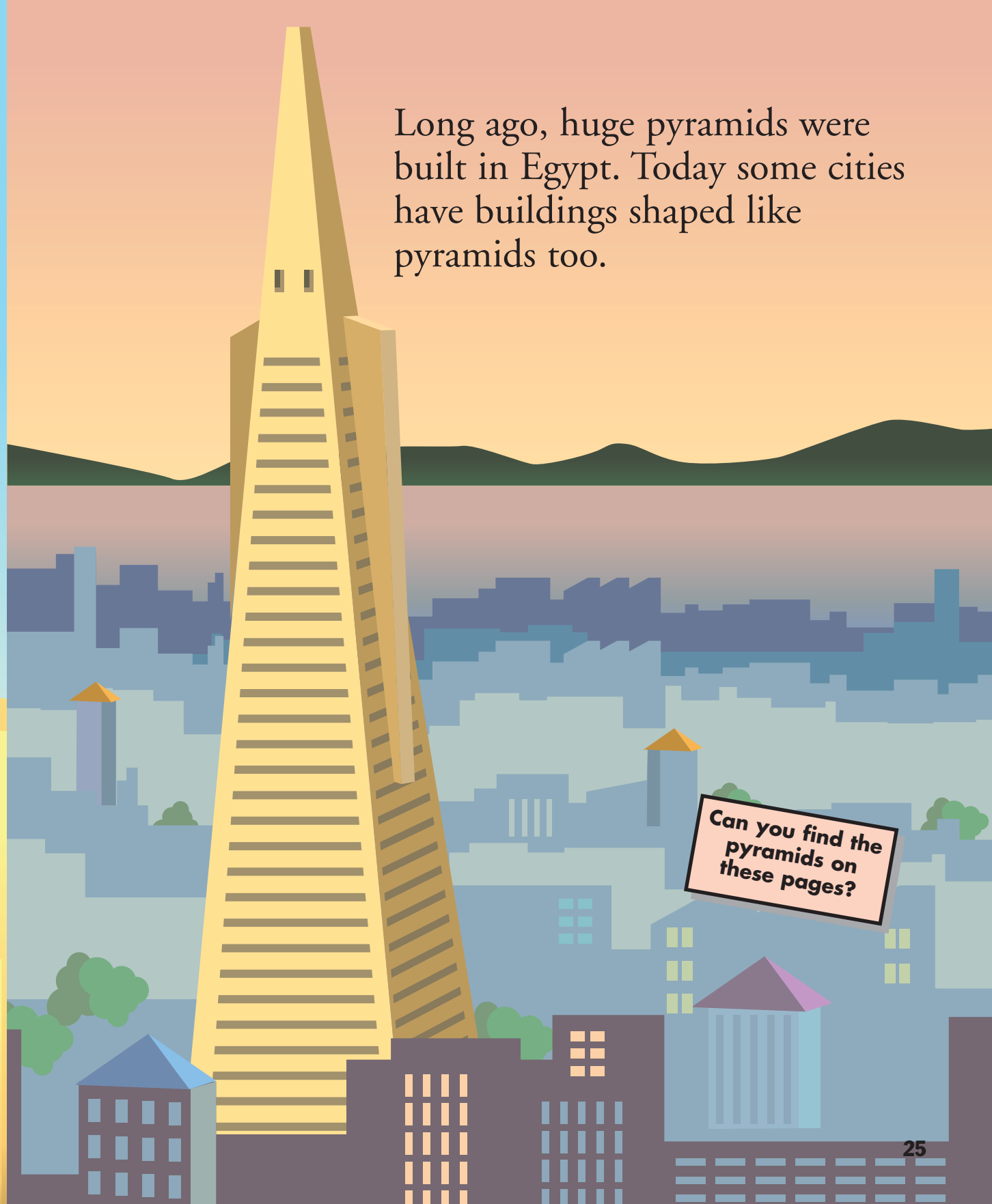
Most boxes have a top, a bottom, and four sides. Altogether this makes six sides.

Sometimes all six of these sides are square. Then we call the shape a **cube**.

Some buildings have a square bottom and sides shaped like triangles. The sides meet at a point at the top. This kind of shape is called a **pyramid**.

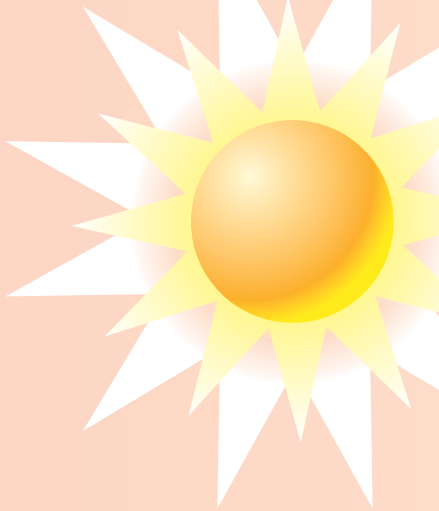


Long ago, huge pyramids were built in Egypt. Today some cities have buildings shaped like pyramids too.



Can you find the pyramids on these pages?

Triangle. Rectangle. Pyramid. Square.
Circle, cube, and sphere.
How many of these shapes can *you* find
in the picture here?



Our eyes see the shapes of things.
Our brains help us tell the difference
between these shapes.

We know a closed shape and an open shape.
We can tell if something is a square, a circle,
a cube, or a sphere. We see the difference
between a rectangle and
a triangle.

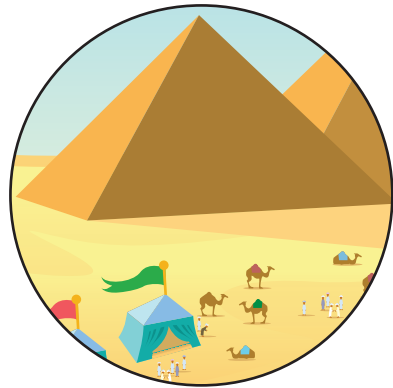
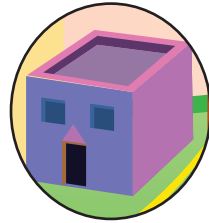
All the different shapes that we see make
the world a very interesting place!



SHAPES

GLOSSARY

cube (kyoob) a shape with six square sides all of the same size

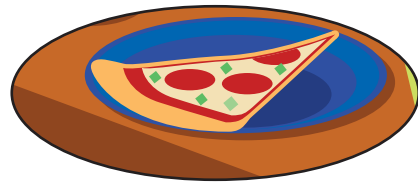


pyramid (PEER ah mid) a shape with a flat base and three or more sides shaped like triangles that meet in a point at the top

sphere (sfeer) a round shape in which every part of the outside is as close to the center as every other part



triangle (TRY ang uhl) a flat, closed shape with three sides and three corners



Fun Ways to Learn About SHAPES

Where Is My Shape?

1 How many circle, square, triangle, and rectangle shapes can you and your friends spy in a single room?

Take turns and try this: The first person chooses something in the room but does not say what it is. Give clues only. Say, for example, "I spy a triangle." Let the others try to guess what you've picked. If no one guesses it right away, add hints that describe the thing you have picked, like, "I spy a red triangle" or "I spy a striped circle."

Once someone guesses your shape correctly, take turns until everyone has had a chance to describe a shape in the room.

Crazy-Shapes Drawing

2 Can you draw a picture using only the shapes named in this book? Choose a photograph or a picture from a book or magazine to work from. On a piece of white paper or construction paper, try copying the picture you've chosen—but use only circles, rectangles, triangles, and other shapes. You might draw a dog using a circle for its head, triangles for ears, and a rectangle for its body. Or use your imagination and combine all kinds of crazy shapes to make your copy of the picture!

Shapes in the Bag

3 Play this game with one other person. Each person collects five or ten small, differently shaped things in their own bag or pillowcase. These could be things like a spoon, a comb, a hat, a small teddy bear, a pencil, a ring, a rubber band, a toy block, or anything!

When you have both collected all your things, come back together. Now name one of the things in your bag and ask your friend to reach in without looking and find that thing. If your friend pulls out the right thing, it stays out. If not, they have to put it back in the bag. The first person to empty the other person's bag is the winner!



Helping Children Get the Most out of the SHAPES Volume

The activities on the previous page will help your child expand his or her knowledge, skills, and self-confidence. Young children learn best when they use all their senses. They need to touch, explore, experiment. Most importantly, the experience should be fun!

Where Is My Shape? Adults and children can have fun playing this game together and your participation can help a child sharpen his or her visual skills. When they are looking for an object you've chosen, they may get a chance to identify shapes they might not have noticed without your hints—a triangular dish, a globe, etc.

Crazy-Shapes Drawing. Gather a collection of small, geometrically-shaped objects (circles, squares, rectangles, triangles, etc.) from around the house for the children to use as “models” in making their drawings. For example, gather cookie cutters, coins, dollar bills, coasters, etc. The children can either trace around these objects or copy them. Help them identify and name the shapes they are using to create their illustrations by asking questions about them, such as, “What shape did you use to make the dog’s ears?”

Shapes in the Bag. Give each child a container that’s not see-through, such as a bag or pillowcase. If more than two children are playing, or you play with them, each player should search the bag belonging to the person at their left (or right) so that the game moves along in a circular motion and everyone gets a turn. If you are directing the activity, help the children find small objects to put in their bags. The best choices are objects that are familiar to them and easy to name, so that they feel a sense of accomplishment when they identify something by feeling it rather than seeing it.

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