

# Fields, Rinks, and Courts

Partitioning Shapes



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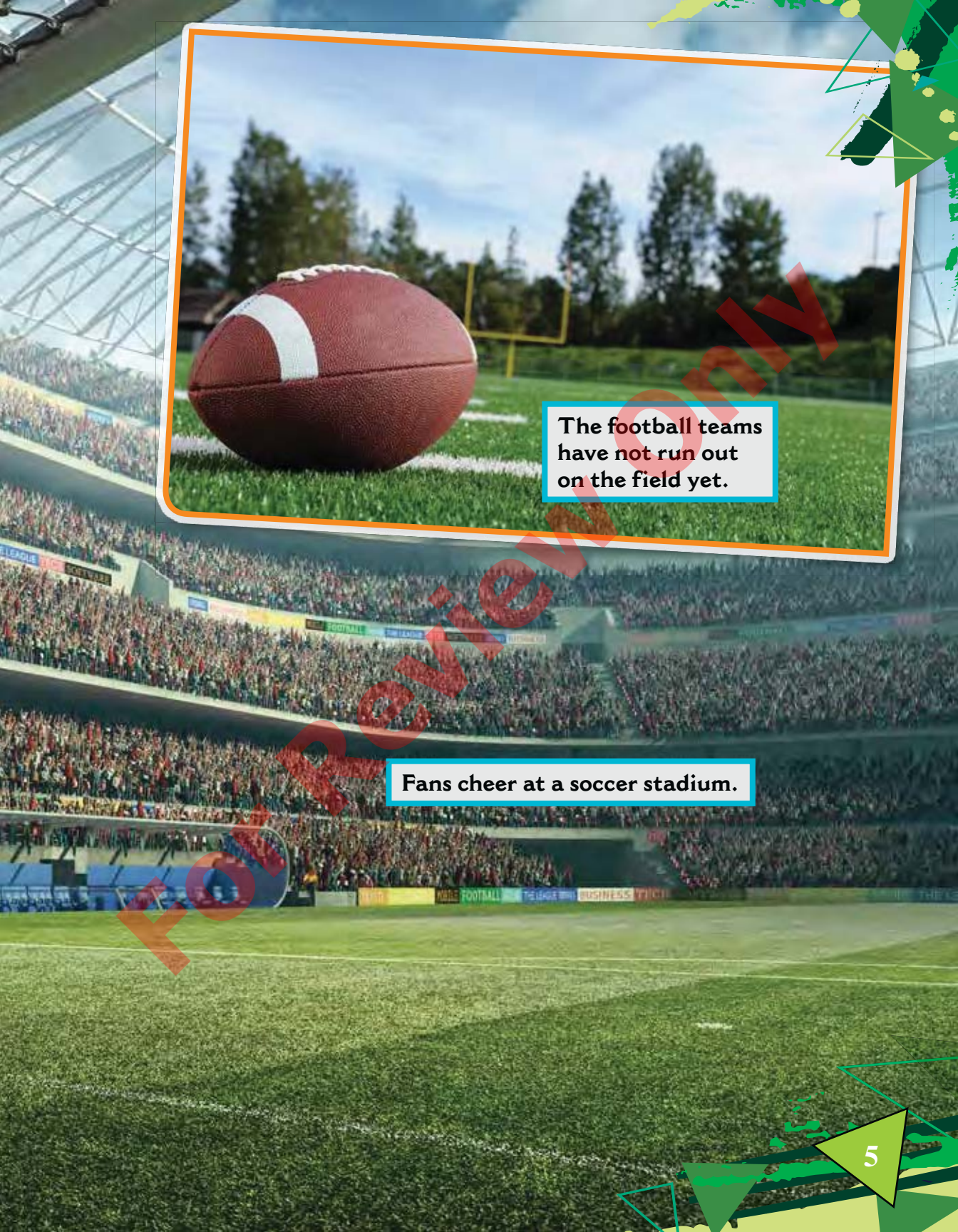


# Sporty Surfaces

The crowd goes wild! The players take the field. They skate onto the rink. They step onto the court. Sports are exciting. But before the action starts, take a time-out. Look down. That playing surface is special. It is **designed** for the sport that is played on it.



The football teams  
have not run out  
on the field yet.

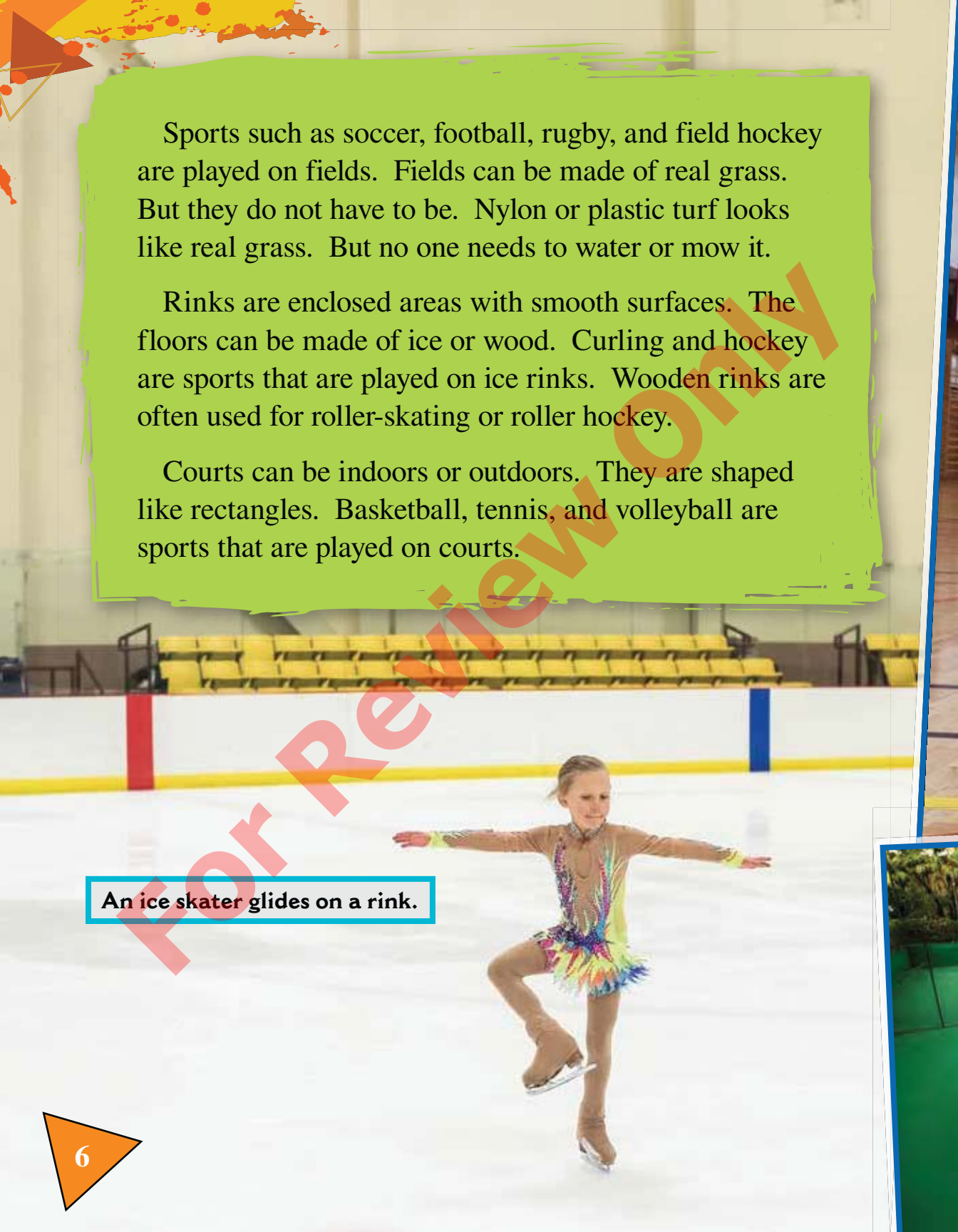


Fans cheer at a soccer stadium.

Sports such as soccer, football, rugby, and field hockey are played on fields. Fields can be made of real grass. But they do not have to be. Nylon or plastic turf looks like real grass. But no one needs to water or mow it.

Rinks are enclosed areas with smooth surfaces. The floors can be made of ice or wood. Curling and hockey are sports that are played on ice rinks. Wooden rinks are often used for roller-skating or roller hockey.

Courts can be indoors or outdoors. They are shaped like rectangles. Basketball, tennis, and volleyball are sports that are played on courts.

A young girl is ice skating on a rink. She is wearing a brown long-sleeved top and a colorful, fringed skirt. She is in a graceful pose, with one leg extended forward and arms outstretched. The rink has yellow and blue markings. In the background, there are yellow bleachers.

**An ice skater glides on a rink.**



basketball court



tennis court

# Just for Kicks: Soccer

Soccer is the most played and watched sport in the world. Most fans call this sport football. It is known as soccer in North America.

In soccer, players run up and down fields. They kick balls into nets to score goals. Most players can only use their hands to throw the ball back onto the field. Goalies can use their hands (and the rest of their bodies) to stop the other team from scoring goals.



**A goalie stops a goal.**



Two soccer players  
try to kick the ball.

# Math Talk

1. What is the relationship between a whole and its parts?
2. If a shape has three unequal parts, is it an example of thirds? Why or why not?
3. Ms. Clark asks her students to partition rectangles into halves. How many equal parts will the rectangles have? Will all of the students make the same drawings? Why or why not?
4. How can you use folding or cutting to prove that all of the parts in a partitioned shape are equal?
5. Do equal parts of a whole always have to be the same shape? Explain your reasoning.
6. Why do you think it is important for people designing sports surfaces to use equal parts? Would the competition still be fair if they did not? Why or why not?