

Stadiums



Published in the United States of America by

Cherry Lake Publishing

Ann Arbor, Michigan

www.cherrylakepublishing.com

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Library of Congress Cataloging-in-Publication Data

Names: Loh-Hagan, Virginia, author.

Title: Stadiums / by Virginia Loh-Hagan.

Description: Ann Arbor : Cherry Lake Publishing, [2017] | Series: Extraordinary Engineering | Includes bibliographical references and index. | Audience: Grades: K to Grade 3.

Identifiers: LCCN 2016032398 | ISBN 9781634721660 (hardcover) | ISBN 9781634722322 (pdf) | ISBN 9781634722988 (paperback) | ISBN 9781634723640 (ebook)

Subjects: LCSH: Stadiums—Juvenile literature. | Stadiums—Design and construction—Juvenile literature.

Classification: LCC GV415 .L64 2017 | DDC 796.06/8—dc23

LC record available at <https://lcn.loc.gov/2016032398>

Cherry Lake Publishing would like to acknowledge the work of The Partnership for 21st Century Learning.

Please visit www.p21.org for more information.

Printed in the United States of America

Corporate Graphics

ISBN-13: 978-1-68444-490-8 (e-book)

Synchred Read-Along Version by:

Triangle Interactive LLC

PO Box 573

Prior Lake, MN 55372

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The Rogers Centre is a stadium in Toronto, Canada, that has hosted baseball, basketball, soccer, and football games.

What Are Stadiums?

Stadiums host big events. Some have stages. Most have fields. Stadiums seat many **spectators**. Spectators are watchers. They watch sports games. They watch music shows. Most stadiums are **open air**. Some are covered. Some stadiums host baseball games. They're called **ballparks**. Stadiums are not **arenas**. Arenas host smaller indoor events, like basketball and hockey games.



The Colosseum is in Rome. It's a famous ancient stadium.

Stadiums have fields in the middle. Seats surround the field. There are three basic stadium designs. Oval-shaped stadiums have seats all the way around. They're large. **Horseshoe** stadiums are open at one end. They are U-shaped. Open stadiums are open at both ends.



Look!

Look at pictures of a stadium. Or go visit your local stadium. What type is it? How many seats does it have? What is it used for?



Stadiums must have strong **foundations**.

How Do Stadiums Resist Forces?

Stadiums are **anchored** in the ground. Solid rock holds them in place. **Load** travels down to the ground. This spreads out weight. Stadiums have steel **superstructures**. They have thin steel rods. Rods are wrapped in **concrete**. They're like steel tubes. This makes stadiums strong. Rods hold the concrete together.



Braces are added to superstructures.

Stadiums resist **forces**. Forces include wind and earthquakes. Engineers use **braces** to design stadiums. Braces bend. They don't snap easily. They take in forces. They spread out forces.

Football stadiums are designed to run north to south. This way, sunlight won't bother players. Baseball stadiums let wind whip through them. Wind travels up over the top. It speeds down to the field. Then, it goes over the other side. Wind can affect how balls fly.

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