

# HOW DOES IT WORK?

# TRAINS



# TABLE OF CONTENTS

## CHAPTER 1

|                   |   |
|-------------------|---|
| Early Trains..... | 4 |
|-------------------|---|

## CHAPTER 2

|                                  |    |
|----------------------------------|----|
| Diesel and Electric Trains ..... | 10 |
|----------------------------------|----|

## CHAPTER 3

|                                 |    |
|---------------------------------|----|
| Maglev and Hydrail Trains ..... | 16 |
|---------------------------------|----|

## ACTIVITIES & TOOLS

|                |    |
|----------------|----|
| Try This!..... | 22 |
|----------------|----|

|                |    |
|----------------|----|
| Glossary ..... | 23 |
|----------------|----|

|             |    |
|-------------|----|
| Index ..... | 24 |
|-------------|----|

|                    |    |
|--------------------|----|
| To Learn More..... | 24 |
|--------------------|----|



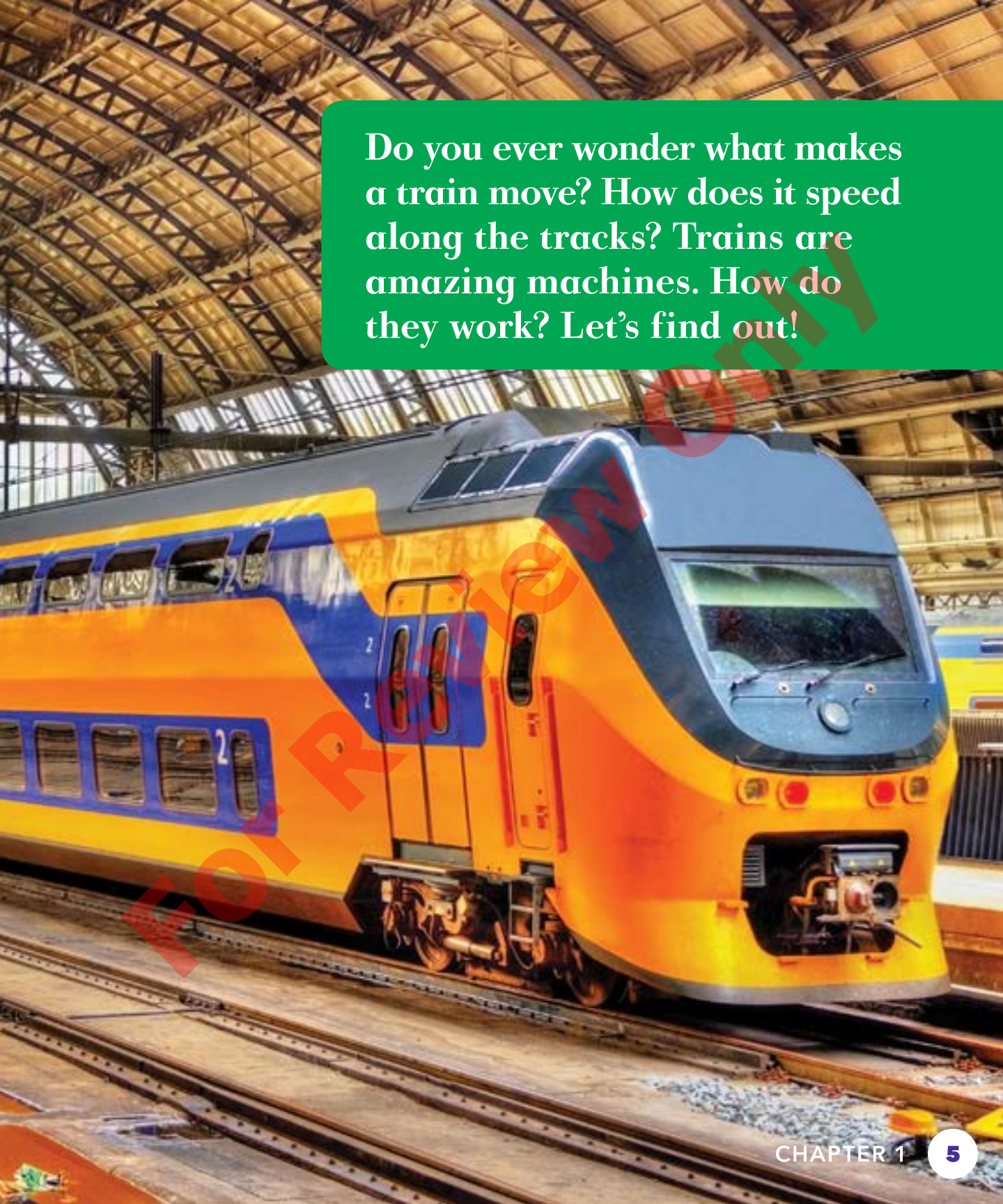
# CHAPTER 1

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## EARLY TRAINS

A loud horn blows in the distance. Crossing gates lower. A train roars by!



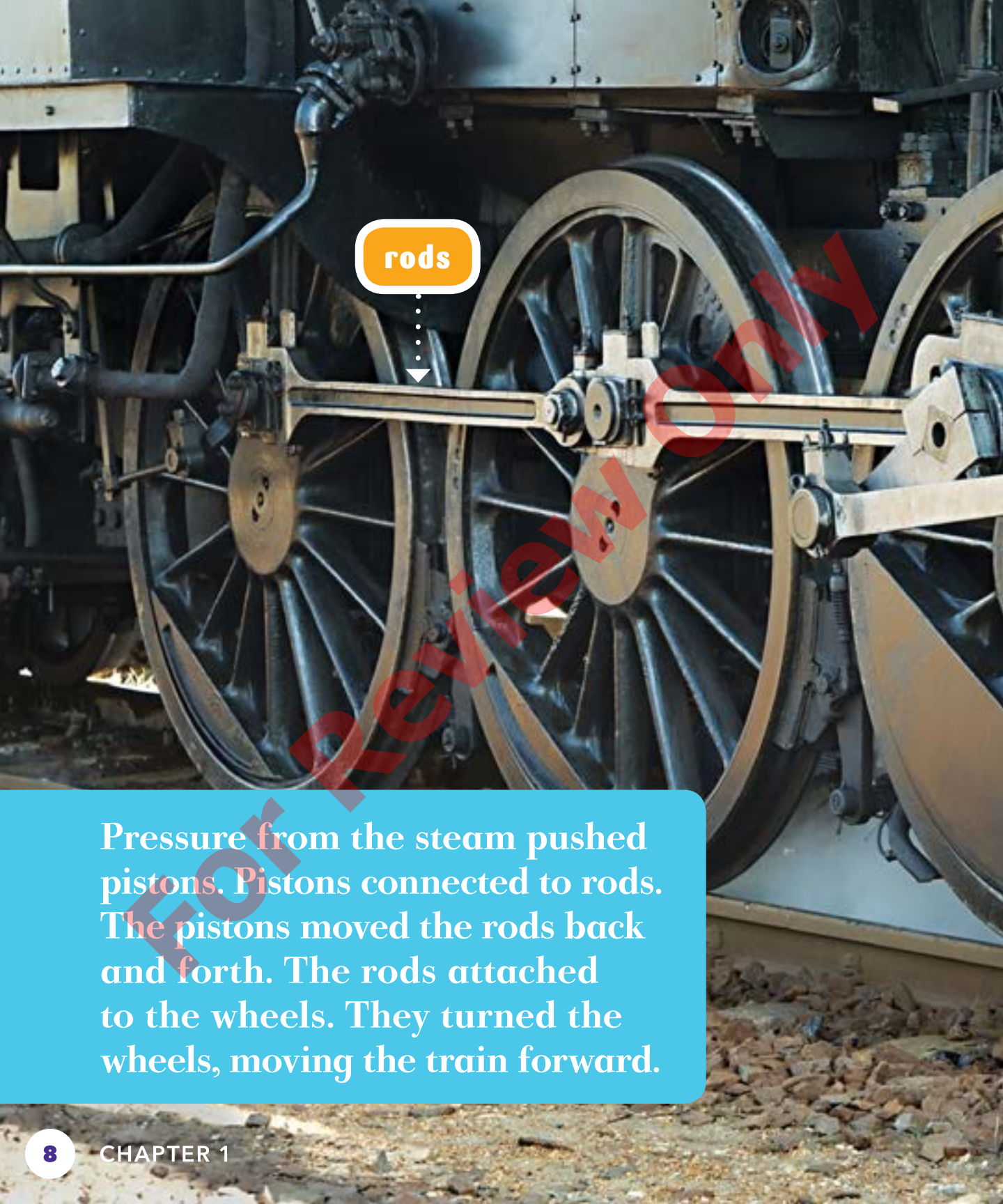
A high-speed train, primarily yellow with blue accents, is stopped at a train station. The train is a double-decker model, with the number '2' visible on its side. It is positioned on tracks within a large, arched glass and steel station structure. The train's front is aerodynamic, with a large windshield and several headlights. A red 'FOI Review' watermark is diagonally across the image.

Do you ever wonder what makes a train move? How does it speed along the tracks? Trains are amazing machines. How do they work? Let's find out!

Steam **locomotives** pulled early trains. Water and steam powered them. How? Coal was burned in a firebox. This heated tubes in the boiler. Water around the tubes boiled. This created steam. The steam built up **pressure**.







rods

A close-up photograph of the mechanical components of a steam locomotive. The image shows two large, spoked wheels connected by a horizontal rod. A label 'rods' in a yellow box with a dotted arrow points to the rod. The locomotive is on tracks with gravel bedding.

Pressure from the steam pushed pistons. Pistons connected to rods. The pistons moved the rods back and forth. The rods attached to the wheels. They turned the wheels, moving the train forward.

## TAKE A LOOK!

All parts of a steam locomotive worked together.

