

# How to Get Started

## 1 Getting Set Up

### You will need:

- A device for the teacher, or “guide” (preferably a tablet)
- A mobile phone and compatible VR viewer device (like Google Cardboard™) for the student, or “explorer”
- A Wi-Fi® network that is peer-to-peer enabled. It may be helpful to go through a router or hotspot.

**Download the FREE Google Expeditions app** to your devices from Google Play™ (for Android™) or from iTunes® (for iOS®). The first time you open Google Expeditions, you’ll be offered a brief demonstration of the app. In the demo, tap **Full Screen** to see how the app works without a viewer.

Teachers can start Field Trips, guide students through multiple panoramas, access notes, and highlight points of interest throughout the Field Trip. Students can insert the phone into the viewer and start exploring! The Field Trip must be started by the teacher.

## 2 Selecting HMH Field Trips

HMH has developed a variety of Field Trips that can be accessed through the Google Expeditions app, and more are coming all the time. Using the search function in the app, type in the exact title as it appears in the Lesson Plan (for example: **Carmen’s Hot and Cold Cap**).

## 3 Using the HMH Teacher Guides

HMH has developed Teacher Guides for HMH Field Trips with Google Expeditions that correspond to several of our programs. You can access these guides through your HMH Online Teacher Resources and incorporate them into your lessons.

### I like it! How can my school purchase the hardware?

Your school can purchase the recommended equipment through any hardware provider or work with a Google-certified provider like Best Buy® Education ([bestbuy.com/googleexpeditions](http://bestbuy.com/googleexpeditions)). With Best Buy Education, you can purchase a ready-made kit or build your own, depending on what suits your needs.

## Expeditions Guidelines

**These guidelines must be reviewed and accepted before using the Expeditions app.**

- Expeditions is only for users older than age 7. Students should not use Expeditions without adult supervision.
- Make sure that users participating in Expeditions in a Google Cardboard viewer have enough space to look around freely and do not attempt to walk around.
- Take frequent breaks while using Expeditions and Cardboard. If you experience nausea, discomfort, eyestrain, or disorientation, immediately discontinue using Cardboard.
- If you or any users participating in the Expedition session have had or could be prone to seizures, consult a doctor before using Cardboard.
- Ensure that any employees, agents, or contractors who are leading an Expedition have reviewed and understand these guidelines.

# Carmen's Ancient Caper

## Overview

Ancient constructions are one way historians learn about past civilizations. These structures can survive for thousands of years, long after the civilizations who built them have disappeared. The building methods used by ancient societies and the locations they selected for construction were rarely without purpose. From elaborate tombs to unexpected cities, these structures help us reveal clues and confirm theories about the ancient past.

Construction is an ancient human activity. Thousands of years ago, people were creating tools and manipulating different materials while developing various building techniques. The first structures were dwellings, but over time buildings began to have symbolic as well as functional value. Ancient civilizations built structures for spiritual and political reasons, as well as to explore the boundaries of their engineering and artistic abilities. We can observe these significant advances in examples of monumental architecture such as the Taj Mahal in India and the Colosseum in Rome. It is incredible to think that these wonders were constructed without the aid of modern technology.

In this activity, students will take an HMH Field Trip to some of the world's most famous ancient places. They will learn the stories behind these great structures and explore how they were built. They will travel to the city of Petra, the Parthenon in Athens, and the Pyramids of Giza. Then students will write a news article about a location from the HMH Field Trip.

## Objectives

In this lesson, students will learn to:

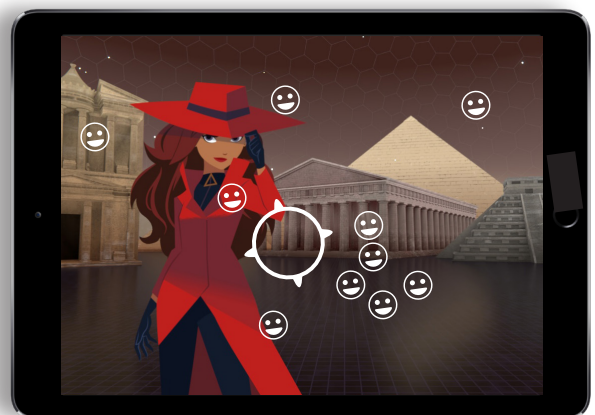
- describe the architectural features of an ancient structure
- summarize information about an ancient structure
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience

## Classroom Activity

- Two 45-minute class periods

## Introduce

Ask students, "How old is the home you live in? What materials were used to build your home?" (*Student responses will vary. Students can provide an estimate if they are unsure of the home's exact age. Allow time for a variety of building materials to be shared. You may wish to record a list of responses. After students have shared their examples, ask them to think of other building materials that may not be on the list. Take this opportunity to also discuss the materials ancient people used for construction—sticks, leaves, mud, animal hides and bones, etc.*) Then ask, "How long do you think it took to build the home you live in? How does modern technology help construction today?" Discuss student responses. (*Responses will vary for both questions, but students should provide reasonable answers when discussing how long they think it took to build the homes they live in. Students may address the second question around the following ideas: faster construction times and increased productivity due to use of heavy machinery, advanced tools, computer-aided design, a wide variety of building materials, safety equipment for workers, etc.*) Tell students that on this HMH Field Trip, they will journey to some of the most famous ancient structures on the planet.



## Teach

1. Guide students through the HMH Field Trip **Carmen's Ancient Caper**. As students look at each scene using their viewers, read the information that appears to the class. Tap on each point of interest to direct students' attention, then share the additional information. Each scene includes a set of leveled questions that you can use to check students' understanding. At the end of the field trip, have students put their viewers down. Briefly discuss with students what they learned.
2. Students should understand that ancient structures were built without the conveniences of modern technology. Ancient civilizations did not have access to equipment such as steel tools, hydraulic cranes, or bulldozers. When the Egyptians were constructing the pyramids, they faced the challenge of moving large stone blocks to different heights. Archaeologists generally agree that the Egyptians designed a ramp system to accomplish this task. The ramps were built on inclined planes of mud brick and rubble. Workers then dragged the blocks to the desired height using a type of sled. As the pyramid grew taller, the ramp was extended in length and its base was widened.
3. Introduce the task. Students will imagine that they are a reporter who has traveled back in time to the construction of a structure from the HMH Field Trip. They have been tasked with writing a news article about what is happening at the site. Assign each student an ancient structure from the HMH Field Trip. Then provide students with the information below to assist them in writing their news articles. Students may also need to conduct additional research.

Have students:

- create an effective headline or title
- present clear, factual information in the form of a lead paragraph followed by supporting paragraphs
- answer the *who, what, where, when, why,* and *how* questions of a news story by including relevant details
- share their observations of what is going on at the construction site to create imagery
- check for proper grammar, spelling, capitalization, and punctuation

## Close

Call on several students to read their news articles to the class. Then follow up with a group discussion to compare the construction and architecture of the various locations featured in the HMH Field Trip. You may wish to record responses on a chart.

## Teaching Tips and Information

**The Temple of Kukulcan:** This Mesoamerican step pyramid was built over a preexisting temple around 1000 AD when the great Mayan city of Chichén Itza flourished in today's eastern Mexico. The structure's 365 steps represent the number of days in a year and reflect the Maya's great interest in astronomy. Twice a year, the shadows of the setting sun form the shape of a snake slithering down the steps.

**The Hagia Sophia:** This grand cathedral in Istanbul, Turkey, was built in the 500s AD by order of the Byzantine emperor Justinian I. It became a mosque in 1453 after the Turks conquered the city. The floor is made of marble, which was imported from other parts of Turkey and Syria. The base of the dome is surrounded by a ring of windows, which gives the impression that the dome is floating.

**Al Khazneh:** This 127-foot facade in the city of Petra, Jordan, was carved into desert rocks using only ancient tools like chisels and pickaxes. It was most likely a tomb for a Nabataean king, perhaps Aretas IV, who ruled from 9 BC until 40 BC. In ancient times you would get to Al Khazneh through a narrow gorge called the Siq. The structure appeared in *Indiana Jones and the Last Crusade* as the hidden location of the Holy Grail.

**The Parthenon:** Built by the Athenians in the 400s BC and dedicated to the goddess Athena, the Parthenon in Athens, Greece, is an extraordinary temple constructed of marble. It was designed by the architects Ictinus and Callicrates and the sculptor Phidias. The forty-six outer columns line a 230,000-square-foot base. During its almost 2,500-year history, the Parthenon has been repurposed as a Byzantine church and a Turkish mosque.

**The Pyramids of Giza:** These colossal tombs for Egyptian kings were built around 2500 BC. They stand right at the edge of modern Cairo in Egypt. Archaeologists think the workforce used for construction may have been 20,000 people. The oldest and largest of the pyramids was built for Khufu, the second king of Egypt's fourth dynasty. It was 481.4 feet tall originally, but is a little shorter now