

Welcome Back to Science 5th Graders!

Start Thinking ...

What are some of your favorite things to see in the sky during the day?

What are some of your favorite things to see in the sky at night?

Learning Target



I can begin to form a theory on why we see different stars at different times.





Grade 5 | Patterns of Earth and Sky
Lesson 1.1: Pre-Unit
Assessment

Activity 1

Introducing the Unit





In this unit, we're going to take a closer look at the stars and use what we observe to help us solve a mystery.



What **ideas** do you have about stars?

What **questions** do you have about stars?

Vocabulary



star

a huge object in space that gives off heat and light

We're going to look at some images together.

Observe each one silently. Then I'll ask a few of you to **share** your thoughts of the image.

Sky Disc

Nebra, Germany
3,600 years old



Rock Painting

Chaco Canyon,
New Mexico
about 1,000 years old



Stonehenge

England, built
between 4,000
and 2,000 years
ago



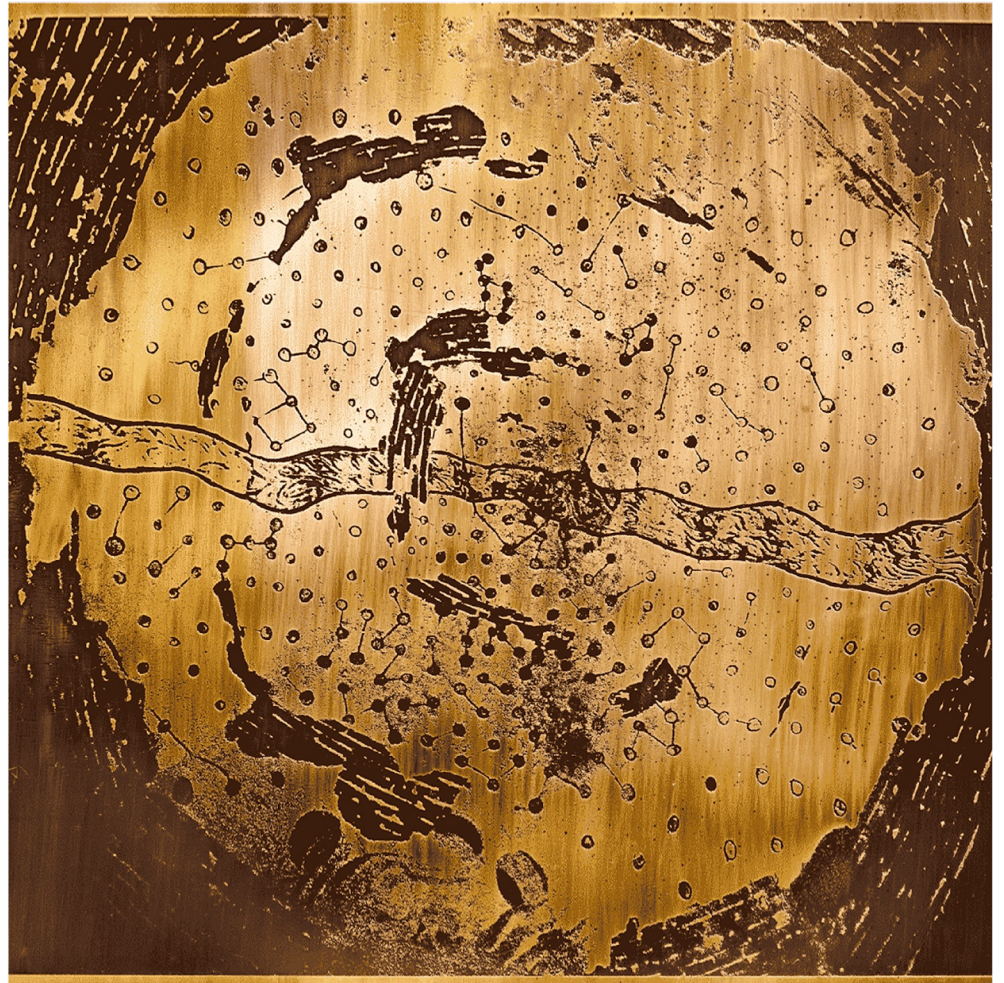
Temple Painting

Dendera, Egypt
over 2,000 years old



Star Map

Tomb Painting
Luoyang, China
1,600 years old





You will take on the role of **astronomers** as you try to solve a mystery by investigating things we see in the sky as we're standing on Earth.

Vocabulary



astronomer

a scientist who studies stars, planets,
and other objects in the universe



Unit Question

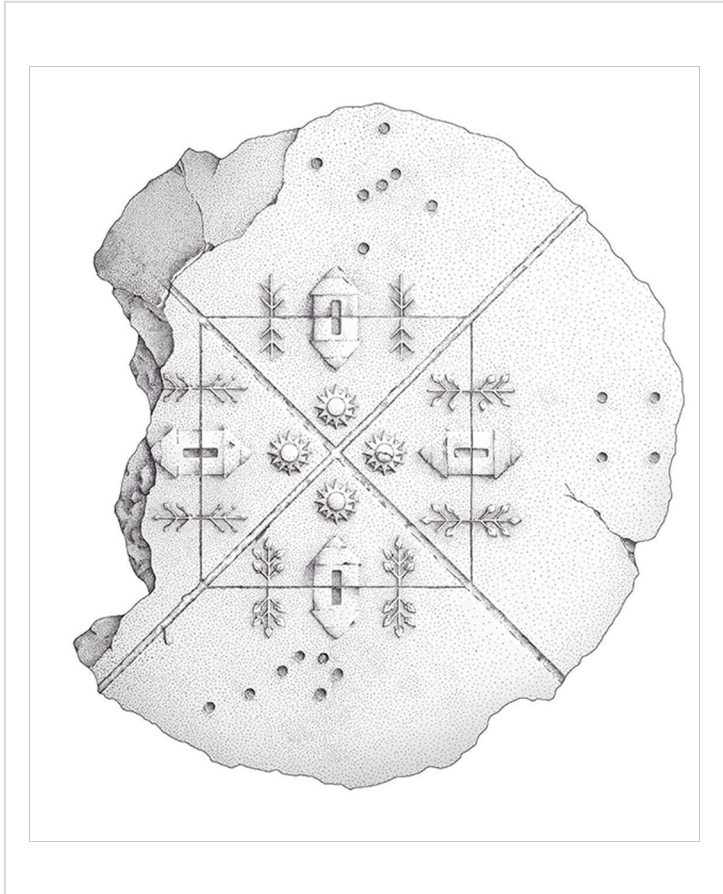
Why do we see different stars at different times?

Activity 2

Introducing the Artifact







Archaeologists uncovered this artifact.



What do you notice or observe about it?



To: Student Astronomers

From: Dr. Sabri, Museum of Archaeology

Subject: Mysterious Artifact

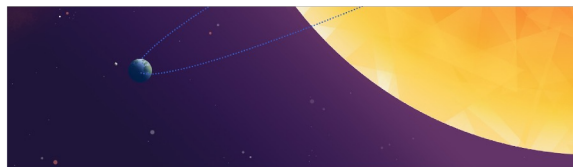


Our museum's field research team located an artifact, and we think it might be more than 1,000 years old. We believe it shows something about the sun and the stars, although one section is missing. Would you be able to help us figure out what the missing section looked like?

We want to put the artifact on display at the museum, and it would be nice to show people how it might have looked before it was broken.

A map is attached to show you where the artifact was found, in case that is helpful.

AmplifyScience



Patterns of Earth and Sky:

Analyzing Stars on Ancient Artifacts

Investigation Notebook

We are going to be using an **Investigation Notebook** like scientists use.

Name: _____ Date: _____

Observing the Mystery Artifact

Observe each section of the artifact, and then record your observations.



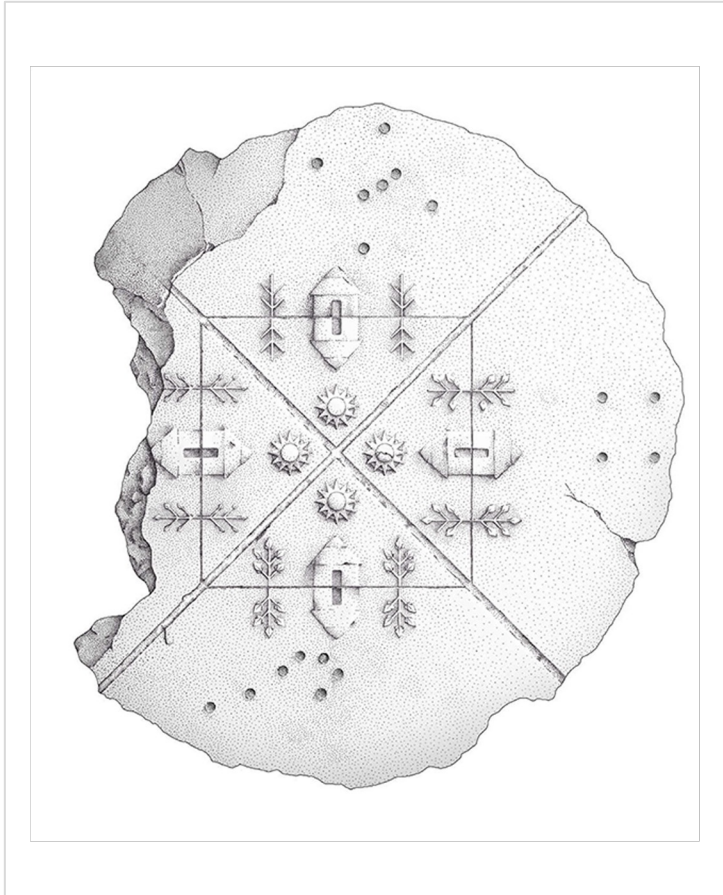
1. What did you observe about this artifact?

2. What similarities or differences did you notice in the artifact sections?

Turn to page 3 in your notebooks.



Record your observations of the artifact.



You've now had time to look closely at this artifact.



What did you observe about it?

Activity 3

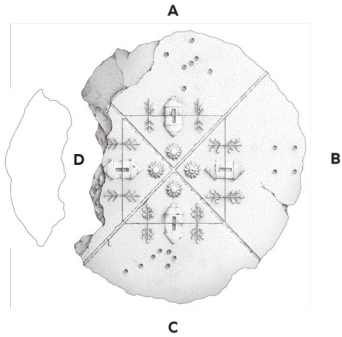
Pre-Unit Assessment



Name: _____ Date: _____

**Pre-Unit Writing:
Explaining the Discovered Artifact**

Scientists discovered this while digging for ancient artifacts, but the artifact is missing part of section D.



On the following pages, answer the questions as completely as you can.

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Image credit: (man-son)/Michael Zick/Donery/Noni Project, (world globe)/Shutterstock

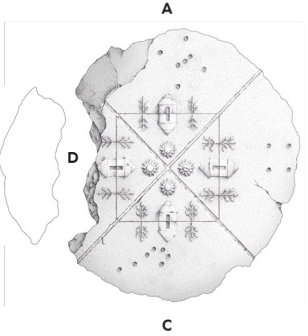
4

You are going to write your **first ideas** about why each section of the artifact might look the way it does.

Name: _____ Date: _____

**Pre-Unit Writing:
Explaining the Discovered Artifact**

Scientists discovered this while digging for ancient artifacts, but the artifact is missing part of section D.



On the following pages, answer the questions as completely as you can.

Patterns of Earth and Sky—Lesson 1.1 1
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Record your ideas
about the artifact, the
people at the museum,
and the dig site.

When scientists answer questions about the world, they think about their **experiences**.

Experiences are things we have seen or done.

Our Experiences



We will use this chart to record our experiences.



Let's talk about our **experiences** with stars in the sky during the day and at night.

What We Think We Know



We can use this chart to record what we think we know so far.

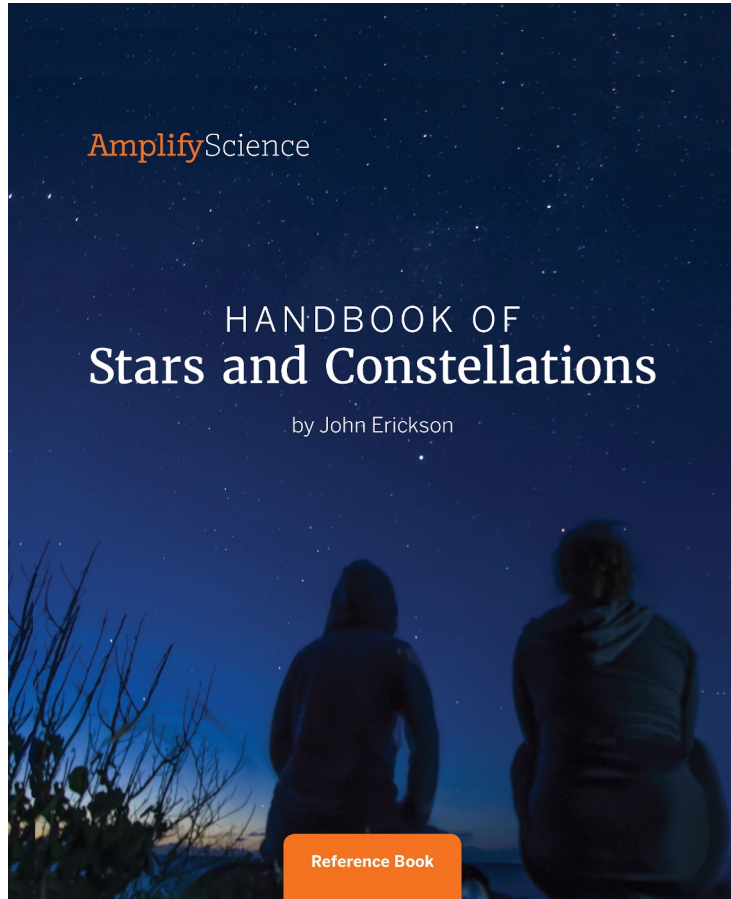


What are your **first ideas** about different objects in the sky during the day and at night?

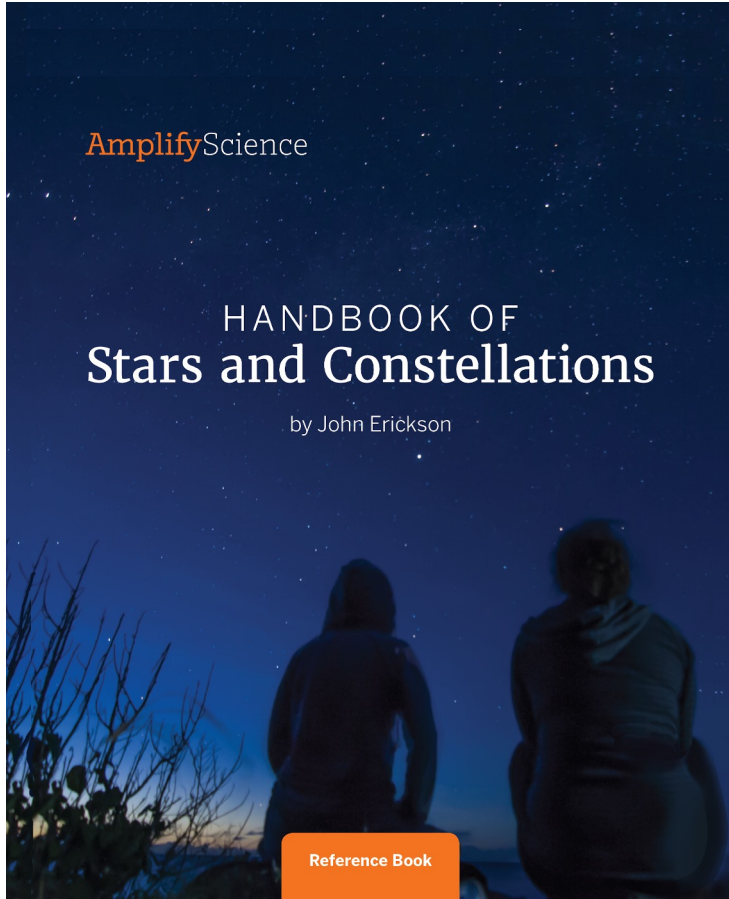
Activity 4

Previewing the Reference Book





This kind of book is a **reference book**. Scientists often refer to reference books when they are looking for **information about a topic** they are studying.

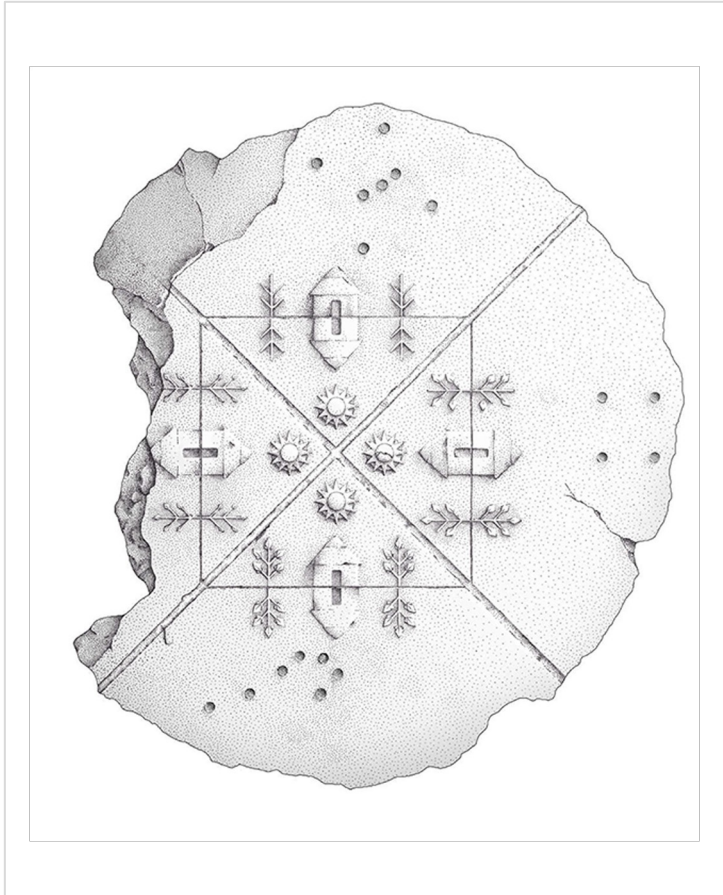


Preview the book. Talk about what you notice.



What was something **interesting** that you read or saw in the book?

How could we **find specific information** in the book?



We will continue to **investigate** the artifact as we learn more about stars and other objects in the universe.

End of Lesson



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