

# 45.1 The Solar System (part II)

Physical  
Science

Summarize main points from each video.

Video Title / topic

Video Title / topic

Video Title / topic

# Topic Introduction



**Summarize your understanding of each paragraph.**

This topic emphasizes opportunities for “cross-curriculum” connections. As introduced in Topic 44, our understanding of the Solar System has improved significantly in the past decades – but continues to evolve.

Artists, social scientists, and natural scientists play a role in how we perceive the Solar System. Planets, in particular, have intrigued philosophers and artisans for thousands of years. Our evolving understanding of the Solar System is reflected in these ideas.

Recall from a prior topic, there are many types of art – visual art, language art, sensory art, vocal and musical arts to name a few. Throughout history, there has been an influence of art toward human understanding of the Solar System.

Here, without fully separating from science and its importance, students are encouraged to identify and explore connections between our present-day understanding of the Solar System and other disciplines such as art and philosophy.

# Read/Summarize Text



1. Read the passage.
2. Underline key expressions in each sentence.
3. Re-write each word (or expression) you underlined.
4. Summarize the passage.

*Connections across content. Solar System science & other disciplines.*

There are overlapping concepts between Earth and planetary science, life science, chemistry, mathematics & other subjects. Honeycutt Science encourages students to identify & explore these various connections. Examples include:

- *The Solar System & Literature*
- *The Solar System & Visual Art*
- *The Solar System & Music*
- *The Solar System & Ancient Civilizations*
- *The Solar System & Construction*
- *The Solar System & Sports*
- *The Solar System & Agriculture*
- *The Solar System & Sprawl*
- *The Solar System & Food*

*Arts*  
*Culture*  
*Society*

Honeycutt Science

*Re-write words you underlined*

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*Using a complete sentence, summarize or rephrase the passage*

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# Review for Understanding

Review and examine how you might make a connection between history and present-day thinking of our Solar System.

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## History and the Solar System

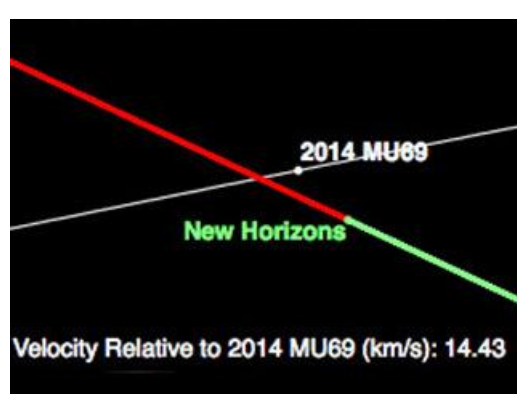
The Ancient Greek philosophers refined astronomy, dragging it from being an observational science, with an element of prediction, into a full-blown theoretical science. The ancient astronomers used astronomy to track time and cycles, for agricultural purposes, as well as adding astrology to their sophisticated observations.

As a maritime people, the Greeks understood the value of reading the stars as an aid to navigation and, by the 6th Century, Ancient Greek seafarers of the Ionian culture could read the stars like a map, and understood the patterns and motions of the celestial sphere.

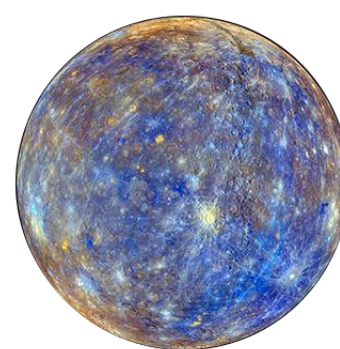
<https://explorable.com/greek-astronomy>

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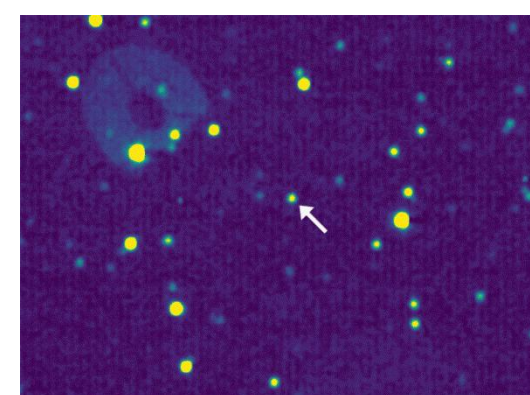
Since the earliest times, humans have made observations of the night sky. These observations, particularly of the Earth, Moon, Sun and planets, led to the development of models to explain the movement of these natural satellites as seen in the night sky.



NASA Mission



Mercury



Deep Space

Images from: <https://NASA.gov>

With additional research, a student would discover a rich set of new insights identified through the centuries ... regarding Earth, the Solar System, and the Universe. Some examples include:

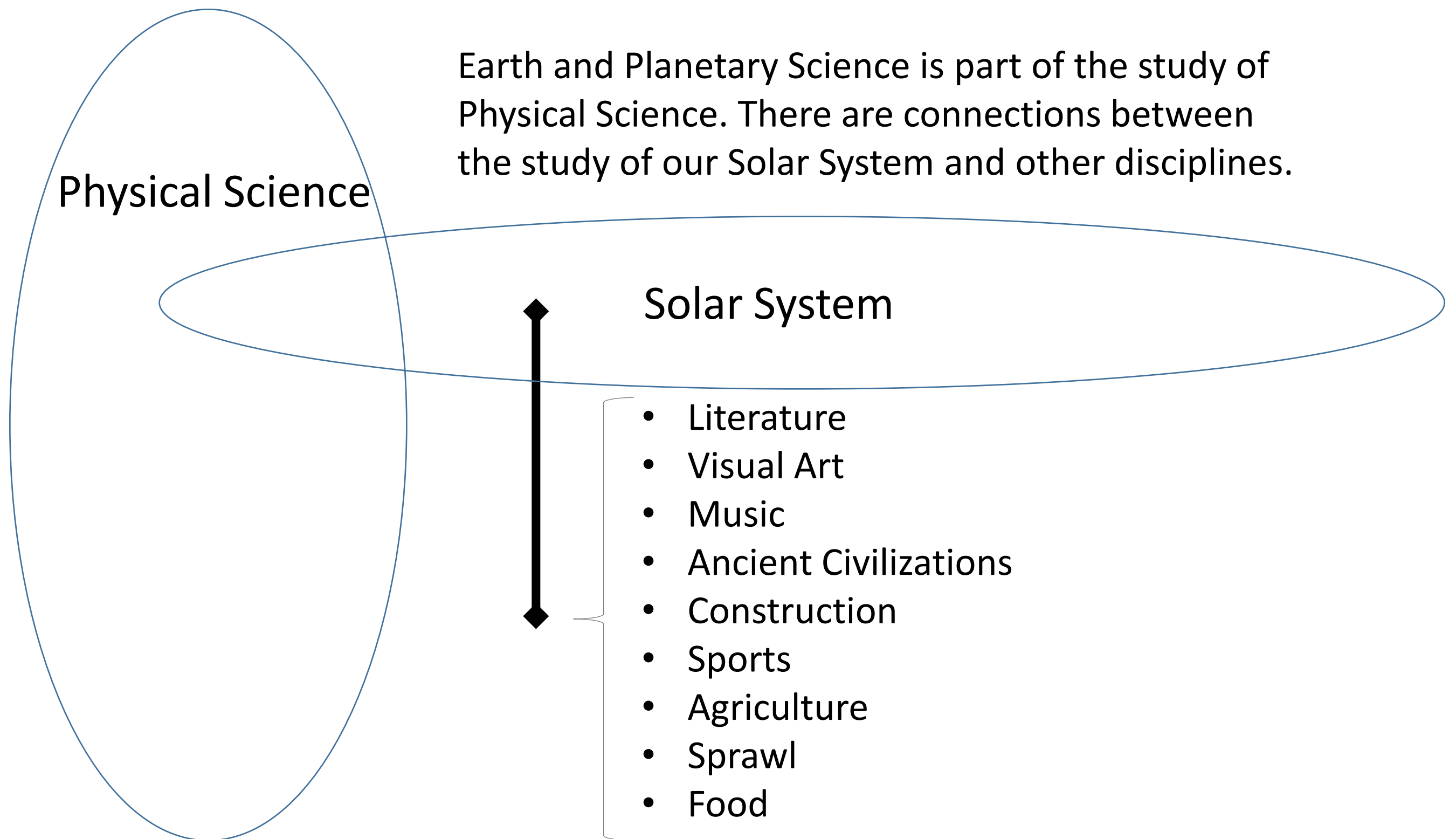
- Ptolemaic model
- Copernican model
- Tycho Brahe's model
- Kepler's laws
- Galileo discoveries
- Newton and gravity

Adapted from: <https://www.sciencelearn.org>

# Copy the Illustration



## Copy Illustration and text explanation



## Sketch (Copy) the Illustration Here



# Choose Your Work



- Choose one of the ways to complete your work.

## Lesson

Present a physical science lesson to the class.

Include learning objectives.

Strive for 5 minute presentation.

Draw from prior topics covered in class – but extend the material to new ideas.

*Individual or small group*

## Research Paper

Turn-in a physical science oriented research paper.

Include/cite references used.

Strive for 300 total words (without “fluff”).

Either neatly hand-write paper or more ideally use computer to complete your paper.

*Individual only*

- Select an Area to Investigate. Please a check mark on one of these.
  - ☐ *Our Solar System & Literature*
  - ☐ *Our Solar System & Visual Art*
  - ☐ *Our Solar System & Music*
  - ☐ *Our Solar System & Ancient Civilizations*
  - ☐ *Our Solar System & Construction*
  - ☐ *Our Solar System & Sporting Events*
  - ☐ *Our Solar System & Agriculture*
  - ☐ *Our Solar System & Urban Sprawl*
  - ☐ *Our Solar System & Food*
- Begin your work upon instructor’s permission.