

# 11.1 What is Physical Science?

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.**

You are about to study Physical Science. This subject area deals with the physical sciences: the branches of natural science and science that study non-living systems, in contrast to biological sciences.

This year, you will be introduced to three important types of physical science: Chemistry, Physics, and Earth/Space Science. Probably, you already know some things about each of these. Prior knowledge will be helpful to you as you study Physical Science.

You will learn some things about chemistry. Chemistry is the study of matter. You will be introduced to some words like “the Periodic Table” and “acids, bases, and solutions.”

You will learn some things about physics – such as “motion” and “work and energy.” Also you will learn some things about our planet Earth and the solar system that you may have been curious about.

# 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.

*Title of Passage.*

1

This year's science will introduce you to physics. There are much more advanced courses in physics you may want to study in the future – including in college classes.

2

This year, you will be introduced to “waves” because they are a predominant part of modern physical theory. You will also learn about the basics of motion and electromagnetism.

Some examples of advanced topics that won't be covered in this introductory course are thermodynamics, geophysics and Nuclear Physics.

Reference URL.

*Re-write words you underlined*

3

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

4

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# Read Text for Comprehension

Read this article for deeper understanding. No summary is required, although you may want to circle, underline, or mark key ideas and words.

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## From Wikibooks

While this course will only introduce some concepts in chemistry – it is a very interesting subject. Remember that Physical Science deals with non-living things. Chemistry is important to understand for living things also – but that is called organic chemistry.

The type of chemistry you will be exposed to in this course is called “in-organic chemistry” – which is the chemistry of non-living things.

Inorganic chemistry is the study of the synthesis, reactions, structures and properties of compounds of the elements. This subject is usually taught separately from organic chemistry, which concerns the synthesis and reactions of compounds of carbon (typically containing C-H bonds).

Inorganic chemistry encompasses the compounds - both molecular and extended solids - of everything else in the periodic table, and overlaps with organic chemistry in the area of organometallic chemistry, in which metals are bonded to carbon-containing ligands and molecules.

Inorganic chemistry is fundamental to many practical technologies including catalysis and materials (structural, electronic, magnetic,...), energy conversion and storage, and electronics. Inorganic compounds are also found in biological systems where they are essential to life processes. (1)

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## From ACS Chemistry for Life

Inorganic chemistry is concerned with the properties and behavior of inorganic compounds, which include metals, minerals, and organometallic compounds. While organic chemistry is defined as the study of carbon-containing compounds and inorganic chemistry is the study of the remaining subset of compounds other than organic compounds. (2)

(1) [https://en.wikibooks.org/wiki/Introduction\\_to\\_Inorganic\\_Chemistry](https://en.wikibooks.org/wiki/Introduction_to_Inorganic_Chemistry)

(2) <https://www.acs.org/content/acs/en/careers/college-to-career/areas-of-chemistry/inorganic-chemistry.html>

# Draw Illustration



Copy and Label the Illustration in the Space Provided

## Natural Sciences

### Life Sciences

- *Biology*
- *Organic Chemistry*
- *Ecology*
- *Medicine/Anatomy*

### Physical Sciences

- *Physics*
- *Inorganic Chemistry*
- *Geology & Climate*
- *Astronomy*

[www.honeycuttscience.com](http://www.honeycuttscience.com)

**Draw (Copy) the Illustration Here**

# Interpret a Graph



Write the title of the graph \_\_\_\_\_

Circle the type of chart this represents

*Bar Chart   Line Chart   Pie Chart   Other*

If applicable,

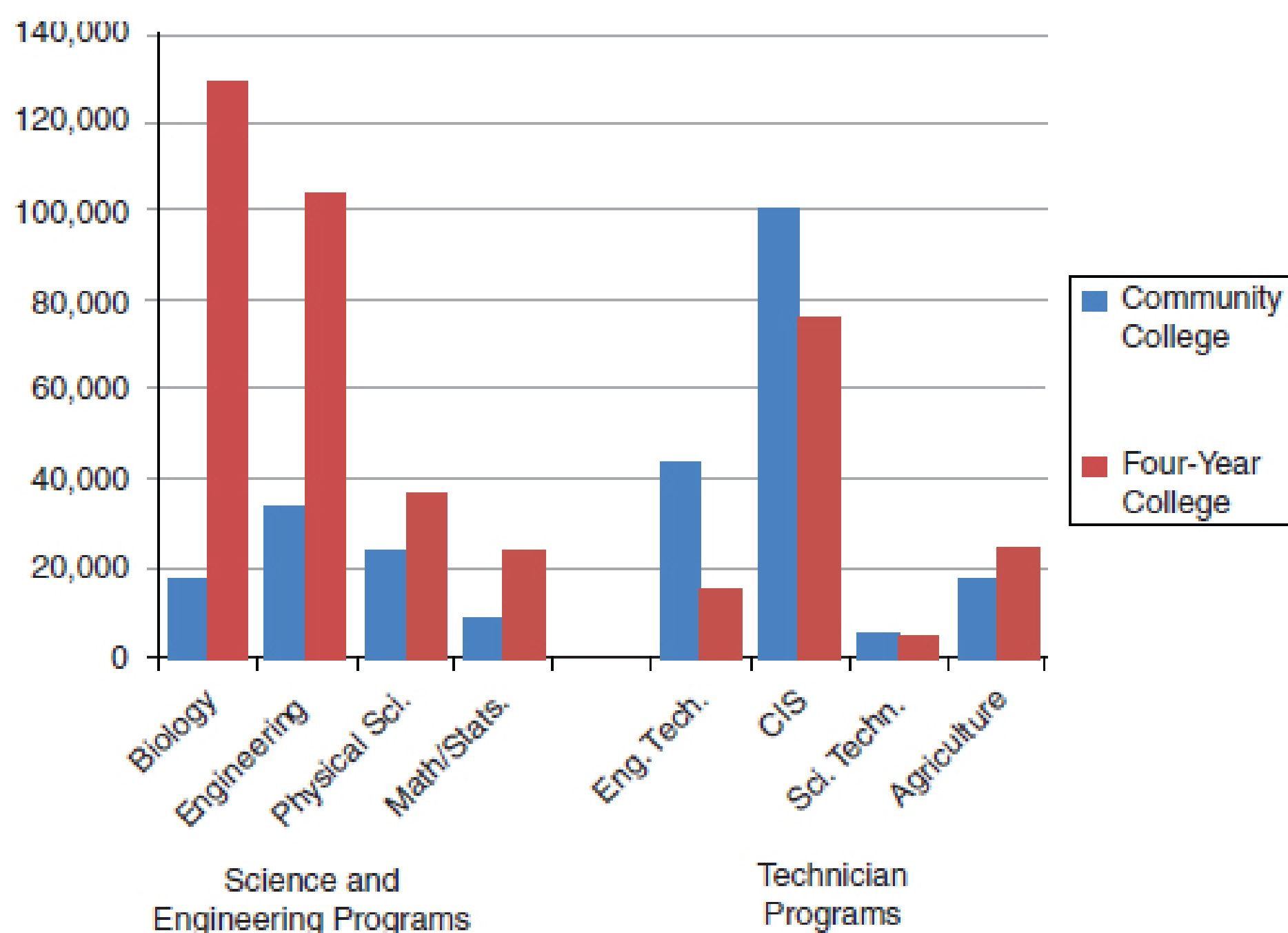
What does the X-axis represent \_\_\_\_\_

What does the Y-axis imply \_\_\_\_\_

Summarize what this graph represents or conveys

<https://www.nap.edu>

## THE COMMUNITY COLLEGE PATHWAY TO A STEM CREDENTIAL





# Show-Off Your Smarts!



## Instructions

- Complete as an individual or small group.
- Discuss your ideas/answers/responses in a small group.
- Select one person to present your responses to the class.

**Q1. How can this information be applied to a young-person's life?**

**Q2. How does this information apply to (or impact) communities?**

**Q3. When do scientists need to apply this information? How?**

**Q4. How would a person from 100 years ago view this information?**

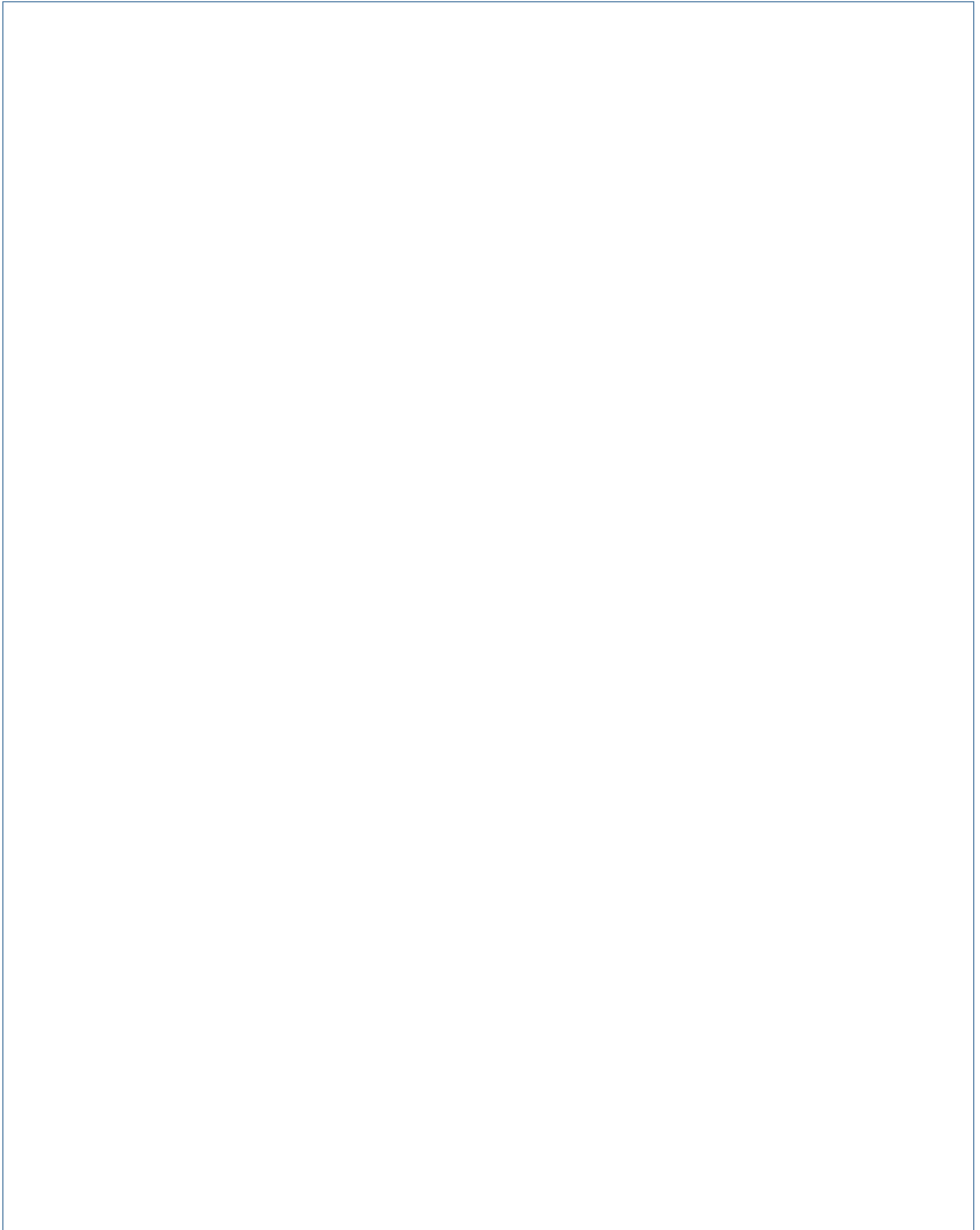
**Q5. How does this topic connect to other science topics or math?**

*Write down at least three words introduced or covered by this topic.*

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

# Make a Poster

In the space provided here, create/draw a poster which conveys the concepts you have learned on this topic.

A large, empty rectangular box with a thin blue border, intended for the student to create a poster. The box occupies most of the page below the instructions.