

13.1 Connections Across Content



Summarize main points from each video.

Video Title / topic _____

Video Title / topic _____

Video Title / topic _____

Topic Introduction



Summarize your understanding of each paragraph.

Science is a logical activity. Science identifies, builds and organizes knowledge. Science knowledge can be tested. Scientists test ideas that other scientists have identified through observation. Through science, people can explain and predict things about the universe.

Modern science is broadly divided into the natural sciences and the social sciences. This class (biology) along with physical science, earth science, and chemistry are all natural sciences. Natural science studies and deals with the material world.

While this class is NOT a social science class, you may be interested to learn that social sciences deal with the study of people and societies. Psychology, sociology, anthropology, and history are among the many social sciences. (You do not need to recall this paragraph).

Natural science can be divided into two main branches: life science and physical science. You are studying biology which is a “life science” – the study of living things. Other students in the school are studying physical science (the study of non-living things.)

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.

Biology is taught as a “life science” – whereas the other three science classes at our school are as a “physical science.”

Four natural science subjects are presently taught at our school. Biology, physical science, earth/space science, and chemistry are each considered natural sciences. But, biology is the only “life science” course presently taught in our school. The other three are taught as “physical sciences.”

Still, there are some connections between biology, earth science, and chemistry. The earth, obviously supports life. And life is made up of atoms and molecules (chemistry).

Reference URL.

Re-write words you underlined

Using a complete sentence, summarize or rephrase the passage

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.

More About Biology ...

Biology - This field encompasses a set of disciplines that examines phenomena related to living organisms. The scale of study can range from sub-component biophysics up to complex ecologies. Biology is concerned with the characteristics, classification and behaviors of organisms, as well as how species were formed and their interactions with each other and the environment.

Biological Fields of Study

The biological fields of botany, zoology, and medicine date back to early periods of civilization, while microbiology was introduced in the 17th century with the invention of the microscope. However, it was not until the 19th century that biology became a unified science. Once scientists discovered commonalities between all living things, it was decided they were best studied as a whole.

Key Developments in Biology

Some key developments in biology were the discovery of genetics; Darwin's theory of evolution through natural selection; the germ theory of disease and the application of the techniques of chemistry and physics at the level of the cell or organic molecule.

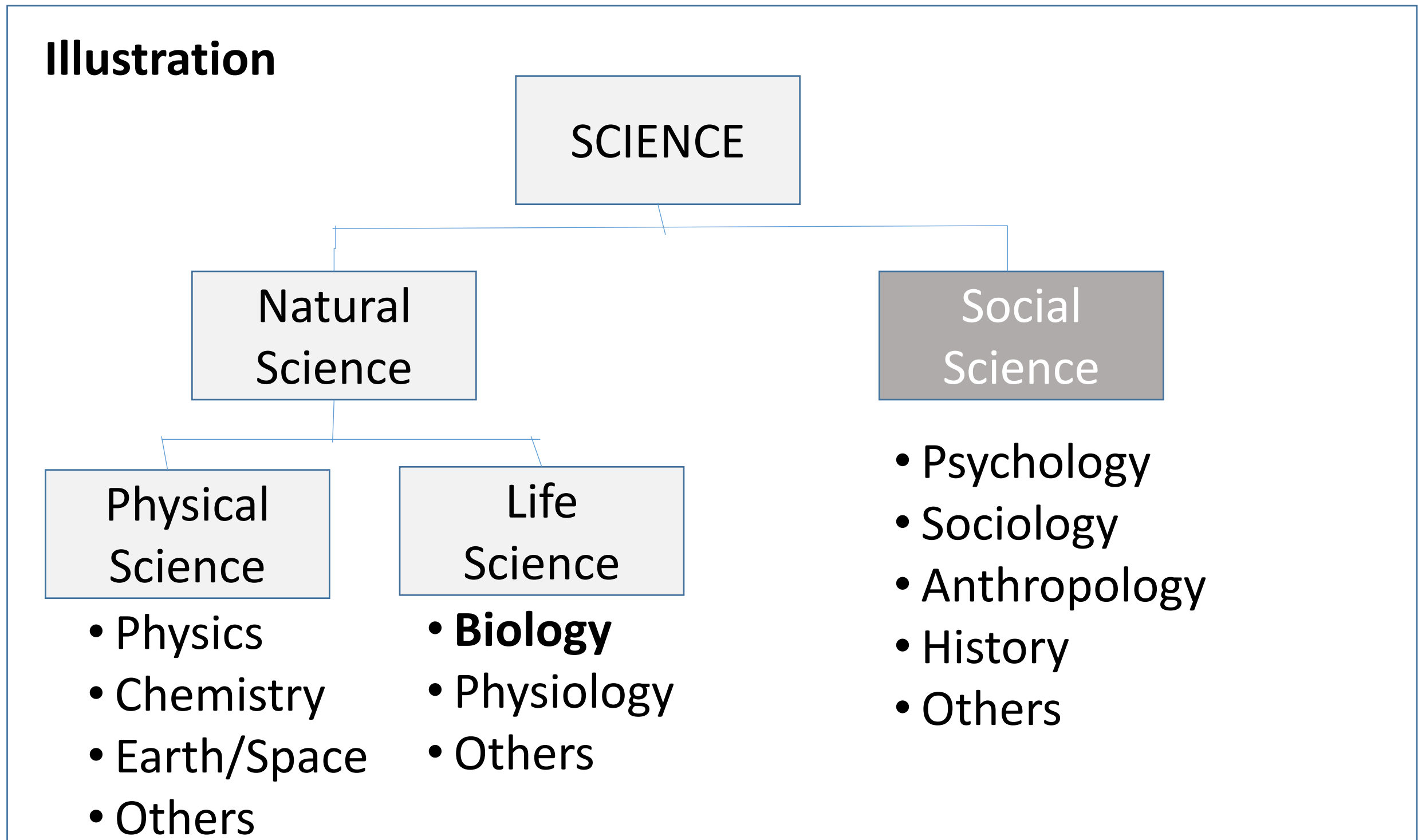
Subdisciplines of Biology

Modern biology is divided into subdisciplines by the type of organism and by the scale being studied. Molecular biology is the study of the fundamental chemistry of life, while cellular biology is the examination of the cell; the basic building block of all life. At a higher level, anatomy and physiology looks at the internal structures, and their functions, of an organism, while ecology looks at how various organisms interrelate.

Draw Illustration



Copy and Label the Illustration in the Space Provided



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 _____

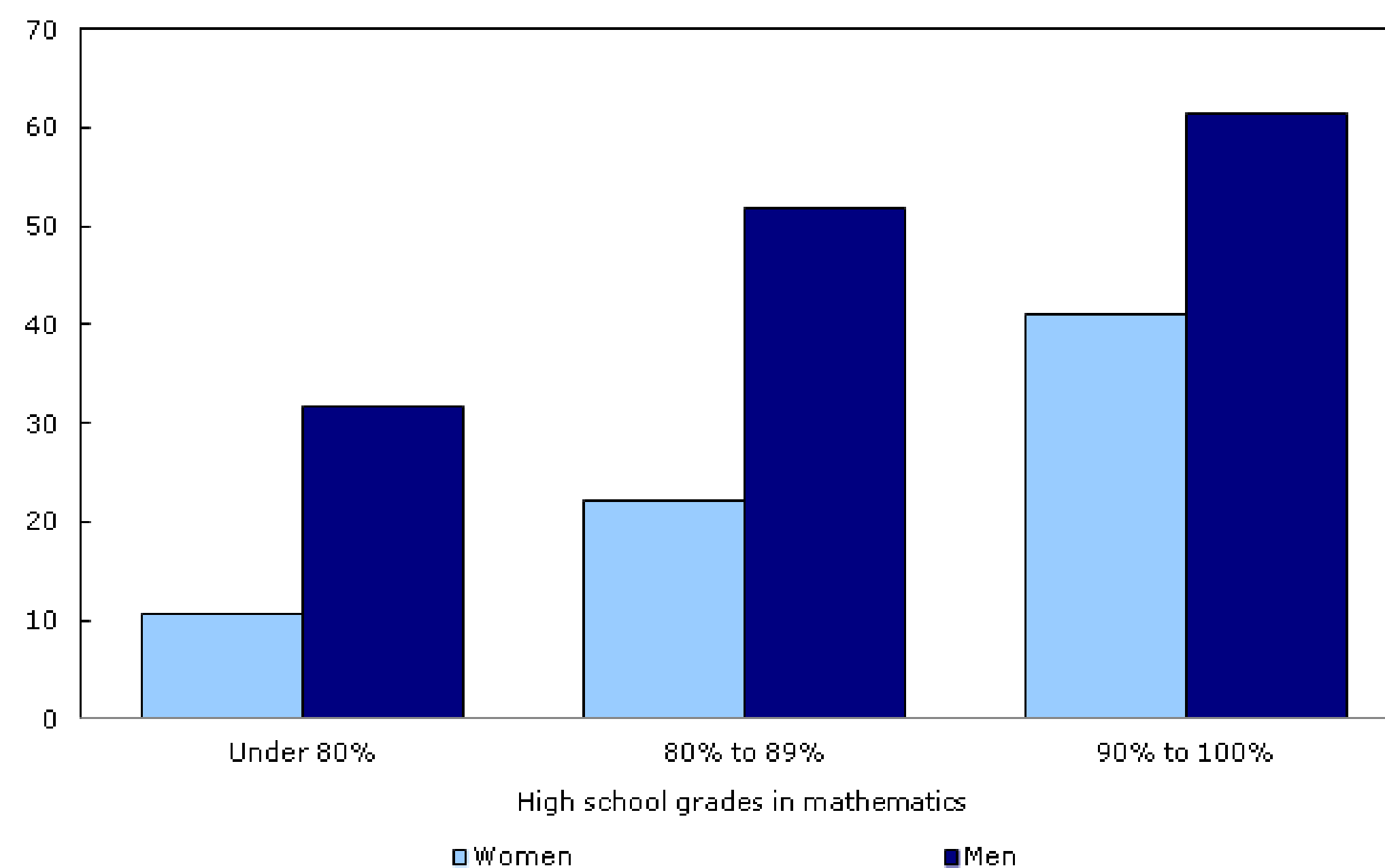
What does the Y-axis imply _____

Summarize what this graph represents or conveys

<http://www.statcan.gc.ca>

Canadian Statistics.

% **STEM enrollment grouped by scores in mathematics.**



Note: STEM includes science, technology, engineering, mathematics and computer science.

Sources: Statistics Canada and Human Resources and Skills Development Canada, Youth in Transition Survey (YITS); Organisation for Economic Co-operation and Development, Programme for International Student Assessment (PISA), 2000 to 2010.

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?

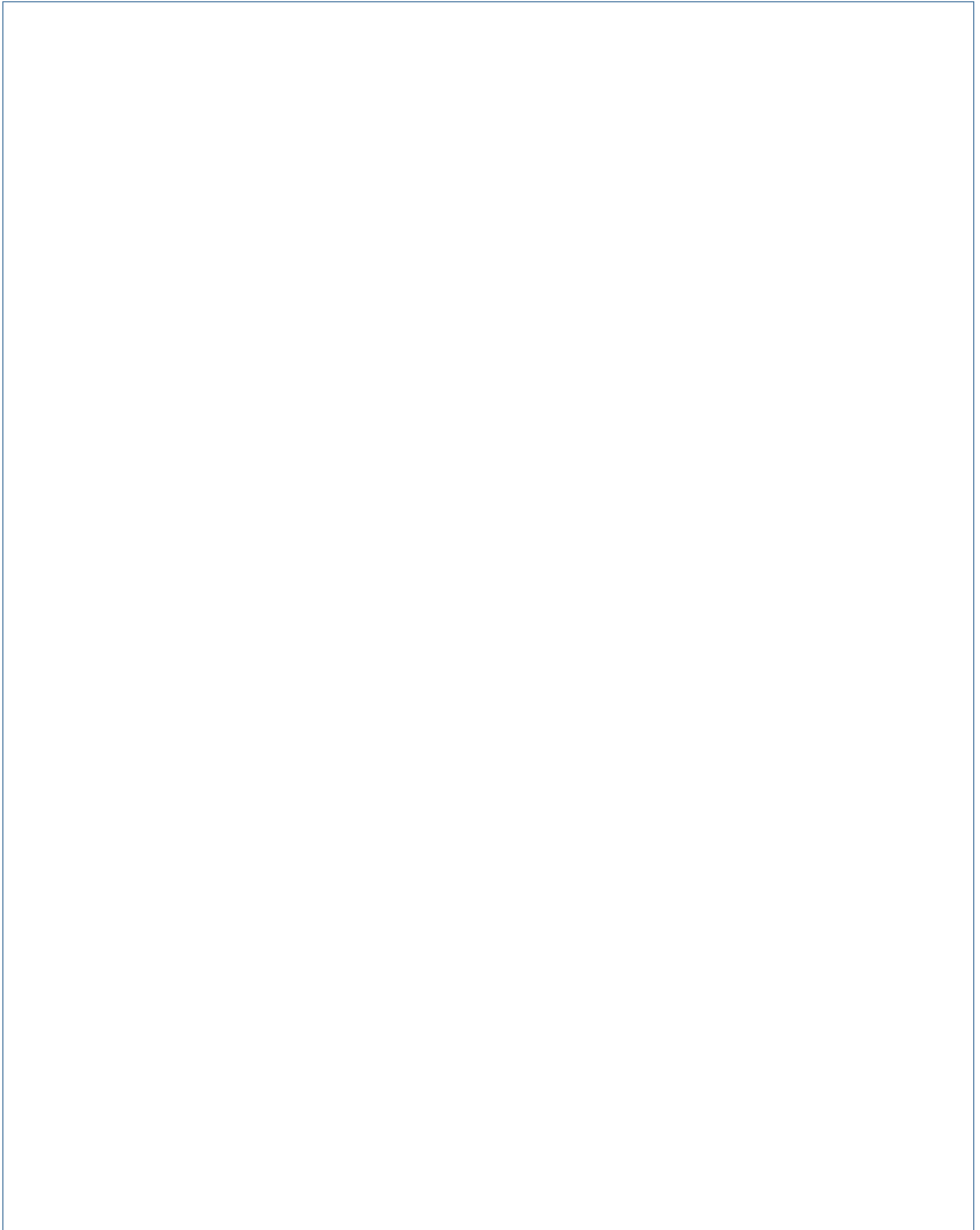
Q5. How does this topic connect to other science topics or math?

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.