14.1 Maps

Earth Science

Summarize main points from each video.

Video Title / topic _____

Video Title / topic _____

Video Title / topic _____

Topic Introduction

Summarize your understanding of each paragraph.

Cartography is the study and practice of making maps. Combining science, aesthetics, and technique, cartography builds on the premise that reality can be modeled in ways that communicate spatial information effectively.

Modern cartography constitutes many theoretical and practical foundations of geographic information systems.

The earliest known map is a matter of some debate, both because the term "map" isn't well-defined and because some artifacts that might be maps might actually be something else.

In ancient China, geographical literature dates to the 5th century BCE. The oldest extant Chinese maps come from the State of Qin, dated back to the 4th century BCE, during the Warring States period.

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.**

Fundamental problems of traditional cartography.

1

2

1. Set the map's agenda and select traits of the object to be mapped. This is the concern of map editing. Traits may be physical, such as roads or land masses, or may be abstract, such as toponyms or political boundaries. **2.** Represent the terrain of the mapped object on flat media. This is the concern of map projections. **3.** Eliminate characteristics of the mapped object that are not relevant to the map's purpose. This is the concern of generalization. **4.** Reduce the complexity of the characteristics that will be mapped. This is also the concern of generalization. **5.** Orchestrate the elements of the map to best convey its message to its audience. This is the concern of map design.

Reference URL.

Re-write words you underlined

3

_____ _____ _____

_____ _____ _____

Using a complete sentence, summarize or rephrase the passage

4

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.

Cartography majors learn how to make maps. They study math, computer, and other techniques, including the interpretation of aerial photographs and remote-sensing data.

Cartographers and photogrammetrists collect, measure, and interpret geographic information in order to create and update maps and charts for regional planning, education, emergency response, and other purposes.

Work Environment

Although cartographers and photogrammetrists spend much of their time in offices, certain jobs require extensive travel to locations that are being mapped.

How to Become a Cartographer or Photogrammetrist

A bachelor's degree in cartography, geography, geomatics (the discipline that combines the science, engineering, math, and art of collecting and managing geographically referenced information), or surveying is the most common path of entry into this occupation. Cartographers and photogrammetrists must be licensed in some states.

Pay

The median annual wage for cartographers and photogrammetrists was $62,750 in May 2016.

Job Outlook

Employment of cartographers and photogrammetrists is projected to grow 29 percent from 2014 to 2024, much faster than the average for all occupations. The increasing use of maps for government planning should fuel employment growth. For this reason, job prospects are likely to be excellent.

DOL.gov

Draw Illustration

Copy the Illustration in the Space Provided

http://map.asherrard.us/usa-map-outline/

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,

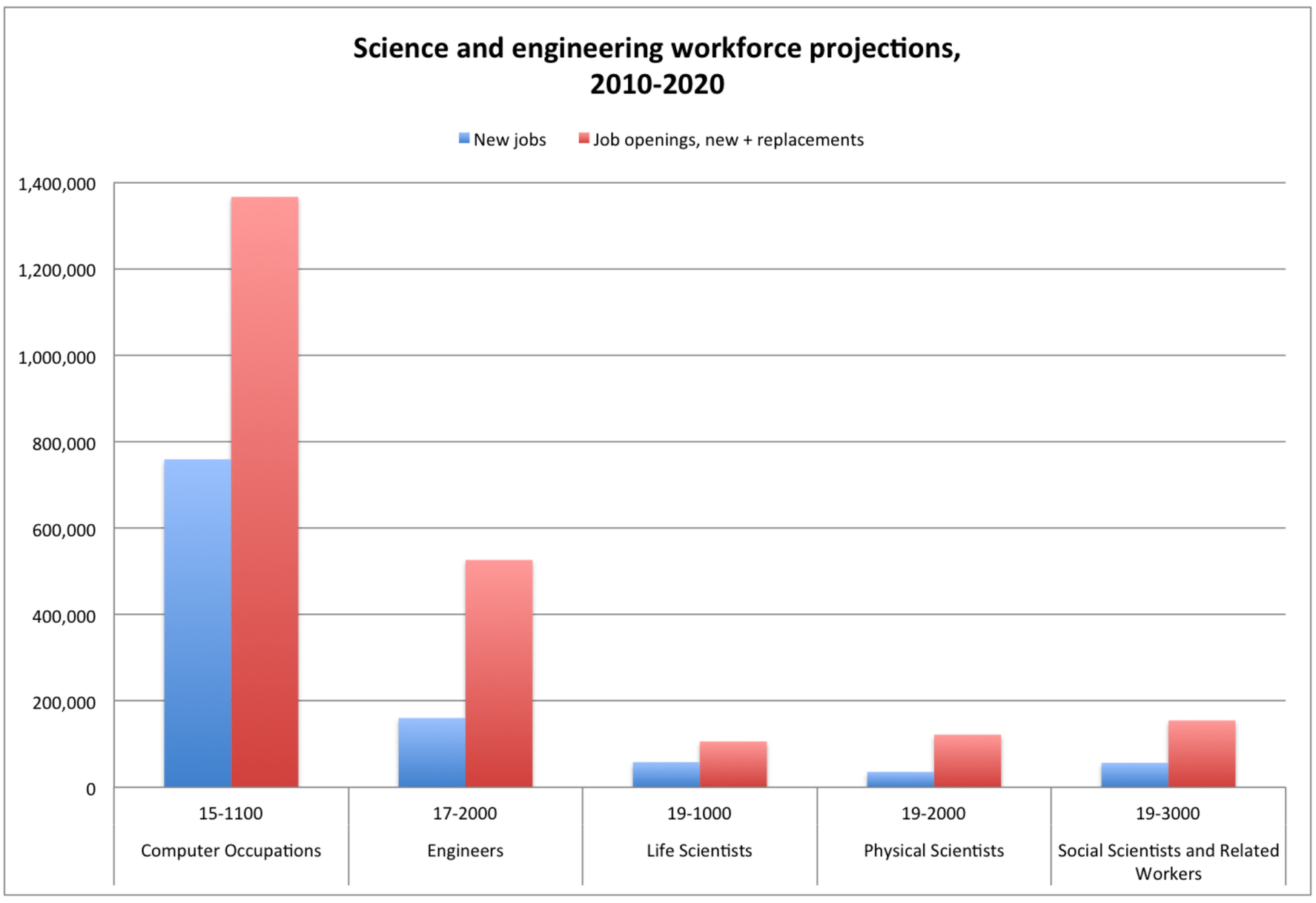
What does the X-axis represent _____

What does the Y-axis imply _____

Summarize what this graph represents or conveys

_____

http://www.cccblog.org



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.