

Think and discuss

1. Make a list of items of items that you every day.
 - a) PlayStation 4
 - b) Laptop
 - c) Cellphone
 - d) Bluetooth speaker
2. Do you know who invented any of this device of the things on your list?
No, I do not know much of this device of who invented them except from the PlayStation that was create by the company of Sony Computer Entertainment.

Explore the theme

A. Look at the information on these pages and answer the question.

1. Who develop the first helicopter that flew with a pilot? When?
It was developed by the Frenchman Paul Cornu in the year 1907.
2. Who completed the first signal flare? When?
In the 19th century, Benjamin Franklin started work on the signal flare after his death his wife, Martha Coston, spent 10 years completing the invention.
3. Who invented the first life raft? When?
Two inventors Maria Beasley and Horace Carley created early designs for a life raft. Beasley create hers in 1882 while Carley completed his in 1903.
4. Which invention do you think was most important? Why?
Honestly, all invention is important since a lot can happen in this time. Because the helicopter cannot find someone without the signal flare or without the life raft if it is in the ocean. In other words, each they need each other to work.

B. Use correct word to complete definition.

1. Described
2. Invented
3. Machine

Preparing to read

- ### A. The words in blue below are used in the reading passage on pages 115-116.
1. B

2. E
3. D
4. C
5. A

B. Circle the correct word to complete the definitions.

1. Will
2. Won't

C. List three ideas for each category below.

1. List 3 things that float in water

- a) Plastic
- b) Rubber
- c) Wood

2. Three things that sink in water

- a) Stone
- b) Iron
- c) Chains

3. Three things that have a engine

- a) Cars
- b) Planes
- c) Boats

4. Three famous people from history

- a) Da Vinci
- b) Edward Kenway
- c) Martin Luther King

D. Read the first paragraph of the reading passage on pages 115-116. What does invention does it describe? Why does the author describe the inventions as “amazing”?

The invention that he describes is a clock that height is about 23feet tall. The author describes it as amazing because, of his height and every half hour the whole clock came alive: Model birds, dragons, and people star moving.

Understand reading

A. Complete the summary. Use no more than three words for each blank.

1. Engineer
2. Diyarvakir
3. Eight hundred years
4. Elephant clock
5. A book that he wrote
6. Clock, hand-washing machines, and pumps

B. How does al-Jazari's elephant clock work?

1. C
2. D
3. B
4. E
5. A

C. Note answers to the question below

1. The author says that Al- Jazari was probably one of the greatest engineers in history.
2. He used: Some historians call him "the father of modern-day engineering."

Developing reading skills

Reading skills

A. Look at the **bold** pronouns in the paragraph below.

1. He = is singular and is masculine
2. It = Singular, gender neutral
3. Them = Plural, gender - neutral

B. In the paragraph above, draw an arrow to the noun that each pronoun refers to.

1. He > Al Jazari
2. It > The book
3. They > The machines

The golden age

Before viewing

A. Look at the title of the video. The phrase Golden Age is used to talk about times in history when people achieved great things. What period in your country's history could be described as a golden age?

A moment that is considered the golden age in Puerto Rico is the age of the sugar (1815- 1870) and the following years of coffee (1870-1900) these industries Puerto Rico made Puerto Rico appear in the map.

B. The words below are used in the video. Match each word with the correct definition.

1. Impact
2. Foundations
3. Ingenious
4. Civilization

C. Read the information about the dark age. Answer questions.

1. Is named like that after the Roman Empire fell and got forgotten.

2. Because a lot of great achievement happen in that era that help Europe and the world.

While viewing

- A. Watch the video. What are two reasons why the librarian believes the Dark Ages should be known as “the Golden Ages”?
 - a) There were many great discoveries made during this time
- B. Watch the video a second time. Match sentence parts to make true sentence.
 1. Ibn al Haytham – explain how our eyes work (c)
 2. Abbas ibn Firnas – had early ideas about flying (b)
 3. Al Jazari – made discoveries about engineering (a)

After viewing

- A. What modern technology may have benefited from the work of the inventors below? Use information from the video and the reading passage on pages 115-116.
 1. Ibn al-Haytham: He benefit the cameras that now we used like the phone camera and modern Cameras that we used in photography industries.
 2. Abbas Ibn Firnas: Thanks to his idea about man can fly this inspired a couple of brothers to invent the first machine that flies in other words airplanes.
 3. Al-Jarazi: He discover the art of engineering that make circle motion do a line motion and thanks to that we got trains and cars but his most important invention is the Elephant clock.

B. Which of the people in activity A do you think made the most useful discoveries? Why?

I think the most useful inventor came from Al-Jarazi because of his discover in the engineering now we have cars and trains to move us around also thanks to his most important work The elephant clock watches were made so no one would be late if we have something to do in a exact hour.

Preparing to read

A. The words in blue below are from the reading passage on pages 122-123.
Match the correct form of each word to its definition.

1. Aim
2. Reasons
3. Brilliant
4. Celebrate
5. Grew up
6. Huge
7. Programs
8. Discuss

B. List three ideas for each category below.

1. Three things you celebrate every year
 - a) Birthday
 - b) Christmas
 - c) Thanksgiving

2. Three reasons to study English
 - a) Speech
 - b) Writing
 - c) Reading

3. Three brilliant scientists
 - a) Albert Einstein
 - b) Isaac Newton
 - c) Charles Darwin

C. Skim the reading on pages 122-123. Who is the reading about? What was her great achievement? Check Ideas as you read the passage.

The text is talking about Ada Lovelace. Her greatest achievement is that she was the first person of programming a computer.

Understanding the reading

- A. Why has Ada Lovelace become a role model?
 - c. She is a woman who made a great achievement in science and mathematics.
- B. Complete the summary with information from the reading on pages 122-123.
 1. Computing
 2. Mathematician
 3. 17
 4. Charles Babbage
 5. Work on math
 6. Computer
 7. Computer program
 8. October 16th
- C. Note answer to the question below.
 1. The author uses the adjective “brilliant” to describe her skills in math and science
 2. He said: “In this way, Ada Lovelace continues to be a role model for young women around the world.

3. The author said that the Analytical engine is consider the model of the first computer. Also, Ada Lovelace step-by-step calculation is the first program.

D. What are three things that Al-Jazari and Ada Lovelace have in common?

Al- Jazari and Ada Lovelace both were brilliant people in their era. Also, both work with engineering and math since one create the hour telling name clock and the other made the first program for the computer. At last they both show that they were a passionate in what they do.