

GREAT INVENTIONS

THE GLASSES

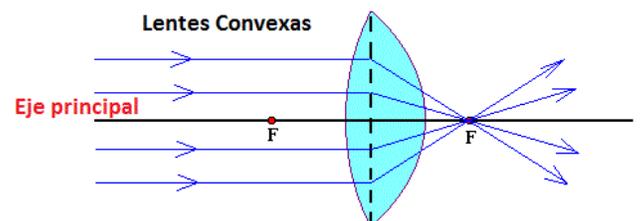
Last week, I accompanied my father to the optometrist to get some new glasses. He can't read without his glasses, so it was urgent. I began to think about how people like my father were able to see before glasses were invented.

In the past, when sight began to deteriorate, nothing could be done to help. Gradually, these people were going blind. That is why some scientists put a lot of effort into finding a solution.

First, the magnifying glasses were invented, like the one I have on my eye in the picture. The oldest reference to the use of rudimentary magnifying glasses dates back to the 5th century B.C. Egyptians. Much later, Seneca, a tutor of the Roman emperor Nero, used glasses filled with water to be able to increase the size of the letters and read them. The same Emperor Nero used an emerald as a lens to be able to see the details of gladiator fights in the Roman Coliseum.



The use of a convex lens to get a wider image is discussed in the book of optics by a mathematician named Alhazen around 1021. He discovered the law of refraction, which is the foundation of corrective glasses.



An interesting fact, the flat crystals of smoky quartz were used in China as sunglasses during the twelfth century.



But it was in the famous Murano glass factories of Venice, Italy that the first glasses with corrective lenses were manufactured of glass. In the thirteenth century, skilled craftsmen mounted a convex lens on a frame that could be made of iron, shell, or wood.



At that time, it was not known that there were different visual defects, and they would gradually worsen. Today, we know that among other visual defects, there is myopia, astigmatism, and farsightedness. My father's problem is that he is myopic.

The modern glasses my father wears are also known in other countries as lenses, spectacles, goggles, binoculars, or glasses. All these words that reference the same object or thing are called synonyms and can be used interchangeably.



There are also special glasses to protect the eyes in work or sports activities, and there are glasses that are used only as toys. For people who can't see well, it is a relief to know that with glasses, they can see correctly. Remember that the eyes are our means to perceive the images of the world, and they require care and attention.



Remember to go to the ophthalmologist or optometrist and watch television or computer at a safe distance every year. These tips will help to keep your vision strong.



Name _____

Date _____



THE GLASSES



Answer the questions.

1. When did I accompany my father to the optometrist?
 - a. 30 days ago
 - b. 20 days ago
 - c. 15 days ago
 - d. 7 days ago
2. Who discovered the law of refraction?
 - a. Seneca
 - b. Alhazen
 - c. Nero
 - d. Murano
3. Who were the first to have magnifying glasses?
 - a. The Romans
 - b. Egyptians
 - c. The Chinese
 - d. The Italians
4. What did Nero use to see gladiators?
 - a. A crystal
 - b. A tutor
 - c. An emerald
 - d. A glass of water
5. Who was Seneca?
 - a. An Arab
 - b. Nero Tutor
 - c. Nero's father
 - d. An astronomer
6. Who wore the first sunglasses?
 - a. The Arabs
 - b. The Romans
 - c. The Chinese
 - d. The wet ones
7. Where were the first glasses made of glass?
 - a. In China
 - b. In Rome
 - c. In Murano
 - d. In Arabia
8. What visual defect does my father have?
 - a. Astigmatism
 - b. Myopia
 - c. Farsightedness
 - d. Presbyopia
9. Glasses are also called _____.
 - a. Eyelets, dark circles
 - b. Lenses, glasses
 - c. Venice, carvings
 - d. Alhazens, eyelets
10. What would older people do if they didn't have glasses?

