

The **Snellen chart** measures a person's eyesight according to which line they can read from 20 feet (6 metres). 20 / 20 (or 6 / 6) vision is normal. 20 / 40 (or 6 / 12) is roughly half as good, and 40 / 20 (12 / 6) twice as good as normal.

Lea symbols are often used to assess visual acuity in children who cannot read.

Do you know of any other ways of measuring visual acuity?



Reading

Glasses

1 Discuss the questions with a partner.

- For you, is wearing glasses positive or negative?
- What is the price range for glasses with lenses in your country?
- Imagine there were no glasses or contact lenses. How many of the people who you work with every day would not be able to work?

2 Read the text. Match these titles with paragraphs A–F. One title is not needed.

- 1 The social effects of glasses _____
- 2 How glasses are made _____
- 3 Sight in the developing world _____
- 4 The invention of glasses _____
- 5 How glasses work _____
- 6 An important invention _____
- 7 The limited life of eyes _____

3 Decide whether these statements are true (T) or false (F).

- 1 Most people of 45 need reading glasses.
- 2 Scientific progress in the Renaissance led to the invention of glasses.
- 3 Haloes are an example of an aberration.
- 4 A squint is a focusing problem.
- 5 People with hyperopia need glasses for reading.
- 6 Glasses doubled the hours that people could work in a day.
- 7 Cheaper glasses would help the economies of developing countries.

4 Do you know of any charity that helps restore vision to people in the developing world? Tell the group about it.



THE IMPORTANCE OF SEEING CLEARLY

A

If you had to make a list of ten inventions that have changed the world, glasses would be on it.

B

Most people's eyes can work efficiently for only about 35 years, and after that they may need reading glasses. 800 years ago there was no such thing as correcting sight and early in life almost everyone became disabled by failing eyesight.

C

Glasses were invented in the fourteenth century and very quickly spread throughout the world. Their invention was vital to the creative and intellectual progress of the Renaissance – a period of rapid development in mathematics, science, commerce, medicine, and art.

D

Spectacle lenses correct focus, and can be used to correct other problems too, such as aberrations (seeing ghost images, haloes, waves, or rainbows) and squints (strabismus), when the two eyes do not point in the same direction. However, their most common use is to correct long-sightedness (hyperopia) – where you cannot focus on near objects, short-sightedness (myopia) – where you cannot focus on distant objects, and the loss, through ageing, of the eye's ability to change focus (presbyopia).

E

The invention of glasses freed people from the effects of ageing. At the point in their lives when their knowledge and skills were at their highest level, people could continue to read, do accounts, write, and do small-scale, detailed work. Glasses have effectively doubled the length of time one can expect to live a productive life.

F

The link between glasses and poverty can be seen in developing countries today. The World Health Organisation says that 28 million people in developing countries, where a pair of glasses can cost several months' salary, are blind from treatable conditions. Educated people like engineers and teachers have to retire early, and millions never learn to read, simply because they cannot see.

