

Paper

Paper surrounds us in everyday life. From books to packaging to money, paper plays a huge role in our day-to-day existence. Paper is usually defined as a thin material made from plant and textile fibers. Unlike fabric, which can be made up of similar materials, paper is not woven. Instead, it is made from pulp — a soft blended puree of usually soaked, cooked and blended material. Although often thought of as made from trees, wood-based papers only appeared in the 19th century as part of the continuous industrialization of the paper-making process.

Nowadays almost all paper is made using industrial machinery, although handmade paper is still prevalent in some parts of the world and has become a means of artistic expression.

Materials similar to paper can be found all throughout history. Some of the most common ones are papyrus, amate and parchment. Papyrus, made in ancient Egypt, is a thick material used for writing. It is made from the papyrus plant by laying strips of the plants side by side first vertically, then horizontally, and pounded together. The word "papyrus" is incidentally where we get the word "paper" from. Amate is a type of "paper" made in pre-colonial Mexico out of tree bark. And parchment is made out of heavily prepared animal skin. None of these can truly be considered paper, however, as paper implies a disintegration of its source material that is then pressed into even sheets.

True paper was invented in China during the Han dynasty around 25–220 AD. It was originally made by processing the fibers of the mulberry plant along with old rags, fishing nets and any other bits of old fabric, thus, historically papermaking was a form of recycling. Originally paper was primarily used for wrapping delicate valuable objects such as bronze mirrors and even as protection from poisonous substances. It started to be used for writing on around the 3rd–4th century. By the 6th century toilet paper started to be used, and by around the 10th century paper money first appeared. From East Asia papermaking spread to the Islamic world where the process was refined and turned from a smaller-scale practice into more of an industry. Papermaking didn't become popular in Europe until the invention of the printing press in the 15th century.

Nowadays, almost all paper is made in paper mills. Industrially produced paper tends to be a lot cheaper due to the high production volumes and a lot more uniform. But these advantages come at the expense of the environment. The use of the harsh chemical additives in the mixture leads to air and water pollution. The large amounts of water used in the process is another reason for concern, as is the deforestation resulting from wood pulp being the primary source of paper production.

Recently, there has been a resurgence of hand-made papermaking, both as an art practice and as a way to recycle. Paper can be made out of almost anything organic from cotton to linen to banana peels. This means that paper can easily be made from bits of cloth, old clothes, as well as old paper. This type of material can go a long way. For example, an old cotton t-shirt and some old written on notebook pages could make over a hundred sheets of paper. With multiple colors of cloth and paper, dyes, and specialty items such as dried flowers that can be enclosed into a sheet of paper, the possibilities for paper creation are endless.

Which of the following is NOT one of the negative environmental consequences of paper making?

1. Chemical air pollution.
2. Chemical water pollution.
3. Destruction of forests.
4. Unrecyclable final product.