

History, Medicine through time

Lesson 13 of 30

## **Worksheet:**

**How quickly did ideas about causes of disease change and why did ideas change over time?**

Miss Holland



# Progress from medieval to Renaissance

The medieval period saw very little to no change in the understanding of the causes of disease. Progress was **stagnant**.

The Church taught that God caused disease and promoted the ideas of **Galen**, meaning the Four Humours was the most important idea about the cause of disease. This wasn't often challenged.

The Renaissance saw **slight** changes to the ideas about the cause of disease, but this change was **slow**. Most ordinary people's ideas didn't change and they still used the four humours and also reverted back to supernatural ideas during epidemics like the **Great Plague**.

However some physicians did begin to question this theory and look for alternatives. But, these new ideas were often criticised and still often linked to **miasma** e.g. the idea that 'atmospheres' caused disease. There were also developments in **anatomy** but these had little application to understand the causes of disease.



# Progress in the industrial period

The start of the industrial period saw **little** change. There were some new ideas about the cause of disease, such as **spontaneous generation**, but this was incorrect.

From 1861 there was **great** change to the ideas about the causes of disease. The **Germ Theory** was published and although it was met with rejection at first, **Koch** was able to prove germs did cause disease in the 1880s. This was a **turning point** in the understanding of the cause of disease.



# Progress in the modern period

The modern period saw a **significant** change in the ideas about the causes of disease. This change was even **more rapid in the second half** of the period.

In the first half of the 1900s there were key developments in technology e.g. x-rays were being used to see inside the human body and could detect things such as broken bones.

The second half of the 1900s saw two new and important ideas about the causes of disease. The discovery of **DNA** was made in 1953, meaning the cause of **hereditary** disease were beginning to be understood. There were also many links made between certain **lifestyle** choices and diseases e.g. smoking and lung cancer in the 1950s.



# Individuals

**P:** One reason why ideas about causes of disease changed over time was because of the determination and expertise of individuals.

**E:** Although there were no real significant individuals in the medieval period who changed ideas about the cause of disease, from the Renaissance period individuals produced and shared new ideas. For example, during the Renaissance, **Thomas Sydenham** encouraged physicians to move away from the theory of the Four Humours and to focus on the observation of a patient's symptoms. This began to change ideas about the cause of disease because some people were challenging the old, incorrect ideas. In the industrial period, the scientific methods used by **Pasteur and Koch** gave way to the idea that germs caused disease which would become an accepted belief by 1900. Finally in the modern period, the collaboration and expertise of **Franklin, Crick and Watson** led to the discovery of DNA.

**Ex:** Therefore, without a doubt, individuals were important in changing ideas in most periods. From the Renaissance, individuals questioned, experimented and formed conclusions about the causes of disease, eventually leading to accurate ideas that are still in use today.



# Science and technology

**P:** Another reason why ideas about causes of disease changed over time was because of developments in science and technology.

**E:** The **'scientific method'** emerged during the Renaissance and scientists and doctors began to search for more rational explanations about the causes of disease. This continued into the Industrial period with the Scientific Revolution where new ideas began to replace those that had been discredited. Technology was also important, especially the development of the **microscope**. Although not very powerful in the 1660s, they still allowed the first ever description of bacteria to be recorded and by the mid 1800s, they were powerful enough to study **microbes**, leading to the Germ Theory. Technology rapidly improved from the mid 1900s, such as **CT and MRI scans** which allowed doctors to see inside the human body without surgery.

**Ex:** Therefore science and technology were important in changing ideas because scientific developments encouraged individuals to think in a more modern way, contributing to their new ideas. Developments in technology led to new discoveries about the causes of disease and also allowed a better understanding and more accurate diagnosis of disease.



# Attitudes in Society

**P:** One reason why ideas about causes of disease changed over time was because of attitudes in society.

**E:** Although attitudes from 1250 - 1500 were very conservative, this began to change slightly between 1500-1700. The Renaissance gave birth to a revival of learning and once some ancient ideas had been proven wrong, this (along with **Humanism**) encouraged attitudes to become less traditional and that meant more people tried to discover new ideas about disease. However, from the 1700s onwards the **Enlightenment** caused a more rapid change in attitudes as people were encouraged to think for themselves more. Ordinary people wanted answers to the deadly epidemics (although for the most part were still reluctant to change). The modern period saw more acceptance in society of new ideas about disease.

**Ex:** Therefore attitudes in society were important in changing ideas because the less conservative society became, the more likely it was for new ideas about the causes of disease to be accepted and put into use. Although this only really happened on a large scale from the mid 1800s onwards, it was still significant in allowing the rapid progress seen in the understanding of the causes of disease from the 1880s to the present day.



# Glossary

- **Stagnant** - Unmoving (When there was no progress)



# Comprehension Questions

1. Can you describe 2 examples of how ideas about the cause of disease changed by 1900?
2. Pick 2 **turning points** in the understanding of the causes of disease over time. Explain why they are turning points.
3. Create your own graph like in the previous examples to show the importance of religion on the understanding of the causes of disease over time.
4. Can you write your own paragraph about a **different** factor responsible for causing change in ideas about causes of disease over time? **(Use the examples on the worksheet to help you)**
5. Challenge question: Write a detailed conclusion explaining which factor you think was most important in causing ideas about the causes of disease to change **over time**.

## You may want to use the following sentence starters:

- *I think the most important factor in causing change was...*
- *This is because (try to give 2 supporting examples) ...*
- *Therefore, I think \_\_\_\_\_ was the most important factor because...(try to explain why you think it was more important than some of the other factors)*

