

Antoine Lavoisier - literacy task

A Science hero or foe of the state?

Antoine Lavoisier was born in Paris on 26 August 1743. He was educated at College Mazarin. He was the son of a wealthy lawyer and it was expected that he would follow in his father's footsteps. He did this by obtaining his license to practise law in 1764. Then he turned to a life of science

In 1765, Lavoisier wrote and published a paper on how to improve the street lighting in Paris. For this and some work on agriculture, he was elected onto the Royal Academy of Science 1768. In 1771 he married the daughter of a farmer general. In 1775, Lavoisier was appointed to the National Gunpowder commission. He then moved to the Arsenal of Parle where he created a superb laboratory to continue his experiments.

Lavoisier's experiments were among the first truly quantitative experiments ever performed. His experiments provided evidence for the law of conservation of matter. Some of Lavoisier's most important experiments were about combustion. In 1777, he showed that burning is a process involving the combustion of a substance of oxygen. He also demonstrated the role of oxygen in respiration. In 1783 he began heat-measuring experiment. He showed that the heat produced by respiration was equal to the heat produced when the same amount of oxygen was burned to heat charcoal. Lavoisier had shown the importance of measuring and not simply recording observations and descriptions.

Soon after the French Revolution began, journalists began to criticise Lavoisier for being a member of the Farmers' General. On 8 May 1794, all of the Farmers' General were arrested and thrown into prison. In a trial that lasted one day, they were all convicted and sentenced to execution. When Lavoisier asked for time to complete some scientific work, the judge said 'The republic has no need for Scientists'. Lavoisier was executed, and his body buried in a common grave.

Questions

- ① Complete some research and find out the detail behind Lavoisier's experiment with a tin can.
- ② Lavoisier's work was the early evidence needed to create the law of conservation of mass. State the law of conservation of mass.
- ③ Explain why measurements were so important to Lavoisier in creating his conclusions.
- ④ Create a timeline of Lavoisier's life and work.