Scientific experiments like the one pictured here were offered as fascinating shows to the public in the mid-eighteenth century. In Joseph Wright of Derby's painting *A Philosopher Giving A Lecture at the Orrery* (1765), we see the demonstration of an orrery, a mechanical model of the solar system that was used to demonstrate the motions of the planets around the sun - making the universe seem almost like a clock.

In the center of the orrery is a gas light, which represents the sun (though the figure who stands in the foreground with his back to us block this from our view); the arcs represent the orbits of the planets. Wright concentrates on the faces of the figures to create a compelling narrative.

With paintings like these, Wright invented a new subject: scenes of experiments and new machinery, and the beginnings of the Industrial Revolution (think cities, railroads, steam power, gas and then electric light, factories, machines, pollution). Wright's fascination with light, strange shadows, and darkness, reveals the influence of Baroque art.

**Enlightenment**

Toward the middle of the eighteenth century a shift in thinking occurred. This shift is known as the Enlightenment. You have probably already heard of some important Enlightenment figures, like Rousseau, Diderot and Voltaire. It is helpful I think to think about the word "enlighten" here - the idea of shedding light on something, illuminating it, making it clear.

The thinkers of the Enlightenment, influenced by the scientific revolutions of the previous century, believed in shedding the light of science and reason on the world, and in order to question traditional ideas and ways of doing things. The scientific revolution (based on empirical observation, and not on metaphysics or spirituality) gave the impression that the universe behaved according to universal and unchanging laws (think of Newton here). This provided a model for looking rationally on human institutions as well as nature.
**Reason and Equality**

Rousseau, for example, began to question the idea of the divine right of Kings. In *The Social Contract*, he wrote that the King does not, in fact, receive his power from God, but rather from the general will of the people. This, of course, implies that "the people" can also take away that power! The Enlightenment thinkers also discussed other ideas that are the founding principles of any democracy - the idea of the importance of the individual who can reason for himself, the idea of equality under the law, and the idea of natural rights. The Enlightenment was a period of profound optimism, a sense that with science and reason - and the consequent shedding of old superstitions - human beings and human society would improve.

You can probably tell already that the Enlightenment was anti-clerical; it was, for the most part, opposed to traditional Catholicism. Instead, the Enlightenment thinkers developed a way of understanding the universe called Deism - the idea, more or less, is that there is a God, but that this God is not the figure of the Old and New Testaments, actively involved in human affairs. He is more like a watchmaker who, once he makes the watch and winds it, has nothing more to do with it.

**The Enlightenment, the Monarchy and the Revolution**

The Enlightenment encouraged criticism of the corruption of the monarchy (at this point King Louis XVI), and the aristocracy. Enlightenment thinkers condemned Rococo art for being immoral and indecent, and called for a new kind of art that would be moral instead of immoral, and teach people right and wrong.

Denis Diderot, Enlightenment philosopher, writer and art critic, wrote that the aim of art was "to make virtue attractive, vice odious, ridicule forceful; that is the aim of every honest man who takes up the pen, the brush or the chisel" (*Essai sur la peinture*).

These new ways of thinking, combined with a financial crisis (the country was literally bankrupt) and poor harvests left many ordinary French people both angry and hungry. In 1789, the French Revolution began. In its first stage, all the revolutionaries ask for is a constitution that would limit the power of the king. Click here to read the *Declaration of the Rights of Man* - a document produced by the revolutionaries at the beginning of the revolution.

Ultimately the idea of a constitution failed, and the revolution entered a more radical stage. In 1792, Louis XVI and his wife Marie Antoinette, were beheaded along with thousands of other aristocrats believed to be loyal to the monarchy.