



# *Joseph Priestley House* *TEACHER PACKET*

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**Pennsylvania Historical & Museum Commission**

Edward G. Rendell, Governor • Wayne S. Spilove, Chairman • Barbara Franco, Executive Director

# Joseph Priestley and Religion



This is the Joseph Priestley Memorial Chapel on Front Street in Northumberland, built in 1834 and re-dedicated in 1919. It is now owned by the Unitarian Universalist Association (a national organization based in Boston) and cared for locally by the Priestley Chapel Associates, a not-for-profit organization.

## 3 BURNING QUESTIONS:

- 🔥 What does religion mean to Joseph Priestley?
- 🔥 What did Joseph Priestley believe as a Unitarian?
- 🔥 What did Joseph Priestley do with his Unitarian beliefs in Northumberland?

### What does religion mean to Joseph Priestley?

The time in which Priestley lived is sometimes referred to by historians as part of the *Age of Enlightenment*. Great leaps were made in human kind's knowledge of the world around them, bringing about developments in technology, politics, and even religion.

Beginning in the 1600's, English subjects who did not believe in the 39 articles of the Church of England and who did not attend state churches were called *Dissenters*. Dissenters were persecuted on various levels, and were not permitted to hold public offices or avoid paying taxes to the state church or even conduct their own churches. Since schools at the time were extensions of the church, the academies Dissenters conducted were technically against

the law but were *tolerated* by the English government.

During his lifetime, Joseph Priestley became a dissenter. He believed that religion was a search for truth, and to understand truth you have to reason your way toward it. Priestley emphasized education during his lifetime so that more people would have the means and the access to try to decide for themselves what was true, instead of people having ideas drilled into them by clergymen from a young age. During his own lifetime, he was taught the official catechism of the Anglican church by his mother, introduced to free-thinking ministers by his aunt and taught about her *Calvinist* beliefs, and then as a teenager, he became ill and couldn't go to school. He stayed home and learned Biblical languages and examined the New Testament of the Christian Bible. He decided that he could not reconcile the Calvinist image of God with his own interpretation of the scriptures and of events in his own life.

1742 – Joseph Priestley's mother dies and he moves in with his Aunt Sarah. He is nine years old.	1755 – Priestley assigned to his first parish: Needham Market	1777 – Priestley writes <i>Disquisitions on Matter &amp; Spirit</i>	1782 – Priestley writes <i>An History of the Corruptions of Christianity</i>	1796 – Priestley preaches in Philadelphia
1743 – Ben Franklin and friends establish the American Philosophical Society	1760 – George III is crowned King of England	1776 – <i>Common Sense</i> is published, discussing (among other things) religious liberty	1787 – English Dissenters try to have the Test and Corporation Acts repealed	1796 – Adams is elected America's 2 <sup>nd</sup> president

This way of examining religion led from a sickly teenage boy's point of view into a lifelong career in the ministry and a series of published books on the subject. When Priestley graduated from school and was preparing to enter the ministry, he failed to give the prescribed

answers to certain questions of religious *dogma*. In his publications *Disquisitions Relating to Matter and Spirit* and *An History of the Corruptions of Christianity*, Priestley set about examining philosophical and religious ideas by examining the history of those ideas and philosophies.

### What did Joseph Priestley believe as a Unitarian?

Eventually, Joseph Priestley would call himself an *Unitarian*. This is not an easy term to define, as the meaning has changed a great deal in the time between Priestley and us. Defining the term depends on an extended vocabulary of church history, theology and philosophy.

Joseph Priestley believed that matter and spirit were made of the same stuff, and one could not exist without the other. He also believed someone named Jesus had walked the earth and Jesus' followers started the religion called Christianity, and in so doing added a lot of new ideas to Jesus' original teachings. Joseph Priestley felt that by examining the *scriptures* of Judaism and Christianity, one could discern the original essence of Jesus' nature and message.

### What did Joseph Priestley do with his Unitarian beliefs in Northumberland?

In Priestley's letters written from America, he talked at length of his desire to establish congregations of like-minded individuals here and to see the influence of Unitarianism spread throughout the young country. Priestley says the only way his life would prove useful would be to aid in the spread of the religion of reason. He did preach before assemblies of Philadelphians and saw during his lifetime in Pennsylvania the establishment of the first permanent Unitarian congregation there. Often times he remarked in his letters that especially the young men in Northumberland seemed to have no religion, and he despaired of Unitarian principles taking hold here. However, in the 1820's, a new Unitarian minister appeared here. Reverend James Kay delivered services to people who had heard Priestley preach in Northumberland, including Reverend Priestley's grandson, Joseph Rayner Priestley. In 1834, Kay's congregation built a new chapel. Priestley's vision of seeing the Unitarian faith develop in central Pennsylvania finally materialized.



This is Joseph Rayner Priestley, grandson of the Rev. Joseph Priestley. He was a part of the first formal congregation of Unitarians in Northumberland. To learn more about his life in Northumberland, please see our page "Joseph Priestley's Local Legacy".

#### VOCABULARY:

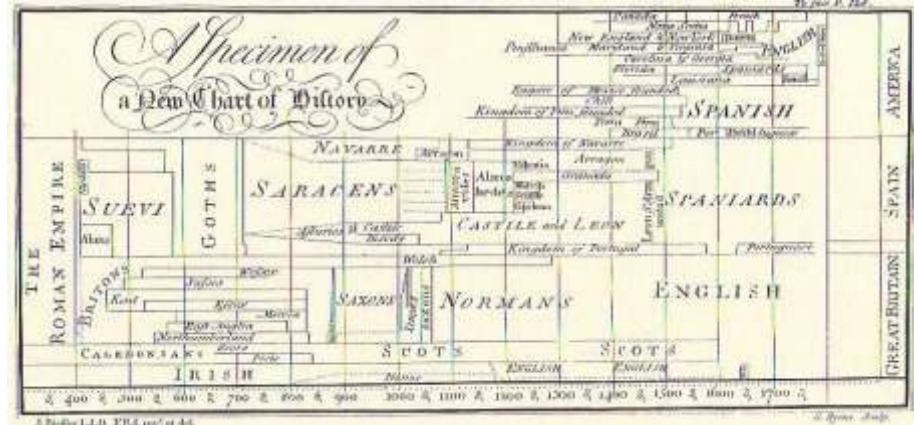
Calvinist	Corruption	Congregation
Dissenter	Dogma	Philosophy
Religion	Scripture	Toleration

#### RESOURCES:

David E. Bumbaugh (1999). Unitarian Universalism: A Narrative History. Beacon Press: Boston. Available at the Joseph Priestley House Gift Shop.

# Joseph Priestley and Education

This is a timeline Joseph Priestley composed to help him teach History. It shows visually how different nations and groups overlapped in time and territory across almost 1800 years of history. A similar chart, Priestley's Chart of Biography, showing important "statesmen and men of learning", was such a novel teaching tool that Priestley was nominated for and awarded an honorary degree—a Legum Doctor or L.L. D.—by the University of Edinburgh in 1764. These charts were reprinted many times and used at universities in Europe and America to teach history for many years.



## 3 BURNING QUESTIONS:



Who should go to school and why?

What are other ways to learn?

What did Joseph Priestley do about education in Northumberland?

### Who should go to school and why?

In England as in America, schools haven't always been open to everyone. In the 1700's, girls, for instance, were a rare sight at academic schools. School students were mostly white males of English birth, who were members of the Anglican Church.

In Joseph Priestley's time, schools were considered an extension of the state church, and *Dissenters* were not allowed to enroll at English institutions such as Oxford. Dissenters, therefore, established their own schools. Where the state schools had a centuries-old traditional curriculum centered around *classic literature*, aimed at producing lawyers, doctors and clergymen, dissenting academies had more flexible and modern curriculum options, including sciences, the better to train men of business. These academies became the best, most forward thinking schools of their time in England.

Joseph Priestley realized that well-rounded education benefited society in general by producing male citizens who had a broader base of common knowledge. He advocated at least *literacy*, if not complete school training, for all citizens, not just men.

Joseph Priestley made a striking move at the first school he established, in Nantwich, England. He included there, as his great-granddaughter wrote, "a separate room for a half a dozen young ladies, he at all times gave his best mind to the teaching of girls..." It was widely believed in his time that appropriate education for women included only as much as would make them dutiful and handy wives and mothers; domestic crafts and skills were taught in the home or at dame schools, and very wealthy families sent their daughters to girls' schools where they would learn to paint and sing and do other artistic, "feminine" things. Teaching girls academic subjects at schools where their male peers attended, was not the norm.

## What are other ways to learn?

Joseph Priestley attended dissenting academies for his training and later taught at them as well. He believed that learning should be available to everyone, no matter what their church membership or ability to afford enrollment at academies, and that those who made studies of natural philosophy and related subjects should always attempt to communicate their findings in honest, open, readable ways. This is why Priestley started writing text books about the history and present state of learning in certain fields of science, such as electricity and air.

1752 – Joseph Priestley is sent to Daventry Academy. He is 19 years old.

1761– Priestley publishes his first textbook, *Rudiments of English Grammar*

1764 – Priestley publishes the *Chart of Biography* and receives his honorary LLD from the University of Edinburgh

1767 – Priestley publishes *History and Present State of Discoveries Relating to Electricity*

1803 – Priestley is to become the principal of the Northumberland Academy

## What did Joseph Priestley do about education in Northumberland?

In Northumberland, Pennsylvania, Joseph Priestley thought there was potential for a college to be built. Spurning offers from well-established schools, such as the University of Pennsylvania, Priestley began to offer lectures to “young mechanics” (boys of apprenticeship age) in his home while trying to gather local and state legislature support to build the Northumberland Academy, which did open its doors in 1803, but on a much smaller scale than originally planned, and operated for less than 20 years.

Priestley’s educational ideas were not lost in America, however. Letters passing between Joseph Priestley and Thomas Jefferson helped Jefferson plan the curriculum for the University of Virginia, along the lines of the present day “liberal arts” style of education.



Members of the Priestley family were all readers. Joseph Priestley's oldest granddaughter, Eliza, pictured here, remembered that it was her famous grandfather who taught her to read. Later generations of Priestley's family included well known writers, such as Hillaire Belloc. In this way, Joseph Priestley's family life was consistent with his revolutionary public career in education. *Photo courtesy of Paulo Lowndes Marques.*

### VOCABULARY

Classic literature

Dame Schools

Dissenters

Literacy

### RESOURCES

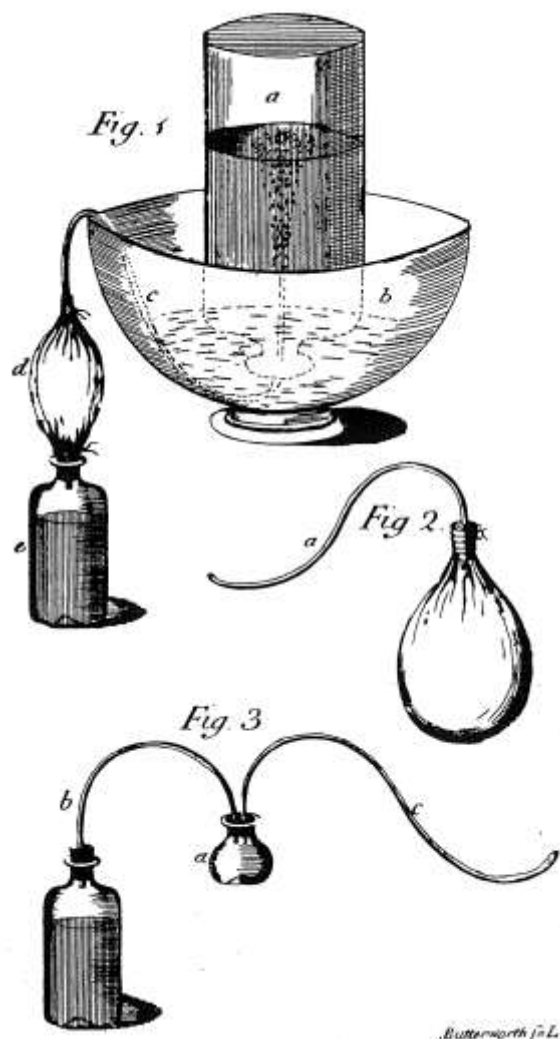
Brown, Ira. (1962). *Joseph Priestley: Selections from his Writings*. Penn State Press: University Park, PA.

Haakonssen, Knud. Ed. (1996). *Enlightenment and Religion: Rational Dissent in Eighteenth-Century Britain*. Cambridge University Press: New York. *This book describes the development of dissenting academies and their importance in 18<sup>th</sup> century England.*

Schofield, Robert E. (2004). *The Enlightened Joseph Priestley: A Study of His Life and Work from 1773-1804*. Penn State Press: University Park, PA. *Available at Joseph Priestley House Gift Shop.*

Schofield, Robert E. (1997). *The Enlightenment of Joseph Priestley: A Study of His Life and Work from 1733-1773*. Penn State Press: University Park, PA. *Available at Joseph Priestley House Gift Shop*

# Joseph Priestley and Science



Above: illustrations from Joseph Priestley's pamphlet, "Directions for Impregnating Water with Fixed Air". "Fixed Air" means carbon dioxide, so water infused with it is called carbonated water.

## 3 BURNING QUESTIONS:



What is natural philosophy?



Why did Joseph Priestley do natural philosophy?



What did Joseph Priestley do as a natural philosopher?

## What is natural philosophy?

The history of science is not a simple one. In the time when Joseph Priestley lived and worked, there was no such word as "scientist". The branches of modern science—like chemistry, biology and physics—were not sharply defined, independent subjects. The study of nature and its workings was called "natural philosophy", and those who worked on these subjects, *natural philosophers*.

Joseph Priestley was an amateur natural philosopher from a young age. One of his earliest experiments was catching spiders in a jar to see how long they could live inside a jar with a lid on top. By 1766, when Joseph Priestley was only 33 years old, he was elected a Fellow of the Royal Society of London and won their prestigious Copley Medal, for a publication describing how to create soda water. Think of how much *carbonated water* we consume today!

## Why did Joseph Priestley do natural philosophy?

Priestley, who had no formal academic training on subjects of science, conducted his experiments to extend his own understanding of the natural world. The main reason for his studies was not for prestige, fame, or the thrill of discovery, but to apply what he learned by looking at nature to his brand of Christianity, and to encourage his students to participate in what we now call the *scientific method*.

## What did Joseph Priestley do as a natural philosopher?

In 1774, Joseph Priestley isolated a gas different than common air. He called it, "dephlogisticated air", meaning air without *phlogiston*, which Priestley and others thought to be the essence of fire. We call this gas "oxygen" now because a French chemist, Antoine Lavoisier, repeated Priestley's experiments and produced a different theory about what this air was. The phlogiston theory of why things burn was old, and a new theory of chemical *elements* was beginning to gain acceptance in intellectual circles. Priestley, however, who was not formally schooled in chemistry, defended the old theory all during his career in experimenting. In this theoretical framework, Priestley described 8 other gases:

Priestley said	Modern Notation	We call it
Phlogisticated water	CO	Carbon monoxide
Sulphureted inflammable air	H <sub>2</sub> S	Hydrogen Sulfide
Marine Acid Air	HCl	Hydrogen Chloride

Nitrous Air	NO	Nitric oxide
Dephlogisticated Nitrous Air	N2O	Nitrous Oxide (laughing gas!)
Alkaline Air	NH3	Ammonia
Fluor Acid Air	SiF4	Silicon Tetra fluoride
Vitriolic Acid Air	SO2	Sulfur dioxide

Joseph Priestley's career in natural philosophy, spanning about 60 of his 71 years, revealed much to the world of natural philosophy, raising many questions even as it provided answers. Along the way, Joseph Priestley described, discovered or delineated many various useful things, such as the electrical conductivity of ice, the process of *photosynthesis*, and Coulomb's Law. He also wrote books about the science of illustration, "vision, light and colors", respiration and the use of blood, and named the substance we call "rubber", describing how this substance was the best method he had yet discovered for erasing pencil marks (prior to his use of rubber, stale bread crusts were among the many messy remedies for erasing pencil marks!).

<b>1740 or so – A young Joseph Priestley begins experimenting with air by catching spiders in jars to see how long they will live.</b>	<b>1765 – Priestley writes History of Electricity, and begins electrical experiments of his own</b>	<b>1772 – Priestley publishes a pamphlet describing how water gets carbonated</b> <b>1774 – Priestley discovers Dephlogisticated Air (O2)</b>	<b>1775 – Antoine Lavoisier publishes his work on oxygen, "acid maker"</b> <b>1778 – Priestley begins to describe what we now call photosynthesis</b>	<b>1799- Priestley describes Phlogisticated Water (Carbon Monoxide) in his Northumberland lab</b>
1742 – The first Leyden Jar invented. In 20 years, Priestley will use them in his work on electricity.	1767 – The world gets its introduction to Ben Franklin's kite and key experiment through Priestley's books	1769 – The steam engine is invented. It will be bankrolled by Priestley's friends James Watt and Matthew Boulton.	By 1780, many familiar things have been invented and are in popular use: steel point pens, flushing toilets, soft serve ice cream, and more	1803 – John Dalton publishes the first edition of what we now know as the Periodic Table of the Elements

In 1874, chemists from all over the world gathered in Northumberland, Pennsylvania to celebrate the 100<sup>th</sup> anniversary of Priestley's discovery of oxygen, calling that the beginning of modern chemistry. Members of that celebration and others joined to form the American Chemical Society (ACS) in 1876. Today, the ACS is the largest professional scientific organization in the world devoted to one single science, and Joseph Priestley's scientific legacy is one of the most important stories told at Priestley House.

After testing **dephlogisticated air** in various ways, Joseph Priestley decided to breathe some of it for himself, and he wrote, "The **feeling of it to my lungs** was not sensibly different from that of common air; but I fancied that my breast felt peculiarly **light and easy for some time afterwards**. Who can tell but that, in time, this pure air may be a fashionable article of luxury. Hitherto, only two mice and myself have had the pleasure of breathing it." Far from being a mere luxury, Priestley predicted our present use of **oxygen as a life-saving gas**.

## VOCABULARY

Carbonated Water

Elements

Natural Philosophers

Phlogiston

Photosynthesis

Science

Scientific Method

## Resources:

For teachers of chemistry: [www.acs.org](http://www.acs.org) Home page of the American Chemical Society: See *Joseph Priestley: Discoverer of Oxygen* at <http://acswebcontent.acs.org/landmarks/landmarks/priestley/index.html>

Jackson, Joe. (2005). *A World On Fire: A Heretic, An Aristocrat, and the Race to Discover Oxygen*. Viking: New York.

Schwartz, A. Truman and John G. McEvoy, Eds. (1990). *Motion Toward Perfection: The Achievement of Joseph Priestley*. Skinner House Books: Boston.

# Joseph Priestley and Politics



**GUNPOWDER JOE, *The Mystic Divine***  
This illustration is a *caricature* of Joseph Priestley, drawn in England by Samuel Collins. It portrays Priestley as stomping all over sacred texts and ideas, meanwhile waving flaming torches of revolutionary new ideas. What message does this cartoon convey?

## 3 BURNING QUESTIONS:

- What's a "Dissenter"?
- What makes Joseph Priestley such a red hot revolutionary?
- How did Joseph Priestley's politics land him in hot water?



### What's A "Dissenter"?

During the *Age of Enlightenment*, the governments and *politics* of many countries changed dramatically. This period of history saw the *secession* of the American colonies from their mother country, Great Britain, and the establishment of a new government there, and also the fall of the *monarchy* in France during its Revolution, for example.

Despite advances in thought and government, the political situation in England, where the church and the state were united, remained uncomfortable for *dissenters*: those refusing to swear an oath affirming their belief in the tenants of the Anglican church, who were therefore viewed suspiciously as traitors to the British state. *Toleration* by the English government of dissenting assemblies, such as churches and schools, was not the law. The schools and churches Joseph Priestley attended and taught at were all technically illegal according to the English Constitution at the time!

So, Joseph Priestley was already an outlaw of sorts for his failure to *subscribe* to the *39 Articles of the Anglican Church*. More than that, he was an active Dissenting minister, who attended and served dissenters' churches and schools during his entire life in England. But Priestley's outrageous conduct went even farther.

### What makes Joseph Priestley such a red hot Revolutionary?

When he taught at academies, Priestley lectured his older students about the principles of good governments.



Many of the ideas he expressed are echoed in the American Declaration of Independence and the Constitution. Those ideas were not new during his time, nor were they unique to Priestley. But they were considered dangerous, explosive ideas.

And Priestley made no secret of his beliefs. The outlines of his lectures were widely read. Also, it was well known that Priestley counted Benjamin Franklin, Pennsylvania's ambassador to England under colonial government, among his closest friends when the American colonies began to seek independence from Great Britain.

Many people of the upper and ruling classes believed that giving control of government to the common people would result in chaos and disorder. Priestley, on the other hand, advocated for the advance of literacy and education, which he thought would lead citizens to a natural interest and peaceful, informed participation in matters of their governance. He believed, like many philosophers, that the best governments are those aligned with the interests of the people those governments represent. It seems like common sense to us in the 21<sup>st</sup> century, but Britain had been ruled by kings (and more rarely, queens), who inherited the privilege of ruling and made governmental choices without regard to what the English

people thought, for nearly 1,000 years by the 18<sup>th</sup> century! Surely, people like Priestley who actively promoted the ideas of new governments for America and France were disturbing the peace.

1773 – 1780 – Joseph Priestley is in the service of William Petty, who becomes the ambassador to the new United States	1788 – Priestley’s Lectures on History and General Policy are published, significant among his radical political works	1791- Priestley’s English home destroyed by a mob due to their anger at his outspoken religious and political ideas	1794 – Priestley arrives in America, in New York, stays a while in Philadelphia and then travels to Northumberland	1799 – Priestley targeted by new Alien and Sedition Laws  1799 – Priestley publishes <i>Letters to the Inhabitants of Northumberland</i>
1773 – Boston Tea Party  1776 – 1780 American Revolution	1788 – Washington becomes first American President  1789 – French Revolution begins	1790 – Ben Franklin dies in America  1793 – Louis XVI and Marie Antoinette are guillotined in France	1796 – Adams is elected America’s 2 <sup>nd</sup> president  1798 – Adams passes <i>Alien and Sedition Acts</i>	1800 – Thomas Jefferson becomes president, and in 1801 he writes to Priestley, “Yours is one of the few lives precious to mankind.”



### How did Joseph Priestley's politics land him in hot water?

Priestley’s precarious public position as an active radical thinker ultimately became personally dangerous to him in 1791, when his home, library of research, laboratory, and chapels were destroyed during a week-long public *riot* in the city of Birmingham, England. After much continued harassment and great deliberation, Priestley sailed for America in 1794, where he believed the new nation’s government was not perfect, but certainly progressive enough to allow for public free thinking. Priestley chose to not go through with the *naturalization* process and become an American citizen, but he wrote gratefully about the peace and prosperity of his new home.

Priestley continued to write publicly and in his private correspondence from Northumberland about American political matters. His criticism and commentary drew attention from Timothy Pickering, Secretary of State to John Adams. Pickering went so far as to recommend that Priestley be deported under the Alien Act in 1799, saying, “Those who are desirous of maintaining our internal tranquility must wish [Priestley] removed from the United States.” Priestley’s name was widely known as attacks on his political thinking continued. Though Priestley was acquainted on friendly terms with Presidents John Adams and Thomas Jefferson, his political thought remained independent and was not completely aligned with either of America’s political parties in the 1790’s. Even among the new liberal Americans with whom he sympathized, Priestley remained unique in his ideas.

Joseph Priestley did not involve himself in local politics when living in Northumberland. His son, grandson and great grandsons all named Joseph Priestley, were local civic leaders in many ways. See our page called “Joseph Priestley’s Local Legacy” for more.

#### VOCABULARY:

39 Articles of the Anglican Church	Caricature	Naturalization
Age of Enlightenment	Dissenters	Politics
Alien and Sedition Acts	Monarchy	Riot
Sedition	Subscribe	Toleration

#### RESOURCES:

Gibbs, F.W. (1965). *Joseph Priestley: Revolutions of the Eighteenth Century*. Doubleday: Garden City, NY. Available in local and school libraries.

Graham, Jenny. (1995). *A Revolutionary in Exile: The Emigration of Joseph Priestley to America 1794-1804*. American Philosophical Society: Philadelphia.

Joseph Priestley House: Pennsylvania Trail of History Guide. (2003). Text by Alison Duncan Hirsch, Photography by Kyle Weaver. Published in partnership with Pennsylvania Historical and Museum Commission by Stackpole Books: Mechanicsburg, PA.

# Joseph Priestley's Local Legacy

## 2 BURNING QUESTIONS:

- 🚩 Where can I find Joseph Priestley?
- 🚩 Will the real Joseph Priestley please raise his hand?

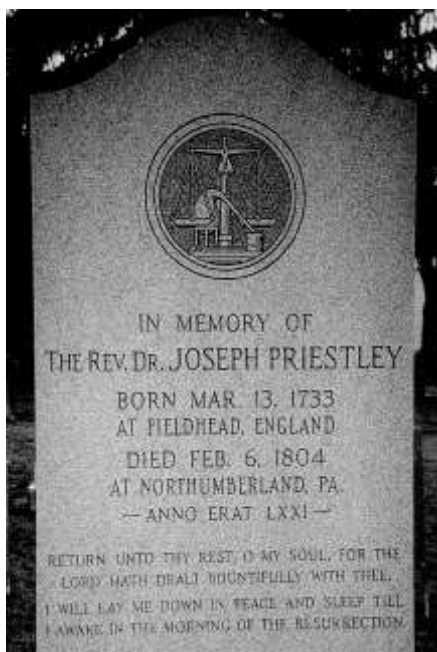


### Where can I find Joseph Priestley?

By now you have learned a great deal about the Reverend Joseph Priestley who lived, worked and died in Northumberland. He made his home is at the present 472 Priestley Avenue. His grave is in Riverview Cemetery.

Many things which belonged to the Reverend Joseph Priestley while he lived in Northumberland are now in museum collections in other places. Dickinson College, the Smithsonian Institution's Museums of Natural and American History, Harvard University, and other places have objects that belonged to Joseph Priestley, that were distributed to those places by friends and descendants of the well-known minister, teacher, scholar, and philosopher.

Joseph Priestley's local legacy was the product of the work and contributions of later generations of his family to the town of Northumberland.



This marker was placed in 1971 by the Northumberland Cemetery Company, in front of Joseph Priestley's original headstone in the Riverview Cemetery.

### Will the real Joseph Priestley please raise his hand?

The most famous Joseph Priestley was born in Leeds, England in 1733 and died in Northumberland, PA in 1804. On the title page of many of his publications, he is styled as Joseph Priestley, LL.D., F.R.S. Sometimes in print, he is called "Doctor" Joseph Priestley; but he was never a medical doctor. The initials after his name, LL.D., stand for *Legum Doctor*, an honorary degree that the University of Edinburgh gave him in 1764. The letters F.R.S. stand for *Fellow of the Royal Society* of London. For our purposes, it would be most appropriate to call this man the "Reverend" Joseph Priestley.



**Born 1733 – Reverend Joseph Priestley – Died 1804**

**Born 1768 – Joseph Priestley Junior – Died 1833**

**Born 1793 – Joseph Rayner Priestley – Died 1863**

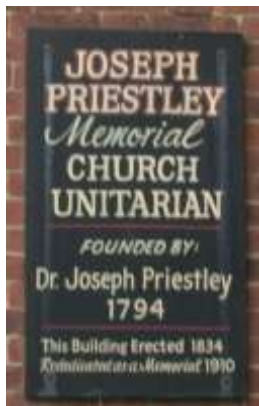
**Born 1819 – Joseph Priestley, M.D. – Died 1883**

**Born 1849 – Joseph Rayner Priestley (infant) – Died 1851**

1732 – George Washington is born	1776 – American Revolution begins	1787 – 39 representatives sign the U.S. Constitution	1812 – America and England go to war at sea	1830's – Canals are built in Northumberland area	1860 – 1865 American Civil War
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Like many other English families, Reverend Joseph Priestley and his wife followed *traditions* when naming their children. First born sons were named after their father (first daughters, incidentally, were named for their grandmother). Joseph Priestley was the oldest of the Reverend Joseph Priestley's sons, and many times he is referred to as Joseph Priestley Junior, though he did not seem to sign his own name that way. He was born in 1768 in Leeds, England. He came to America in 1793, and lived in the

Priestley House in Northumberland from 1798 until he returned to England in 1812. This Joseph Priestley joined a number of Northumberland's early *civic organizations*, such as the Volunteer Fire Company and the committees appointed to oversee the building of bridges and roads.



This plaque is near the door of the Priestley Memorial Chapel on Front Street in Northumberland. Joseph Rayner Priestley was one of its founders.

Joseph Rayner Priestley is Joseph Priestley Junior's oldest son. Joseph Rayner Priestley was born in England in 1793 in Manchester, moved to Northumberland with his parents as a tiny baby in 1793. He left Northumberland with his family in 1811, but moved back to Northumberland as an adult—bringing his young wife and first daughter with him at that time. This Joseph Priestley was a clerk at the Northumberland Bank, and a member of the small congregation that built a Unitarian church building in town in 1834.

Joseph Rayner Priestley's oldest son was Dr. Joseph Priestley, or Joseph Priestley, M.D. Unlike his famous great-grandfather, this Joseph Priestley was a medical doctor. He was well known and liked in Northumberland, and had a large medical practice here.

In 1864, he moved into and renovated the building at 180 King Street into his home and office. He named his first son Joseph Rayner Priestley, but that son died at nearly two years of

age. There were no more Joseph Priestleys in Northumberland after that.

But there were other Priestleys who made important contributions to the town. The daughters of Dr. Joseph Priestley donated the home where they grew up at 180 King Street to the town library. That building, dedicated January 1, 1926, is the present day Priestley-Forsyth Memorial Library.



Many years after Northumberland had seen its last Joseph Priestley, other important places and things were named after the original. The Joseph Priestley Bridge between Sunbury's Packer Island and Northumberland was dedicated on July 14, 1988. The Joseph Priestley elementary school was re-dedicated in the year 2000. The community which the original Joseph Priestley once gratefully called his home continues to honor his memory to this day.



This marker is on the Northumberland shore of the Joseph Priestley Memorial Bridge, two blocks from Joseph Priestley's 1798 home.

**VOCABULARY:**

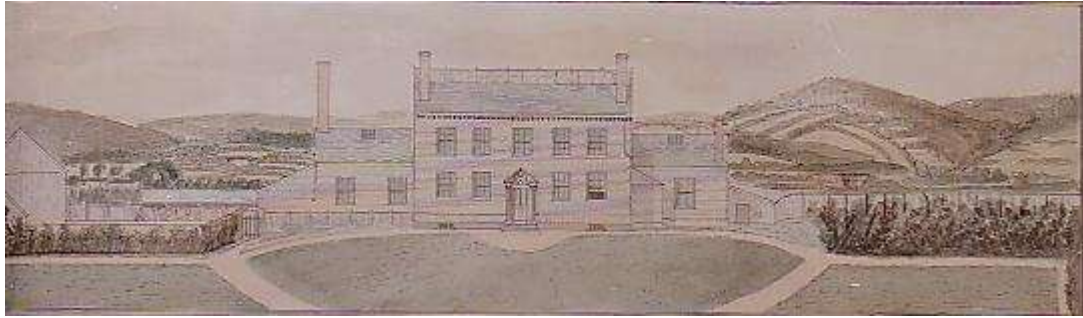
- |                         |          |           |
|-------------------------|----------|-----------|
| Civic Organization      | Dedicate | Establish |
| Legum Doctor or LL.D.   | Legacy   | M.D.      |
| Royal Society of London | Reverend | Tradition |

**Resources:**

[www.uucsv.org](http://www.uucsv.org) features articles on the history of the Priestley Memorial Chapel.

Walking Tour Committee, Friends of Joseph Priestley House. (2003). *Northumberland Historic District: Self-Guided Walking Tour*. Request a copy from Joseph Priestley House by calling 570-473-9474.

# Joseph Priestley House



This image of Priestley House as seen from the “front” side, the side of the home which faces the Susquehanna River bank, is from an architectural rendering of the house dated July 1800. Note the house’s raised elevation, barnyard to the left, and garden and paths to the right.

In 1794, when Joseph Priestley arrived in Northumberland, he discovered a small village on Pennsylvania’s frontier with barely 100 buildings. When he and his wife decided to settle here, they planned to build a new home. After a few setbacks, in 1795, construction of Priestley House began. It wasn’t until 1798 that the Priestleys and their servants occupied the new house.

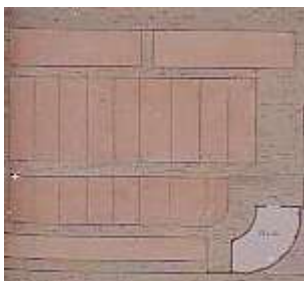
At first, brick was to be the material of the building. Not many brick buildings were here. Bricks were expensive, as making them relied on the right conditions and weather. Wood was chosen as an alternate building material.

The house was painted white inside and out and featured delicate wood trim and stately *motifs*, such as *columns* and *arches*.

This house is a blend of an English style of *architecture*, the *Georgian* style, and an American one, the *Federal* style. *Symmetry* and *balance* are *hallmarks* of both styles of architecture. The center of the house is made up of three square floors, divided into four equal-sized rooms or bays on each floor, stacked on top of one another. The side wings of the house are 1 ½ stories each, accommodating the kitchen and laboratory, with loft storage areas above the first floor rooms. Below is a view of the rooms on the first floor.

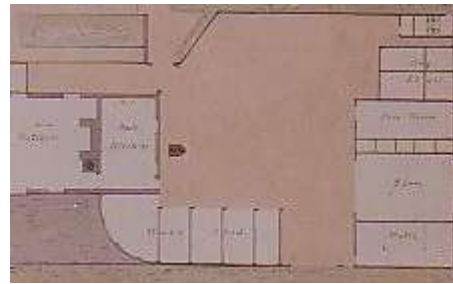


Inside the home, the rooms were designated for certain uses. Joseph Priestley had a large collection of books and used his front left room as a library and study, and near the end of his life, an apartment. He used a store room connected to the library as a walkway to reach the laboratory attached to the outside of the home.



Beyond having an elegant and large home, the Priestleys would have carefully planned the *landscape* around the building. Gardens for edible plants and likely *ornamental* ones too were incorporated into plans for the grounds, and walking paths were landscaped in to give access to these features. The artist who prepared the “Sambourne” drawing of Priestley House was not specific as to what was planted in those plots.

A barnyard is also a part of the grounds at Priestley House. A *carriage barn*, a *privy* building, and sties were included, with sheds for storing fire wood and outdoor baking oven. This area was walled off from the street and the rest of the yard, and could be entered through a number of gates, or from the house through the kitchen.



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The Priestleys were not the only family who ever lived in this magnificent home. When the Reverend Joseph Priestley died in 1804, his son Joseph Priestley and family lived in the house through 1811, then they returned to England. Priestley House was rented and eventually sold in 1815, and lived in nearly continuously by many different families through the early 1900's, when a Penn State University Chemistry professor purchased the building with the goal of using it as a chemistry building for the University. These plans were not carried out, but the university owned the building and had caretakers live in it through the 1950's. For a short time, the borough of Northumberland owned the house. In 1960, the Pennsylvania Historical and Museum Commission became the owners and have maintained the building ever since.

**VOCABULARY:**

Architecture	Arches	Balance
Barnyard	Carriage barn	Columns
Federal	Georgian	Hallmarks
Landscape	Motifs	Ornamental
Privy	Symmetry	

**RESOURCES:**

Joseph Priestley House: Pennsylvania Trail of History Guidebook. (2003). Text by Alison Duncan Hirsch and Photography by Kyle Weaver. Published by Stackpole Books and the Pennsylvania Historical and Museum Commission.

Kieft, Lester (1983). "Joseph Priestley and the Priestley House." Bucknell University: Lewisburg, PA.

A number of helpful articles on architecture can be found in places like Wikipedia and Encyclopedia.com online. For an excellent example of a website comparing Georgian and Federal Architecture, go to Dr. Tom Paradis' Architectural Styles of America Home Page:  
<http://jan.ucc.nau.edu/~twp/architecture/>



JOSEPH PRIESTLEY TIMELINE	GENERAL HISTORY TIMELINE
	1731 – Ben Franklin founds the first American Public Library 1732 – George Washington born
1733 – Joseph Priestley is born	
	1741 – Russia explores Alaska
1742 – moves in with Aunt Sarah	1742 – first leyden jar by E G vonKleist
1744 – conducts boyhood experiments	1743 – Franklin and friends found American Philosophical Society
1752-1755 – attends Daventry Academy	1752 – First general hospital in Philadelphia
1755-1758 – serves as minister at Needham Market	1755 – first Dictionary of English composed by Samuel Johnson 1756 – Mozart is born
1761-1767 – becomes tutor at Warrington Academy, publishes <i>Rudiments of English Grammar</i>	1760 – George III crowned King of England
1762 – marries Mary Wilkinson	
1764 – is awarded LL. D by the University of Edinburgh	1763 – French and Indian War ends
1765 – meets Franklin at Christmas	1765 – Stamp Act is passed
1766 – made F.R.S. 1767 – publishes <i>History and Present State of Discoveries relating to Electricity</i>	
	1769 – steam engine invented
1770 – publishes <i>Familiar Introduction to Perspective</i> –in the preface of which he names “rubber”	1770 – Boston Massacre Ludwig von Beethoven born
1772 – publishes <i>History and Present State of Discoveries relating to Light, Optics and Color...</i>	
1773 – awarded the Copley Medal, goes into service of Lord Shelburne 1774 – makes first trip to continental Europe, where he discussed his oxygen discovery with Antoine Lavoisier	1773 – Boston Tea Party  1774 – First Continental Congress, telegraph invented
	1775 – American Revolution begins, flush toilet invented 1776 – “Common Sense” is published, Declaration of Independence written
1780 – moves with all his family to Birmingham, minister of New Meeting	1780 – feather quills are gradually being replaced by steel pen points
1782 – publishes <i>History of the Corruptions of the Christian Church</i>	1783 – Peace treaty ends American Revolutionary War
1787 – Dissenters’ first attempt to repeal Test and Corporation Acts (which put government restrictions on religious practice in England)	1786 – Ice cream produced to be sold commercially in New York City  1788 – U.S. Constitution ratified

JOSEPH PRIESTLEY TIMELINE	GENERAL HISTORY TIMELINE
1791 – suffers through summertime riots in Birmingham, briefly becomes the minister at the Gravel Pit Meeting in Hackney	1789 – French Revolution begins
1792 – National Convention (France) makes Priestley an honorary citizen	1793 – Louis XVI and Marie Antionette executed by guillotine, cotton gin invented
1794 – Joseph Priestley arrives in America 1798 – lives in present Priestley House	
1799 – describes Carbon Monoxide	1799 – French Revolution ends
	1800 – Library of Congress established 1802 – Ludwig von Beethoven (b. 1770) composes Moonlight Sonata
1803 – publishes <i>Doctrine of Phlogiston Established...</i>  1804 – Dies at home in the library	1803 – Dalton publishes Table of Elements (forerunner of modern periodic table of the elements)  1804 – Napoleon crowns himself emperor of France
1811 – Joseph Priestley Jr. and family leave Northumberland, eventually going to England; Thomas Cooper transports JP's scientific equipment to Carlisle College	1812-1814 – War of 1812 between U.S.A. and Great Britain
	1864-1867 American Civil War
1874 – Centennial of Chemistry celebration events in Northumberland  1876 – American Chemical Society founded in New York City	
	1914-1918 World War I
1919 – George Gilbert Pond, Penn State Chemistry Chair, purchases house  1926 – At the Golden Jubilee Celebration of the Centennial of Chemistry, Priestley descendants gather at Priestley House Also, last Priestley descendants in Northumberland gift the Priestley Forsyth Memorial Library to the town	1926 – America celebrates its 150 <sup>th</sup> birthday
1960 – Priestley House becomes property of the Commonwealth of Pennsylvania	