



PEPPER'S  
ADVENTURES

IN TIME

The Life and Times of Ben Franklin





## A Word to Parents: How to Get the Most out of This Game

Welcome to the world of *Pepper's Adventures in Time!* When you enter this wild, wonderful place with your children, a mysterious thing will begin to happen: Your child will learn about history, and love it!

As your child plays *Pepper's Adventures*, he or she will discover that events in history have been mixed up, twisted, and confused. Your child will be allowed to manipulate events in the past that have been changed in order to set history back on course.

The objective of *Pepper's Adventures in Time* is to intro-



duce children to life in colonial America, and, more specifically, to teach them about the amazing life and incredible inventions of Benjamin Franklin. This information is presented in the form of a delightful adventure game that kids will want to play, just for the fun of it! To win the game, children will have to use their best thinking skills, solve all kinds of puzzles, answer questions logically, and be as creative as they can. There are several things you can do to make sure children get the most out of their gaming experience.

1) Encourage children to use the LOOK icon everywhere possible. Just clicking the HAND all over the screen will cause them to miss some important information, not to mention fun!

2) Make sure children use the TRUTH icon. Many of the answers to the HISTORY QUIZ will be revealed when they use it. In addition, use of the icon will reveal many fascinating and entertaining facts!

3) Suggest to your children that they read all the dialog, rather than clicking past it. *Pepper's Adventures'* dialog is fast and funny, and nearly always contains a hidden historical fact.

4) When children reach the HISTORY QUIZ at the end of each act, encourage them to carefully consider their answers. Every answer is given during the course of the act, and there are no trick questions. Whenever an

answer is revealed during the course of a game, all the text will be highlighted in yellow, and a fanfare will sound. A high score on the quiz will result in hilarious animation!

5) Read the documentation with your children. You'll both enjoy it more.

6) Finally, discuss the game with your children after each play session. You'll be amazed at what they've learned while having so much fun.

## The Truth Icon

Both Pepper and Lockjaw have a TRUTH icon in their icon bars. The TRUTH icon is specific to *Pepper's Adventures in Time*, so it isn't included in your technical manual.

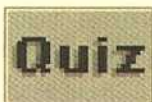
When you click this icon on almost any object on the screen, it will let you know if the object is historically accurate (whether it belongs in this time period), or if it is an anachronism (it doesn't belong). The answer will always be TRUE or FALSE,



followed by an explanation. It is important for children to use this icon, as many answers

to the History Quiz will be revealed here.

Both Pepper and Lockjaw have a Quiz icon in their icon bars. When you click on this icon, a list of facts to look for will appear. These are the facts you will need to discover to prepare for the History Quiz at the end of the act. After the History Quiz facts, there will always be a list of the player's major goals for the next act. If you forget what you're looking for at any point in the act, you can check the facts by using the Quiz icon.



## The Talk Menu

When you talk to some of the characters in *Pepper's Adventures*, you will have the ability to use a Talk Menu to ask them about certain subjects. Every talk menu has four pictures, each one representing someone you can talk about. Three of the pictures are always the same. They represent Ben Franklin, the Pughs, and Lockjaw. The fourth picture represents the character to whom you are talking.



To use the Talk Menu, just click the microphone on the character with whom you want to talk. If the character has a Talk Menu available at


that time, the Menu will appear. Now click on the picture you want to talk about. The Talk Menu will vanish, and you will converse with the character about that subject. When you're done with the conversation, you can bring up the Talk Menu again by clicking your microphone on the character. When you've exhausted a Talk Menu with a particular character, it won't appear again until the next act, when you can find out all new information.

You can exit a Talk Menu at any time by clicking anywhere outside the Menu. If you don't want to ask about every subject on a Talk Menu, you don't have to. You can just walk away after the Talk Menu vanishes. We suggest that you talk to each character as much as you can, though. You just might find out something really useful!

## What About That Dog?

In *Pepper's Adventures in Time*, children get the opportunity to play as two different characters: The young adventurer Pepper, and her faithful dog, Lockjaw. A complete explanation of Pepper's icon bar can be found in your technical manual. Lockjaw is another story entirely!

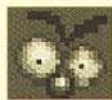
When playing Lockjaw, a different icon bar will appear. The icons on this bar have specific meanings.

The WALK icon causes Lockjaw to move about the screen. Just click the  icon where you want him to go.

The NOSE icon allows Lockjaw to sniff people and things. Click the NOSE icon on anything you want to smell.



The EYE icon causes Lockjaw to look at things. Click this icon on anything you want to look at.



The TEETH icon can be used for chewing, eating, drinking, or biting. You never know exactly how this icon will react until you click it on something.



**Tart Words make no Friends: a spoonful of honey will catch more flies than a Gallon of Vinegar.**

*(Being nice to people will get you a lot further than being mean to them.)*



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## Ben Franklin's 13 Virtues

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Ben Franklin came up with these thirteen rules for an ideal life when he was very young. Because he was a virtuous and thoughtful man, he truly tried to live by them. Because he was human, he didn't always succeed!

1. **Temperance:** Eat not to dullness, drink not to elevation.

*Don't pig out. Eating and drinking too much are bad for you.*

2. **Silence:** Speak not but what may benefit others or yourself. Avoid trifling conversation.

*Don't talk too much. It's annoying, and makes you look silly.*

3. **Order:** Let all your things have their places. Let each part of your business have its time.

*Try to keep your things organized. Make good use of your time.*

4. **Resolution:** Resolve to perform what you ought. Perform without fail what you resolve.

*Make up your mind to do the things you should, then really do them.*

5. **Frugality:** Make no expense but to do good to others or yourself, (i.e., waste nothing.)

*Don't buy things that you don't really need. Don't waste anything.*

6. **Industry:** Lose no time. Be always employed in something useful. Cut off all unnecessary actions.

*Don't waste your time. You should always be doing something useful. Don't do things you don't really need to do.*

7. **Sincerity:** Use no hurtful deceit. Think innocently and justly; if you speak, speak accordingly.

*Don't tell mean lies about people. Try to be fair to people, and don't say things you don't mean.*

8. **Justice:** Wrong none by doing injuries or omitting the benefits that are your duty.

*Don't do bad things to people, or let bad things happen to people because you didn't help them.*

9. **Moderation:** Avoid extremes. Forbear resenting injuries so much as you think they deserve.

*Don't freak out about things. Don't hold a grudge about mean things people do to you; it's probably not as big a deal as you think it is.*

10. **Cleanliness:** Tolerate no uncleanness in body, clothes, or habitation. *Keep yourself, your clothes, and your house nice and clean.*

11. **Tranquility:** Be not disturbed at trifles or at accidents common or unavoidable.

*Don't sweat the small stuff. If you have a little bad luck, don't make a big deal out of it. Chill.*

12. **Chastity:** Rarely use venery but for health or offspring—never to dullness, weakness, or the injury of your

own or another's peace or reputation.

*Don't overindulge in physical pleasures. Don't kiss and tell.*

13. **Humility:** Imitate Jesus and Socrates.

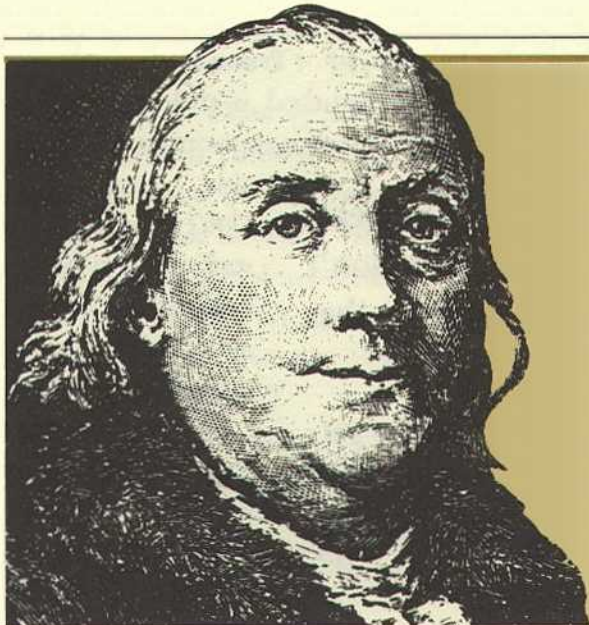
*Be humble and kind. Try to behave in a noble and gentle fashion.*

## **If your head is wax, don't walk in the Sun.**

*(If you've got a weakness, don't expose yourself to it.)*







## The Life of Benjamin Franklin, American Hero!

Benjamin Franklin was born in Boston on Milk Street, across the way from the Old South Church, on January 17, 1706. Boston was a small colony then, but most families were big. Ben

was the tenth and youngest son of his father Josiah's seventeen children. Some of Ben's siblings didn't survive to adulthood. Life was very hard in the 18th century.

Benjamin Franklin is born in Boston and baptized at the Old South Church.



1718

The "Silence Dogood" essays are published by Ben anonymously in James' paper, the *New England Courant*.

1723

Ben goes to England and works as a printer.



1726

1706

1722

1724-26

1718 Ben becomes a printer's apprentice to his brother James.

Ben runs away to Philadelphia.

Ben returns to Philadelphia.

As he got older, the bright, funny little Ben stood out in the crowd. He was quick-witted, and very good with words. He learned to read all by himself, at the age of five. Ben's father Josiah was a Leather Apron man; he was a craftsman who worked with his hands. Josiah decided early on that Ben would be wasted as a tradesman, so he decided to send Ben to Latin School, to begin training for a life in the clergy. Ben did very well at the Latin School, but

when he was eight, his father realized he could no longer afford to send the boy there. Ben began studies at an ordinary writing and arithmetic school.

Ben's mother, Abiah, also made sure that Ben was educated in other ways. When the family could afford to, she and Josiah would invite a guest to their home for dinner, in hopes that the guest would tell interesting or amusing stories. Josiah and Abiah made sure they

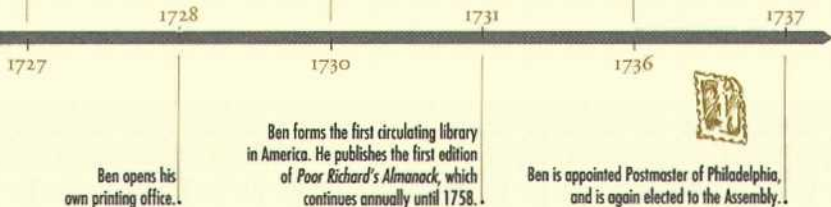
**He that can compose himself, is wiser than he that composes books.**

*(Being fully in control of yourself is more important than being in control of anything else.)*

The Junto, or Leather Apron Club, is formed. This was a group of young men who enjoyed reading, science, and philosophy.

Ben becomes the sole owner of the *Pennsylvania Gazette*. He is also appointed to the Pennsylvania Assembly. He marries Deborah Read on 9/1/1730.

Ben is appointed clerk of the Assembly. He founds the Union Fire Company.



invited people in all sorts of professions. Ben and the other young Franklins learned a lot about the world around them in this way.

When Ben was ten, finances forced Josiah to take him out of school altogether. Josiah had the boy start running errands for his candle and soap making shop. He wished that he could train his youngest son as a clergyman, but it was just too expensive. He decided Ben would have to learn a trade.

Ben wasn't wild about the idea. To learn a trade, he would have to become an apprentice. That meant he would have to sign a contract, saying he would obey his master in all ways until he was 21 years old. Ben was fiercely independent, even at his young age. He just couldn't stand the thought of smelling the horrible smells of the soap making shop

## Those who in Quarrels interpose, must often wipe a bloody nose.

*(If you get involved in other people's arguments, you might get hurt.)*

for another eleven years. Finally, he gave in and became an apprentice to his brother James, a printer. At

Ben invents the Franklin stove, proposes the University of Pennsylvania, establishes the American Philosophical Society, organizes defenses against the Indians on the frontier.

Ben retires from active business. He is elected to the Philadelphia Common Council.

Ben's book, *Experiments and Observations on Electricity*, is published in London. The Pennsylvania Hospital is chartered, and Ben is once again elected to the Pennsylvania Assembly. He is reelected annually until 1764. He also writes *Observations Concerning the Increase of Mankind*.

1747

1749

1752

1742-44

1748

1751

Ben first writes of his electrical experiments. He writes *Plain Truth*, and organizes the first militia in Pennsylvania.

Ben becomes the Grand Master of the Pennsylvania Masons.

Ben performs the famous Kite/Key experiment. He also founds the first American fire insurance company.



least printing didn't stink!

James was a harsh master. He didn't want the other apprentices to think he was giving Ben special treatment, so he was very hard on his little brother. Ben worked hard, but he dreamed of getting away. He thought about going to sea like one of his older brothers. He read more than ever, eating very little

and saving his food allowance to buy books. Ben once read a book which described many different swimming strokes, and in no time he became an expert

swimmer. He began to invent things, such as paddles for swimming faster, and came up with the idea of using a kite to pull himself through the water. But he still was an apprentice, and he still wasn't happy. Ben wanted more out of life.

Ben developed his writing skills more every year.

When he was six-

teen, he came up with a bold plan to test his ability. His brother published a newspaper, the *New England Courant*. In secret, Ben wrote a letter to the *Courant*, using

## Genius without Education is like Silver in the Mine.

*(You're wasting your brains if you don't go to school, no matter HOW smart you are.)*

Ben receives honorary Master of Arts degree from Harvard and Yale, and also receives the Copley Medal of the Royal Society. He is appointed Deputy Postmaster General of North America.

1754

Ben is elected Fellow of the Royal Society. He is appointed Postmaster General of the colonies.



1757

Ben receives an honorary Doctor of Laws degree from the University of St. Andrews.



1760

1753

Ben aids General Braddock in defending Pennsylvania against Indian attacks.

1756

Ben goes to London as an agent for the Pennsylvania Assembly, to plead the cause against the Proprietors (the Penns). Ben writes *The Way to Wealth*.

1759

Ben writes *Interest of Great Britain Considered*. Secures Privy Council approval of taxation of proprietary estates in Pennsylvania.



the made-up name of Silence Dogood. The letter was a funny comment on the mudholes that pocked the Boston streets. James thought it was the funniest thing he ever read, and printed it. All of Boston was talking about who the mysterious Silence might be! The City Council of Boston read the paper, too, and was embarrassed. They quickly had the mudholes filled in. In the following weeks, "Silence" wrote letters about the town stocks, the poor treatment of apprentices, and other social

problems. The whole town was so shocked when Ben finally revealed he was Silence Dogood!

## Fish and Visitors stink after three days.

*(Visitors who stay longer than three days start to get irritating.)*

Unfortunately, all the attention Ben received made his brother James more than a little jealous. He began to treat Ben worse than ever. Finally, Ben could stand no more. At the age of 17, he boarded a sloop headed for Philadelphia, breaking his apprenticeship contract. Ben thought he would get work as a "printer's boy"; a printing assistant. But he was so confident and so good at

\*Ben receives an honorary Doctor of Civil Law degree from Oxford. He returns to Philadelphia.



1763

\*Ben returns to London late in the year as an agent for Pennsylvania.

1765

\*Ben is examined on his stand on the Stamp Act before the House of Commons.

1767

1762

Ben tours the Northern colonies to inspect the post offices and to establish links with Canada.

1764

Ben works for the repeal of the Stamp Act, and writes many anonymous pieces for the London Press.



1766

Ben is appointed Agent for Georgia.

what he did, that he got a job as a full printer almost immediately. Bursting with pride, he wrote his family to let them know he was all right.

Ben loved Philadelphia. He met other young men there who loved to read, and they formed a group called the Leather Apron Club. They met every Friday to discuss everything from philosophy to science. By the time he was twenty-four, Ben had his own print shop. He married a pretty young woman named Deborah Read, and started a family.

Ben became more and more influential in Philadelphia. His original ideas about things captured people's

attention. He proposed and created the first circulating library in town. He helped organize Philadelphia's first fire department. He gave the town suggestions for better street lamps, for the disposal of garbage, and for defense against the Indians. His amusing and informative *Poor Richard's Almanack* was so popular, it once went through three print runs in a month. A new edition was released every year for twenty-five years.

Ben's inventions and experiments really made him famous. His Franklin Stove was called "...the greatest gift to the Human Race" by a Philadelphia newspaper.

Ben writes *Causes for American Discontents* before 1768.



1769

Ben begins a newspaper propaganda campaign against the Townshend duties; the duties are repealed, except on tea. (The continuing tax on tea would later spur the Boston Tea Party.) Ben is appointed agent for Massachusetts.

1771

Ben is elected to the French Academy of Sciences.



1774

1768

Ben is elected president of the American Philosophical Society. He is reelected annually for the rest of his life. Ben is appointed agent for New Jersey.

1770

Ben begins his *Autobiography*.

1772

Ben is accused of being a rabble rouser and a hypocrite; stirring up things at home while trying to smooth them over in London. (Not true: Ben was still in favor of keeping the Empire whole at this time.) He is attacked before the Privy Council, and dismissed as Deputy Postmaster General. This is the turning point in his decision to support the rebellion.



Everyone was delighted when he invented bifocals, for people who are both near and farsighted. Ben's experiments with electricity got him the attention and admiration of scientists around the world. The King of France sent him a letter of congratulations. Universities gave him honorary degrees, and he became Dr. Franklin. The Royal Society of England gave him a medal.

In 1757, Ben was sent to London as a representative of Philadelphia. He and his son William rented a house on Craven Street. Ben was treated like a king by his

housekeeper, Mrs. Stevenson, and enjoyed his time in London very much. Ben had fun, but he was really there to do an important job. Ben was a brilliant diplomat, and he tried his hardest to keep relations between

Britain and America friendly. But despite his best efforts, Philadelphia was still treated like a colony of second-class citizens.

Ben was a loyalist for most of his life, and was in favor of British sovereignty over the Colonies for many years. It bothered him, though, to see the British treat the colonies

## You may delay, but Time will not.

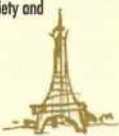
*(Don't let life pass you by.)*

\*Ben returns to America. He is elected to the Continental Congress and Pennsylvania Committee of Safety. He becomes active in his support of war measures. He submits the Articles of Confederation of the United Colonies.

1776

\*Ben is lauded by Parisian society and French intellectuals.

1778



\*Ben is appointed minister to France.

1781

1775

Ben helps draft and sign the Declaration of Independence. He presides at the Pennsylvania Constitutional Convention. He then sails for France as an American commissioner.

1777

Ben negotiates and signs a treaty of alliance with France.

1779



Ben is appointed a commissioner to negotiate peace.

badly, year after year. Finally, in 1764, he was called before the British Government's Privy Council, and told to explain his activities on behalf of America. He was insulted, yelled at, and humiliated. That was the final blow. Ben returned to America ready to do battle. He discovered that America and Britain were already at war—and he was delighted! Ben fully backed the American Revolution.

In 1776, Ben helped with the writing of the Declaration of Independence. In the fall of that year, he was sent to France to try and talk the French Government into entering the war on the side

of America. He was successful. He remained in France throughout the duration of the war, and when it was over in 1783, he helped write the peace treaty.

In 1787, Ben was a delegate to the Constitutional Convention. He was very old by this time, and often fell asleep during the proceedings, but he still contributed a lot to the writing of the Constitution.

By the time Benjamin Franklin died in 1790, He was one of the most famous men in the entire world. He was respected and admired by everyone then, as he still is today.

Not bad, for a “printer’s boy”!

With John Adams and John Jay, Ben negotiates a treaty of peace with Great Britain. He writes *Information to Those Who Would Remove to America*.

1784

Ben returns to Philadelphia. He is elected president of the Pennsylvania Society for Promoting the Abolition of Slavery. He is appointed a delegate to the Constitutional Convention.

1787

Ben finishes his *Autobiography*.



1790

1782

Ben negotiates treaties of commerce with Prussia and other European nations. He resumes writing his *Autobiography*.

1785

1787 Ben attends the Constitutional Convention.

1789

Benjamin Franklin dies in Philadelphia at the age of 84.

84





# WORDSEARCH

## Can You Find The Twenty Terms?

Words can be vertical, horizontal or diagonal, forwards or backwards.

S V S T O C K S Z P W T R H R M N N N J  
 V W E U H X H Z B B D O A G A B A T U R  
 I D N A P S J C A M U R R M Z K M P G K  
 L G A B T E P R A C A O C J A Y D W U J  
 A Y B P E O R E Q M P L Q Y A S M Z N Q  
 A E R M A N S I O N W R I J I F H Y W T  
 G J Y A D V A W P C K A T T R P D Y R W  
 E D S D S X K F M M Q P H Z O S T I L E  
 E P S W E S A Y R T N E S S T L F E M U  
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 S O P T R X J M A K U R C W E E I E K W  
 W C X K E E E A E H C G S Y V Z Y N L U  
 A B Y G C M N K R D E W N Q N I N D Y C  
 D P H S C E S I N V W C T I I U J Z R A  
 D A R G K D N C L D Y Y I Y L Y O T K R  
 L E E O U U O Z F L A G C V T L G W T R  
 I E P C O J M W D L I X J E E M I Y R I  
 N C P R S V M R P X O M T G I X P H X A  
 G L I C J S O T B G Y E I P O M P S G  
 F Q N K B W C T L L O T R K F J W O C E

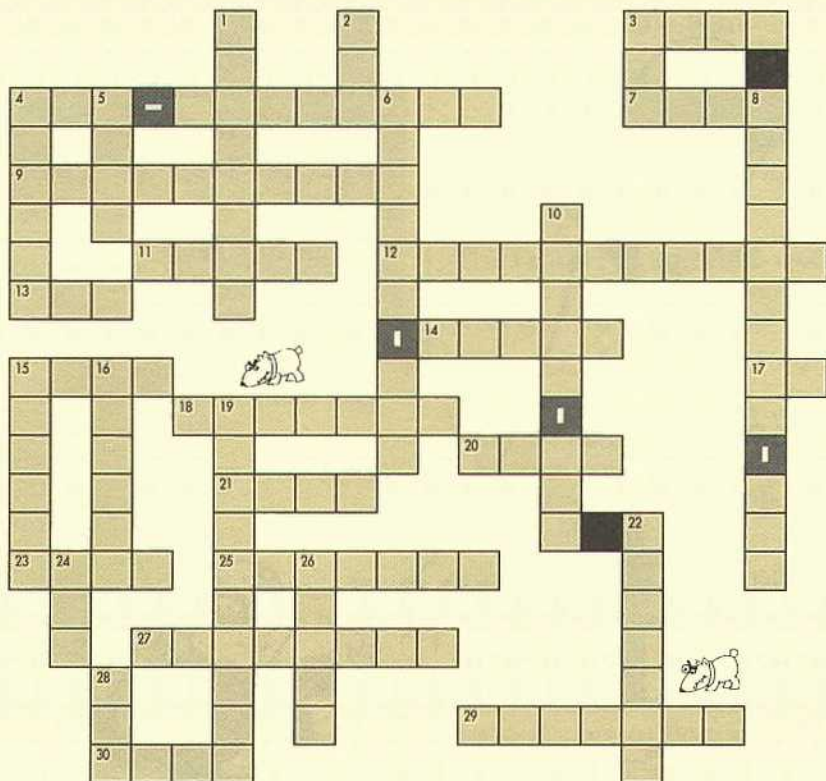
CARPETBAG	LEYDENJAR	RUTABAGA	SWADDLING
CARRIAGE	MANSION	SENTRY	TOLL
COMMONS	MILLINERY	SHILLING	TRIFLE
EMISSARY	NIPPER	STILE	VICE
INVENTOR	PARLOR	STOCKS	VILLAGE

### Crossword Puzzle Down:

- Lockjaw ran into General Pugh's \*\*\*\*\*.
- Colonial people wrote with a quill pen and \*\*\*.
- Pepper thinks General Pugh is a dirty \*\*\*.
- The town where Ben Franklin grew up.
- The \*\*\*\* of Ben Franklin has gone down in history!
- A bottle that can store electricity.
- Something Ben invented that prevents lightning from hitting houses.
- A tax on official papers, playing cards, and newspapers.
- As a boy, Ben liked to swim in the \*\*\*\*\*.
- Only Pepper can stop Pugh's reign of \*\*\*\*\*.
- When you want to prove a theory, you perform a scientific \*\*\*\*\*.
- Ben Franklin opened the first circulating \*\*\*\*\* in Philadelphia.
- Ben Franklin used to nap outdoors in the nude. He called it an "\*\*\*\* bath".
- Bonbons are a type of \*\*\*\*\*.
- You put a lightning rod on \*\*\* of your house to protect it.

Down: 1. CARRIAGE 2. INK 3. BAT 4. BOSTON 5. NAME 6. LEYDEN JAR 8. LIGHTNING ROD 10. STAMP TAX 15. HARBOR 16. TERROR  
 19. EXPERIMENT 22. LIBRARY 24. AIR 26. CANDY 28. TOP  
 Across: 3. BEAD 4. BEN FRANKLIN 7. TALL 9. SHILLING 11. SUGAR 12. ELECTRICITY 13. NOT 14. CHOMP 15. HATS 17. NO 18. DEB.  
 19. GRAY 20. KITE 21. POOR 23. RAPE 25. ROCKING 27. APOLOXNCA 29. LIBERTY 30. POST

## PEPPER'S ADVENTURES CROSSWORD



### Crossword Puzzle Across:

3. When Ben was a boy, he used to stay up late and \*\*\*\*. (hint. This was also Deborah Franklin's maiden name!)
4. The main historical figure in *Pepper's Adventures in Time*!
7. When Lockjaw's feeling friendly, he wags his \*\*\*\*.
9. Quakers lived a life of \*\*\*\*\*. (the opposite of complexity!)
11. Bonbons and strawberry petit fours have lots of \*\*\*\* in them.
12. The kite/key experiment was meant to prove that lightning is made of \*\*\*\*.
13. What Pepper would say if you asked her to wear a frilly dress.
14. If people irritate Lockjaw, he gives them a serious \*\*\*\*.
15. A millinery shop sells wigs and \*\*\*\*.
17. What Ben Franklin said when they asked him if he liked the Stamp Tax.
18. Mrs. Ben Franklin's first name.
20. What Pepper uses to get around to the back of Penn Mansion.
21. \*\*\*\* Richard's Almanack.
23. In colonial times, salt, sugar, and molasses were all \*\*\*\* luxuries.
25. Ben Franklin invented the \*\*\*\*\* chair.
27. Ben invented a musical instrument called the glass \*\*\*\*\*.
29. The \*\*\*\*\* bell has a crack in it.
30. Ben Franklin once went on a long trip to inspect colonial \*\*\*\* offices.



## A Schematic for Ben Franklin's Famous Kite/Key Experiment

(In which he proved that lightning from the Heavens is actually Electrical Fire.)

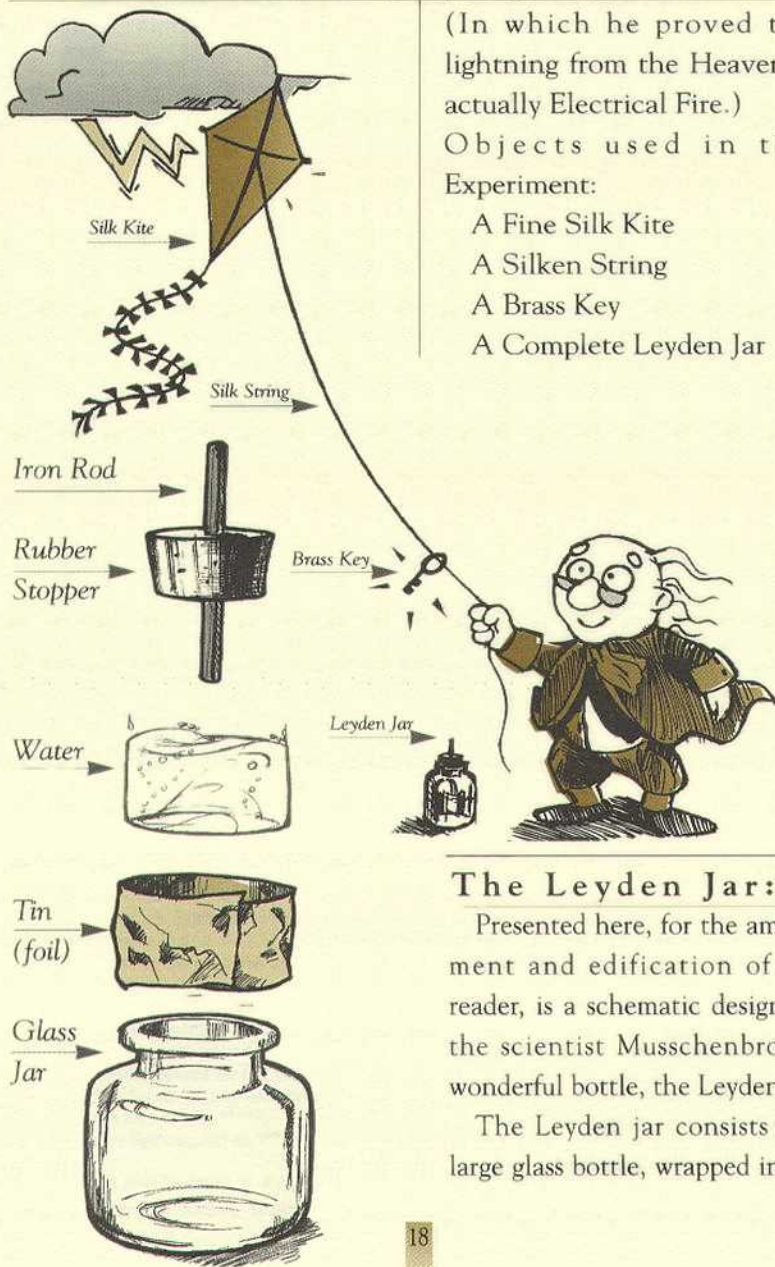
Objects used in this Experiment:

A Fine Silk Kite

A Silken String

A Brass Key

A Complete Leyden Jar



### The Leyden Jar:

Presented here, for the amusement and edification of the reader, is a schematic design for the scientist Musschenbroek's wonderful bottle, the Leyden jar.

The Leyden jar consists of a large glass bottle, wrapped inside

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## The Answers to the Postal Clerk's Questions About Ben

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*NOTE: These questions may come in any order!*

Was Ben born on Milk Street in Boston?

TRUE

Answer true or false, kid: Was Ben the oldest child in his family?

FALSE

Ben really loved the soap-making business, right, kid?

FALSE

Silence Dogood is Ben's cousin. True or false, kiddo?

FALSE

Ben ran away to Philadelphia when he was seventeen, right?

TRUE

The Leather Apron Club was a bunch of guys who worked with leather, right, kiddo?

FALSE

Answer true or false, lad: The King of France once sent Ben a letter of congratulations for his electricity experiments.

TRUE

Is Ben planning on going to England this year, kid?

TRUE

Ben met Deborah when he was just a boy in Boston. True or false, lad?

FALSE

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## Its Nature and Design

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and out with tinfoil. It may be filled with water or iron shot, and should be stoppered with a rubber cork pierced through by an iron rod.

The Leyden jar is capable of storing powerful charges of elec-

trical fire, and should be handled with extreme care. The noted American scientist Ben Franklin once electrocuted and cooked a turkey with such a jar, but not before he nearly electrocuted himself.



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## Just a Few of Ben Franklin's Incredible Inventions

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### The Lightning Rod

Lightning damage to houses was a very real problem in the 1700's, as it still is today. Ben Franklin discovered that lightning could be attracted by an iron rod placed on the highest peak of a house. The lightning would be drawn down along the house by an iron wire which was attached to the rod

at one end, and buried deeply in the ground at the other. This would cause the electricity to disperse harmlessly into the earth, rather than blowing the house up! Almost all tall buildings in the United States have lightning rods on them today.

### The Ben Franklin Stove

It was (and still is) very cold in Pennsylvania in the winter, and Ben Franklin was a man who loved his comforts. Perhaps this was what inspired him to invent the "Pennsylvania Fireplace". This was essentially a combination of the common fireplace, and the freestanding German stove. It was a metal box which stuck out from the fireplace, so people could enjoy seeing the fire, but the heat didn't just go up the chimney and vanish. It was

made to circulate through a pipe before escaping out the chimney, so the whole room would be warmed. A newspaper journalist of the time was quoted as saying about the stove: "This is the greatest gift to the human race. No longer shall our faces burn and our backs freeze at the fireplaces. Thanks to you, Mr. Franklin. Thanks from the human race." Several versions of the Franklin stove are still used today.

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## Bifocals

Ben Franklin did not invent eyeglasses; those have been around since the middle ages, but he was the first person to recognize that people can be both farsighted AND nearsighted. Ben noticed that things in the distance appeared blurry to him, but when he read a book, he had to hold it away from his face. If it were

too close, he couldn't read it. So Ben invented glasses with two parts to each lens. The top part corrected long-distance vision, and the bottom part was for reading. Bifocals are, of course, still used today, but they are often made so that the line down the middle isn't visible. Ben would have liked that—he was very vain!

**Ill customs  
and bad  
Advice are  
seldom  
forgotten.**

*(If you're obnoxious, everyone will remember it, and think you're always like that.)*

## The One-Armed Desk Chair

Always an advocate of efficiency, Ben invented the one-armed desk chair. It saved space, and eliminated the need for tables in classrooms and meeting rooms. You probably sit at one in YOUR school classroom!



## The Book Arm

Ben invented two kinds of book arms. One was a short, jointed instrument, which attached to a chair and held the reader's book up for him. A form of this invention exists today, for the use of physically challenged people. The other was a sort of long artificial arm which could grasp books and other objects on high shelves and bring them safely down. This basic idea for this invention has been adapted in dozens of ways since then, and is used for everything from picking cherries to installing electronics.

## The Library Stepstool

Ben had a huge library, and reading was one of his favorite things in the world. After a while, though, he got tired of having to climb shaky ladders to reach the upper shelves. So, he invented the folding stepstool—a piece of furniture you can find in almost any library in the country. That way, he could reach his favorite books, then sit down and read them.



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## The Battery

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Ben Franklin perfected and refined the Leyden jar, so that it could hold greater and greater charges of electricity for longer periods of time. He called this new storage vessel a “battery”. Although modern batteries are very different, the name and the concept are the same.



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## The Armonica

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Ben Franklin loved music, and enjoyed listening to many different instruments. Eventually he invented an instrument called the Glass Armonica. This consisted of a set of graduated glasses mounted on a horizontal spindle. A crank was used to rotate the glasses through a trough of water. When the wet rims of the glasses were touched, they produced a beautiful, soft warbling sound. Mozart and Beethoven wrote music for the Armonica, and it was said to be Marie

Antoinette’s favorite instrument. Sadly, there are almost no Armonicas in existence today. It is considered to be the precursor of the Glockenspiel, a xylophone-like instrument found in some modern orchestras.

You can make a sort of Glass Armonica of your own! Take several wine goblets, and fill them with varying depths of water. Next, dip your finger in the water and run it lightly around the edge of each glass. You’re playing the Armonica!





## WONDERFUL WORDS

Some Exotic Vocabulary Words You'll Encounter in *Pepper's Adventures!*

**abundant:** \ə-'bʌnt-dənt\ (adj)

Plentiful, more than enough, well-supplied.

**anachronism:** \ə-'næk-rə-,niz-əm\

(n) The representation of something existing somewhere other than its proper time, such as a spaceman in the 19th century.

**apprentice:** \ə-'prent-əs\ (n)

A person under a legal agreement to work a specific amount of time for a master craftsman in a trade or craft in return for instruction.

**aquatic:** \ə-'kwä-tik\ (adj)

Growing or living in or on water. For example, a sea otter is an aquatic animal.

**artistic license:** \är-'tis-tik

'līs-ən(t)s\ (n) The freedom to deviate from strict conduct, rule, or practice in the name of art. For example, changing the age of an actual historical character in your novel or game is artistic license.

**basenji:** \bə-'sen-jē\ (n.)

A small, barkless African dog, similar in build to a fox terrier. Basenjis are quite good at

climbing trees to get to birds' nests. The word Basenji means "bush thing" in Afrikaans.

**besech:** \bi-'sēch\ (v) To ask sincerely, to implore, entreat, or beg.

**boutique:** \bü-'tēk\ (n) A small shop or small department in a store specializing in gifts and fashionable accessories.

**boycott:** \'boi-,kät\ (v) To join together in refusing to deal with someone or something; to refuse to buy, sell, or use a product in order to punish or coerce some person or organization. For example, people boycotted tuna when dolphins were being killed by tuna companies.

**cad:** \'kad\ (n) A man or boy who doesn't act like a gentleman: A man without manners.

**capitalism:** \'kap-ət-əl-,iz-əm\ (n) The economic system in which all or most of the businesses are privately owned and operated for profit under fully competitive conditions. The United States economy is based on capitalism.

**chlorinate:** \ 'klōr-ə-,nāt \ (v)

To treat or combine with chlorine (a poisonous chemical bleaching agent), especially to put chlorine into water to purify. A swimming pool usually has chlorinated water.

**commons:** \ 'kām-enz \ (n) A section of land owned or used by all the inhabitants of a particular place, such as a park in a city or town.

**confection:** \ kən-'fek-shən \ (n) Any kind of candy, pastry, or other sweet preparation such as ice cream or preserves.

**consciousness:** \ 'kän-chə-snəs \ (n) The state of being conscious; aware of one's feelings and what is happening around one, etc, OR, the totality of one's thoughts, feelings and impressions, the conscious mind.

**conscript:** \ 'kän-,skript \ (v) To force into service. A modern example of this is the draft. In the 1700's, young men were often kidnapped in port towns and conscripted onto a ship.

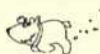
**constitution:** \ 'kän(t)-stə-'t(y)ū-shən \ (n) The system of principles and basic laws that govern a state, society, or corporation. Essentially, it's an agreement between people.

**constitutional convention:** \ 'kän(t)-stə-'t(y)ū-sh n-ə'l kən-'ven-chən \ (proper n) The gathering where the Constitution was drafted and approved, pulling the thirteen colonies together into the United States. Opened May 25, 1787, closed September 17 of that same year.

**cosmic:** \ 'küz-mik \ (adj) Of the cosmos; relating to the universe as an orderly whole. For example, "cosmic consciousness" would be an awareness of the universe exclusive of the earth.

**cosmos:** \ 'küz-məs \ (n) The universe considered as a harmonious and orderly system.

**courant:** \ ku-'rānt \ (n) A lively French dance with running or gliding steps. Strangely, the word was used as a name for several newspapers, such as the Boston Courant.



**crumpets:** \ 'krəm-pətʒ \ (n)

Small, unsweetened batter cakes, usually toasted before serving. A staple of British tea time.

**curfew:** \ 'kər-(,)fyü \ (n)

A time, generally in the evening, set as a deadline beyond which the inhabitants of an area may not appear on the streets or in public places. Sometimes a curfew applies only to certain inhabitants, such as children.

**delectable:** \ 'di-'lek-tə-bəl \ (adj)

Very pleasing, delightful, especially to the taste; delicious.

**deranged:** \ 'di-'rānjd \ (adj)

Mentally unsettled, disordered, or insane.

**dictator:** \ 'dik-,tāt-ər \ (n)

A ruler with absolute power and authority, particularly a tyrant.

**diligent:** \ 'dil-ə-jənt \ (adj)

Persevering and careful in work, hardworking, industrious.

**doctrine:** \ 'däk-trən \ (n)

Something that is taught: A teaching or lesson.

**dogma:** \ 'däg-mə \ (n)

A doctrine or belief, or a collection of beliefs.

**drivel:** \ 'driv-əl \ (n)

Silly, stupid, childish or nonsensical talk.

**fatwit:** \ 'fat-'wit \ (n)

An idiot or fool. See "ninnyhammer".

**flax:** \ 'flaks \ (n)

Any member of the genus of the flax family; a family of slender, tall, annual plants. ALSO; the pale yellow threadlike fibers of these plants, used for spinning.

**fop:** \ 'föp \ (n)

A vain, affected man who pays too much attention to his clothes and appearance; a dandy.

**fripperies:** \ 'frip-(ə)rē \ (n)

Cheap, gaudy, or tacky clothes; clothes meant for showing off.

**frivolity:** \ 'friv-'äl-ət- ē \ (n)

The quality or condition of being frivolous, i.e., being of little value or importance, trifling or silly.

**frugal:** \ 'frü-gəl \ (adj)

Not wasteful; thrifty, economical.

**gangrene:** \ 'gan-grēn \ (n)

Decay of tissue in a part of the body when blood supply is cut off by disease or injury.

**gazebo:** \ 'gə-'za-(,)bō \ (n)

A turret, windowed balcony, or summerhouse from which

one can look at the surrounding scenery.

**George III:** (proper n) The king of Great Britain (England) during the time of the American Revolution.

**glutton:** \ 'glət-ən \ (n) A person who greedily eats and drinks way too much.

**gout:** \ 'gaut \ (n) A disease caused by a defect in the metabolism. Symptoms include uric acid in the blood and deposits of uric salts in tissues such as the hands and feet. Causes swelling and extreme pain, particularly in the big toe.

**graphite:** \ 'graf-īt \ (n) A soft, black, lustrous form of carbon found in nature and used as lead for pencils, for lubricants, in electrodes, etc.

**harpsicord:** \ 'härp-si-,ko(ə)rd \ (n) A stringed musical instrument with a keyboard; a predecessor of the modern piano.

**hassock:** \ 'has-ək \ (n) A firmly stuffed cushion used as a footstool or seat.

**hemp:** \ 'hemp \ (n) A tall, Asiatic plant of the hemp

family, grown for the tough fiber in its stem. OR, the fiber itself, which is used to make rope.

**hippy:** \ 'hip-ē \ (n) A member of the "counter-culture" in the 1960's, characterized by distinctive clothes and a liberal belief system. Essential beliefs: Peace, protest, love, not participating in mainstream society.

**hyena:** \ 'hī-ē-nə \ (n) Any of a group of wolflike animals from Africa and Asia, with powerful jaws, a bristly mane, short hind legs, a characteristic shrill cry, or "laugh", and a bad attitude.

**illuminate:** \ 'il-'ü-mə-,nāf \ (v) To light up, or brighten. For example, a lamp could illuminate a dark room.

**inanimate:** \ ('in-'an-ə-mət \ (adj) Not endowed with life, not living. Dull or spiritless. For example, a dog is alive. A statue of a dog is an inanimate object.

**indenture:** \ in-'den-čər \ (n) A written contract binding a person to work for another person for a certain length of time, such as an apprentice to a master.



**indentured servant:**(n) A person bound by a contract of indenture. See "indenture".

**indigenous:**\in-'dij-e-nəs\ (adj) Existing, growing, or produced naturally in a region or country. Native. For example, coyotes are indigenous to North America. Hyenas are not.

**irradiate:**\ir-'ād-ē-,āf\ (v) To expose to, or treat with X-rays, ultraviolet rays, radium, or some other form of radiant energy.

**karma:**\'kär-mə\ (n) In Buddhism and Hinduism, the totality of a person's actions, thought to determine his fate in his next existence. Loosely translated, fate or destiny. For example, a person who is bad all of his life has bad karma.

**leyden jar:**\,līd-'n- jər\ (n) An early device for storing electricity, consisting of a glass jar lined with tin, filled with water, and equipped with a conducting rod that passes through an insulated stopper. It could be considered one of the first batteries.

**lush:**\'ləsh\ (adj) Characterized by a luxuriant or rich growth

of vegetation. For example, the tropical rain forest is lush with plants.

**lye:**\'lī\ (n) A strong alkaline solution obtained by leaching wood ashes. Lye was used in cleaning and making soap in past centuries.

**mahogany:**\mə-'häg-ə-nē\ (n) Any of a genus of tropical trees of the mahogany family, characterized by dark, heavy heartwood. OR, the actual wood of any of these trees.

**millinery shop:**\'mil-ə-,ner-ē\ (n) A shop that specializes in selling hats, wigs, and headdresses.

**mush:**\'məsh\ (n) A thick porridge made by boiling oatmeal in water or milk.

**musket:**\'məs-kət\ (n) A smooth-bore, long barreled firearm fired from the shoulder and used especially by infantry soldiers before the invention of the rifle.

**musty:**\'məs-tē\ (adj) Having a stale, moldy smell or taste, such as an unused room or food kept in a damp place.

**nautical:**\'not-i-kəl\ (adj) Having to do with sailors, ships, or navigation.

**nefarious:** \ni-'fār-ē-əs\ (adj)

Very wicked, bad, or villainous.

**neoclassical:** \,nē-ō-'klas-ik-i-kəl\

(adj) A revival of classical Greek and Roman style and form in art and architecture. Neoclassical style was most popular in England from 1660 to 1750.

**ninnyhammer:** \ 'nin-ē-,ham-ər\

(n) An idiot or fool. This insult became very popular in Edwardian England. See "fatwit".

**odious:** \ 'ōd-ē-əs\ (adj)

Deserving hatred or loathing; disgusting, offensive.

**parliament:** \ 'pär-lə-mənt\ (n)

An official or formal conference or council, usually concerned with government or public affairs. *or*, the national legislative body of Great Britain, composed of the House of Commons and the House of Lords.

**penicillin:** \,pen-ə-'sil-ən\ (n)

An antibiotic derived from penicillium mold. An antibiotic is a substance that stops the growth of bacteria and other microorganisms. It prevents infection.

**petit four:** \,pet-ē-'fō(ə)r\ (n)

A small cake cut from sponge

cake and decorated with icing.

**pleistocene:** \ 'pli-stə-,sēn\ (adj)

Designating or of the first epoch of the Quaternary Period in the Cenozoic Era, characterized by the spreading and shifting of continental ice sheets and by the appearance of modern man.

**porcelain:** \ 'pōr-s(ə)-lən\ (n)

A hard, white, nonporous, translucent variety of ceramic, made from kaolin, feldspar, and quartz or flint; porcelain dishes or ornaments. (adj) Made of porcelain.

**potpourri:** \,pō-pu-'rē\ (n)

A mixture of dried flower petals and spices, kept in a jar or cushion for its fragrance.

**prominent:** \ 'präm-(ə)-nənt\ (adj)

Noticeable, conspicuous; widely and favorably known. For example, Ben Franklin was a prominent statesman.

**proprietor:** \p(r)ə-'pri-ət-ər\ (n)

Someone who owns and operates a business establishment.

**proverb:** \ 'präv-,ərb\ (n)

A short saying or story that expresses some general truth.

**pub:** \pəb\ (n) A bar or tavern.



**ragamuffin:** \ 'rag-ə, məf-ən \ (n)

A dirty, ragged child.

**render:** \ 'ren-dər \ (v)

One meaning of this word is to melt down fat for use in candles and soap. This was a very smelly, unpleasant process.

**royal seal:** (proper n) The Royal Seal of England was and is a stamp used to seal important letters and documents with wax. Only the royal family is allowed to use it.

**salutation:** \ ,sal-yə-'tā-shən \ (n)

The act of greeting, addressing, or welcoming by gestures or words. OR a form of words that serve as a greeting, such as "Dear Sir" in a letter.

**scalawag:** \ 'skal-i-,wag \ (n) A scamp or rascal.

**schematic:** \ ski-'mat-ik \ (n) A diagram or plan for something, such as a scientific experiment, or electrical wiring.

**scoundrel:** \ 'skaun-drəl \ (n) A mean or wicked person; a rascal or a villain.

**shilling:** \ 'shil-ɪŋ \ (n) A British coin. (20 shillings = one British pound)

**sideboard** (n) A piece of dining room furniture for holding china, linens, silver, etc.

**speculate:** \ 'spek-yə-,lāt \ (v) To think about various aspects of a given subject; to meditate or ponder.

**stagnant:** \ 'stag-nənt \ (adj)

Without motion, not flowing or moving; foul from lack of movement. For example, a pond that had no flow of water would become smelly and stagnant.

**stamp act:** (n) A tax the British put into law in 1765. Colonists had to buy stamps for deeds, mortgages, liquor licenses, playing cards, newspapers and almanacs. This tax was extremely unpopular, and the Colonies protested it. They were ignored. Finally, Colonial resistance became so great that the British parliament was forced to repeal the Stamp Act in 1766.

**stile:** \ 'sti(ə)l \ (n) A shortened version of "turnstile"; a device placed in an entrance to restrict human or animal traffic.

**sulfate:** \ 'səl-,fāt \ (n) A salt of sulphuric acid, used in various industrial processes.

**tallow:** \ 'tal-(,)ō \ (n) The nearly colorless and tasteless solid fat extracted from the natural fat of cattle, sheep, etc. Used in making candles, lubricants, soaps, etc.

**toady:** \ 'tōd-ē \ (n) A servile flatterer, a sycophant; especially one who does distasteful or unprincipled things in order to gain favor.

**tofu:** \ 'tō-(,)fū \ (n) Bean curd. This food has the unique quality of taking on the flavor of whatever it's cooked with.

**topiary:** \ 'tō-pē-,er-ē \ (adj) Designating or of the art of trimming and training shrubs into unnatural, ornamental shapes. For example, the animal-shaped hedges at Disneyland are topiary hedges.

**tripe:** \ 'trīp \ (n) Part of the stomach of an ox or similar animal, used as food. OR, (slang) anything useless, worthless, or offensive.

**urchin:** \ 'ər-chən \ (n) A mischievous youngster; usually refers to a child who is dirty or ragged.

**vicar:** \ 'vik-ər \ (n) A parish priest of the Anglican church who is not a rector, and receives a stipend instead of the tithes, OR, an Episcopal minister in charge of one chapel in a parish, as a deputy of another minister.

**vice:** \ 'vīs \ (n) A wicked or bad habit, characteristic, or behavior.

**wafting:** \ 'wäft-ing \ (v) To carry lightly through the air; usually applies to insubstantial things such as odors or smoke.

**Zen:** \ 'zen \ (n) A Buddhist sect developed in India and now widespread in Japan. Zen Buddhists seek enlightenment through introspection and intuition, rather than in Pali scripture. OR, the beliefs and practices of this sect.





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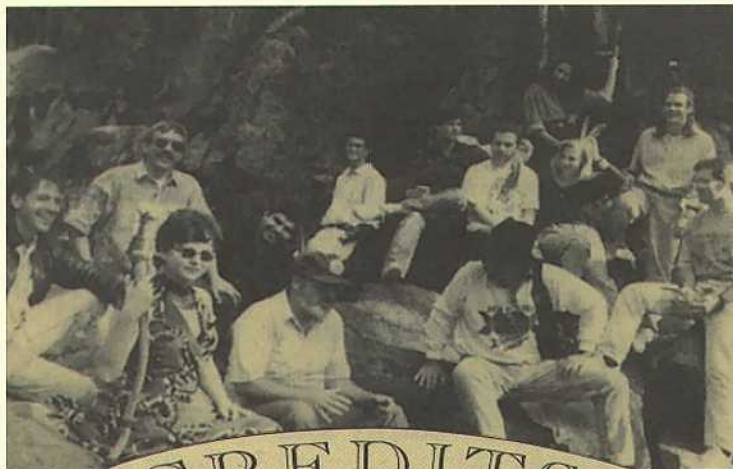
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**Early to Bed  
and early to  
rise, makes a  
Man healthy,  
wealthy and  
wise.**

*(This one's pretty  
obvious, huh?)*

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New York, NY 1974 • *Events  
leading up to the American  
Revolution are  
recounted by the lead  
head of the statue of  
King George III which  
was erected when the  
Stamp Act was  
repealed, but torn  
down again by the  
angry Americans  
when tea was taxed.  
Weird! Fun! Way  
cool!*



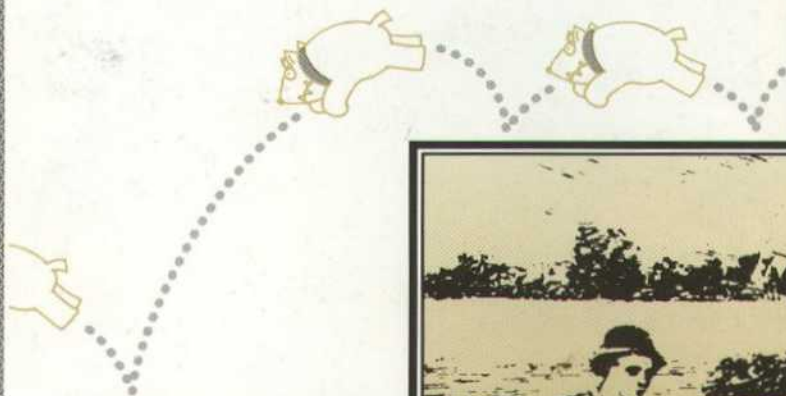


# CREDITS

Producer Mark Seibert  
 Director Tribal Byte  
 Original Concept Bill Davis  
 Designed by Gano Haine,  
 Jane Jensen, Josh Mandel,  
 Lorelei Shannon  
 Text and Dialog Lorelei Shannon  
 Senior Artist Jim Larsen  
 Lead Animator Tony Margioni  
 Senior Programmer Carlos Escobar  
 Artists Terry Falls,  
 Maria Fruehe, Darlou Gams,  
 Al Roughton  
 Programmers Kim Bowdish,  
 Chris Carr, Hugh Diedrichs,  
 Thaddeus Pritchard

Music & Sound Effects  
 Neal Grandstaff, Mark Seibert  
 Quality Assurance Dan Woolard  
 Technical Support Assistance  
 Gary Brown  
 Audio Techs Orpheus Hanley,  
 Mark Seibert, Rick Spurgeon  
 Harmonica Player Eddie Gordon  
 Game Box Art Terry Falls  
 Educational Consultant  
 Mark Ford  
 Historical Consultant  
 Victoria Cornell  
 Documentation Written by  
 Lorelei Shannon  
 Documentation Illustration  
 Jim Larsen  
 Documentation Design  
 Mark Empey





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