

All about the Benjamins

UNDERSTANDING THE VALUE OF THRIFT

benjamins
(ben'-jah-men-z)

n: 1. a slang term for money inspired by Benjamin Franklin's picture on \$100 bills;

2. wise sayings that promote thrift, like those Benjamin Franklin popularized.

Benjamin memorized a daily benjamin so that he'd make wise use of his benjamins.



A penny saved is a penny earned.

In this world, nothing can be said to be certain, except death and taxes.

An investment in knowledge always pays the best interest.

HOW BENJAMIN FRANKLIN INSPIRED GENERATIONS OF THRIFT

Benjamin Franklin was a man ahead of his time. Long before texting, tweeting and instant messaging became popular, Franklin churned out short, memorable messages, promoting thrift as the path to human thriving.

Some of Franklin's maxims (or "benjamins") made their way into "*Poor Richard's Almanac*," the highly popular annual guide that Franklin published from his

Philadelphia print shop. Others appeared in "*The Way to Wealth*," Franklin's advice book, which became an international best-seller.

Franklin's pithy sayings reflected his belief that anyone could get ahead by working hard, saving for the future, spending less than one earns and making wise use of one's time and talents.

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Buy it or build it?

From computers to longboards to wall art for your bedroom, you probably have a mental list of things you'd like to buy. But have you thought about making some of those items, rather than buying?

Of course, it's usually easier to buy something, but there are reasons to think about creating it yourself. Maybe you want a certain look or design you can't find elsewhere. Maybe you want a gaming computer but no one is selling it with certain features. Whatever the reason, you may find that a parent, relative or friend can help you build what you're looking for. Ask around to find out who has the skills and tools to help you.

Although building can take longer, you might get some extra benefits from the process:

- Satisfaction of getting what you want.
- Saving money.
- Building a great memory with the person who helped you.

This year, when you want something, ask yourself if building it is an option. If it is, you might get even more than what you want.

How Americans once celebrated thrift week

Two hundred and ten years after Benjamin Franklin's birth on Jan. 17, 1706, the YMCA hosted quite a celebration in his honor. The "Y" used Franklin's 1916 birthday as a fitting occasion to launch "National Thrift Week."

This annual commemoration promoted thrift "for Success and Happiness," because its organizers hoped to correct the false perception that thrift is all about leading a miser's life of joyless self-denial. "Thrift by definition means thriving, and the miser is the man who does not thrive," wrote Britain's G.K. Chesterton in the early 1900s. "The whole meaning of thrift is making

the most of everything, and the miser does not make anything of anything."

For the next 50 years, National Thrift Week remained a fixture on the January calendar. National Thrift Week reached the zenith of its popularity in the mid-1920s when Calvin Coolidge was presi-

dent. In many ways, "Silent Cal" personified modesty and "frugal flourishing." His public agenda — paying down the national debt and cutting government waste — certainly incorporated thrift themes. During World War II, thrift campaigns encouraged Americans on the home front to work, save and give like never before. However, after the war, thrift began a slow but steady decline in the popular imagination. Thrift Week completely fizzled out in the mid-1960s, and over the next several decades Americans increasingly embraced ideas such as "instant gratification," "buy now, pay later" and "the one who dies with the most toys, wins."

In the early 2000s, a group of prominent scholars issued a report which raised concern about skyrocketing levels of personal and public debt. This report, *For a New Thrift: Confronting the Debt Culture*, called for Americans to once again "spend prudently, save abundantly, invest wisely and give generously."

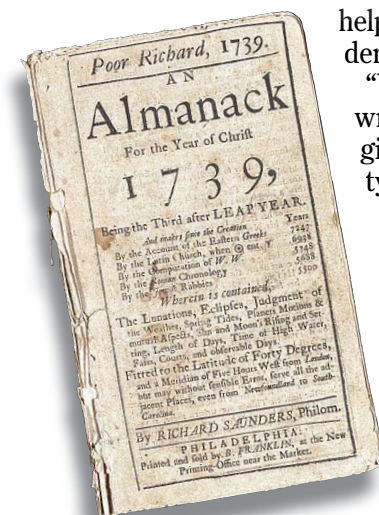
In the wake of this report, Benjamin Franklin's Philadelphia hosted a 2011 Thrift Week celebration, its first in nearly 50 years. Thrift Week commemorations are now spreading to other parts of the country. These celebrations are helping Americans rediscover thrift and its three traits: industry (working hard), frugality (eliminating waste and saving for the future) and stewardship (sharing generously with others).

DIG DEEPER

• Look at the advertisements in your local newspaper. Choose five ads for different items. Evaluate the messages in these ads. Create a visual presentation for the ads and include a caption for each ad that assesses whether the ad encourages thrift (the wise use of one's resources) in any way.



BENJAMIN CONTINUED



Yet, Franklin never saw practicing thrift and accumulating wealth as ends in themselves. Rather, he saw them as ways of helping people avoid economic dependency and chronic debt.

"When you run into debt," Franklin wrote in *The Way to Wealth*, "you give another power over your liberty."

Franklin's ideas about economic freedom and upward mobility proved to be very important to shaping America's national character. In *Franklin's Thrift*, Barbara Dafoe Whitehead observes, "If Jefferson wrote the Declaration of Independence and Madison crafted the Constitution, then Benjamin Franklin, it might truly be

said, invented the American Dream."

Franklin used much of the wealth he earned to help others start businesses and become economically self-sufficient. In fact, at his death, Franklin left an endowment to provide start-up loans for young married tradesmen considered worthy of such investment. His stipulation that these tradesmen be married reflected the fact that Franklin attributed much of his own business success to his wife Deborah's frugality and good judgment.

Today, Franklin's memorable maxims remain popular with many readers and are well suited to our text-messaging age. Their value lies in the wisdom they contain about a big idea that is important to every age: Thrift!

Talk it Over

• Do you think people today value economic independence (being able to support yourself) as much as Benjamin Franklin did? Why or why not? Is thrift more about self-denial or self-reliance? Do you think people today think much about thrift? Talk much about thrift? What would you say is the opposite of thrift? The purpose of thrift?

• Why do you suppose ideas such as "buy now, pay later" became so popular in the late 20th Century? What problems are commonly associated with this practice?

• What does it mean to spend prudently? Can you think of examples from your own life where you've spent prudently or where you've failed to do so? What lessons can you draw from these experiences?

How a Kansas boy inspired the spread of 'piggy banks'

When the head of a leprosy relief program stopped in a small Midwestern town in 1913, he probably never imagined the effect his visit would have on a 10-year-old boy named Wilbur Chapman — or the effect that Wilbur's response would have on the wider world.

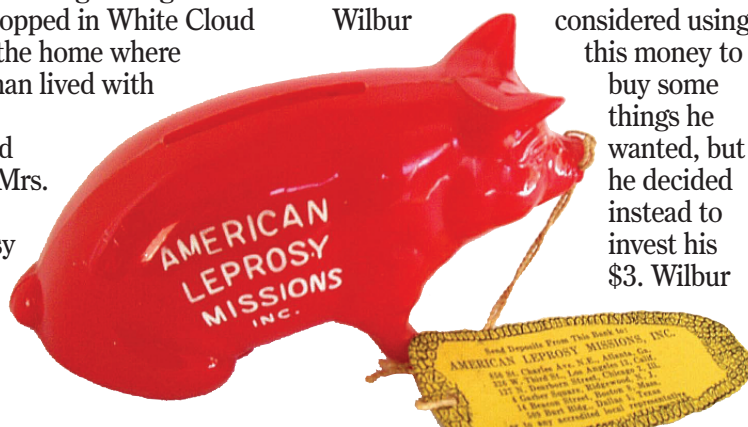
William Danner of the American Leprosy Mission often traveled the country raising money to aid victims of leprosy. On a swing through Kansas, Danner stopped in White Cloud and stayed in the home where Wilbur Chapman lived with his parents.

So committed were Mr. and Mrs. Chapman to fighting leprosy that they had pledged to help Danner raise \$250 — enough for

10 victims to receive a year's worth of care. By the time Danner was ready to leave for his next stop, the people of White Cloud had contributed enough for nine leprosy patients (\$225).

Danner appreciated this outpouring of generosity, as well as the hospitality shown him by the Chapmans and their son, Wilbur. To show his thanks, Danner gave Wilbur three shiny silver dollars at the train station on his way out of town.

Wilbur considered using this money to buy some things he wanted, but he decided instead to invest his \$3. Wilbur



bought a piglet he named Pete. Over the next year, Wilbur cared for his pig, fattening him up so that Pete could be sold at market. When Pete reached maturity, Wilbur sold his pig for \$25 and mailed the entire proceeds to the American Leprosy Mission.

The day Wilbur's gift arrived, Mr. Danner happened to be meeting with some New York City editors. They were so moved by Wilbur's actions that soon the story of "Pete the Pig" began circulating around the country. A campaign arose to have Americans put their loose coins in "Pete the Pig" banks to help raise money for leprosy victims. More than \$1 million in contributions eventually poured into the mission.

Thus, thanks to the hard work, careful investment and generosity of a 10-year-old boy, many Americans were inspired to "feed the pig" and care for others. Piggy banks became a common fixture in American life.

Talk it Over

- Franklin believed that "well done is better than well said." What do you think he meant by that? What are some thrift habits you can adopt to help you earn all you can? To help you save all you can? To help you give all you can?

- How do you think Wilbur felt when he mailed his hard-earned \$25 to Mr. Danner? Do you think people like Wilbur actually find it fun to save up and give to others? Do you have a piggy bank? A savings account? For what are you saving? Is it necessary to have a specific purpose in order to save? Is it helpful?

Why Franklin's 'benjamins' are especially needed today

When Benjamin Franklin was churning out all those pithy proverbs in the 18th Century, his fellow Americans had many good reasons to pay attention. Franklin had a way with

words. His playful spirit and keen wit were endearing. His wise sayings managed to be simple, yet profound. Still, many 18th Century Americans gobbled up Franklin's "benjamins" for a

reason that may surprise some today: because they were in a heap of trouble.

That's right. America, in Benjamin Franklin's day, faced many of the same economic problems that now confront our nation. As Barbara Dafoe Whitehead has noted, for much of Franklin's early life, America was "a nation drowning in debt, a society living on credit, and a people burdened by bankruptcies, over-indebtedness and real estate deals gone bust."

Thankfully, many 18th-Century Americans embraced Franklin's sage advice. They broke reckless spending habits (or avoided them in the first place) and helped put themselves and our country on a much better economic path.

Today the challenges facing our nation are similar. We simply cannot sustain the reckless economic patterns of the last half-century. At some point, debts have to be paid.

Changes have to be made. Families and individuals cannot consume more

than they produce year after year, and governments cannot spend more than they take in year after year after year.

Young people today face a unique burden and a unique opportunity. While they are coming of age at a time when America's economic health is suffering due to past mistakes, today's youth have the opportunity to chart a different course for themselves, establishing thrifty habits that draw upon the time-honored wisdom of men like Benjamin Franklin.

In his day, Franklin believed that Americans should save more and spend less and that they should work hard and sacrifice short-term pleasure for long-term growth.

While this advice is sound in any age, since we now find ourselves facing many of the same problems that Americans faced in the 18th Century, we should be doubly certain to follow Franklin's thrift prescriptions.

IN THE NEWS

• Look in your local newspaper for a job that you would be qualified to fill once you graduate from high school. Calculate how much you would earn doing this job each month, and what you would have to pay in taxes. Next, create a hypothetical budget based on your net (after-tax) earnings. Be sure to include the cost of housing, transportation, food and other expenses.

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Why thrift matters

- Thrift helps people achieve financial peace of mind.
- Having a financial plan is linked to overall happiness and greater self-esteem.
- Thrift teaches habits associated with higher academic achievement and later success in life.
- Thrift provides a route to greater self-sufficiency in uncertain times.
- Thrift encourages an ethic of hard work, which contributes to economic growth and productivity.
- Thrift reduces waste and inspires creative reuse.
- Thrift inspires neighborly cooperation and social trust.
- Thrift cultivates generosity.
- Savings spur economic growth.

Beware of little expenses; a small leak will sink a great ship. – Benjamin Franklin

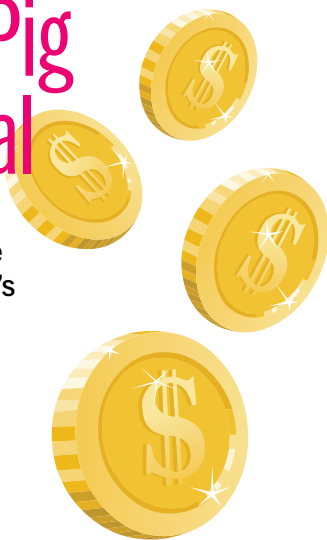


Feed the Pig family goal

Get your family to work together to save for a financial goal. It's really easy and the reward is great! Just follow these simple steps:

Dear parents/caregivers:

Your child has been learning about the importance of saving and responsible financial decision making. With the Feed the Pig Family Goal activity, you can support your children in developing sound spending and saving habits that will not only benefit them now—but especially in the future.



1. Pick a short-term goal everyone wants. It could be a family outing to enjoy ice cream sundaes, a night out at the movies, a new item for your home, a financial gift to a favorite charity, or something else you choose together.
2. Map out your plan to save the money, including how much you need for the goal and how much you need to save each week to reach the goal.
3. To make a piggy bank, glue the "Feed the Pig" cut-out so that it wraps around a can or jar.
4. Ready to get started? **Let's Feed the Pig!**

Family financial goal

Amount needed	Amount to save each week
\$ <input style="width: 80%;" type="text"/>	\$ <input style="width: 80%;" type="text"/>

How much saved?

Week 1 \$ <input style="width: 80%;" type="text"/>	Week 2 \$ <input style="width: 80%;" type="text"/>	Week 3 \$ <input style="width: 80%;" type="text"/>
Week 4 \$ <input style="width: 80%;" type="text"/>	Week 5 \$ <input style="width: 80%;" type="text"/>	Week 6 \$ <input style="width: 80%;" type="text"/>

Grand total \$

DIG DEEPER
Find an article in the newspaper about someone who is trying to help solve a social problem. As you read, seek to determine whether this individual's plan depends mostly on personal generosity, on other people's generosity, or on "compelled sharing" by taxpayers.

For more information about financial literacy, visit www.FeedthePig.org.

For more family fun, play The Great Piglet Challenge at www.FeedthePig.org/tweens.

What would you do with \$100? What would you do with \$1,000?

ASK YOURSELF

- What is responsible financial decision making?
- Why is saving important?
- How does saving help people reach their goals?
- What is interest and how does it help money grow over time?

Pretend you have been given \$100. What would you do with the money? Spend it? Save it? Or share? How would your answers change if you were given \$1,000? What would you buy? Would you have enough money or would you need to save more for a future purchase? Think about these questions and then write down what you would do.

\$100			\$1,000		
SPEND	SAVE	SHARE	SPEND	SAVE	SHARE

Read Today
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Deseret News

New Year's history

Julius Caesar decided the Roman calendar needed to be changed. They tried having the calendar follow the lunar cycle, but it frequently fell out of phase with the seasons. In redesigning the calendar again, Caesar enlisted Sosigene, an Alexandrian Astronomer. He advised him to follow the solar year instead. They decided to begin the year on January 1st instead of in March. He also decreed that every four years a day be added to February to keep the calendar from getting off track. Shortly before Julius Caesar's assassination in 44 B.C., he changed the name of the month Quintilis to Julius (July) after himself. It was later found that they failed to calculate correctly, and there was an 11 minute-a-year error. In 1582 the Gregorian calendar was implemented. Since then, people around the world gather on January 1st to celebrate the precise arrival of the New Year.

DESERET NEWS

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55 N. 300 West
Salt Lake City, UT 84101
801-237-2172
NIE director: Cindy Richards
Art director: Heather Tuttle



Practicing **honesty**

IN SEARCH OF THE HONEST TRUTH

Since the beginning of time, people have searched for the “honest truth.” For thousands of years, great thinkers called philosophers have discussed and debated the truth. Scientists and researchers have conducted millions of experiments to find out the truth. Police officers and detectives work 24 hours a day to locate clues to “uncover” the truth.

Why so much fuss about the truth? Because the truth is very important to everyone. Telling the truth is very important, too. And telling the truth is a big part of what makes us good human beings. If we are honest with each other we become responsible, dependable and trustworthy. We show the world that we respect ourselves and respect others. As you can see, practicing honesty goes a long, long way!

What’s the best way to practice honesty? One way is to never tell lies, never cheat and never steal. But sometimes it’s hard not to tell a small lie, cheat a little bit, or steal a little something. But you know what? Those are the easy ways out. Cowards lie, cheat and steal. Being honest takes courage and integrity! Are you ready to be an honesty hero? Good for you!

Another way to practice honesty is to stay true to yourself. Do you know what that means? It means that no matter what somebody tells you to do, you do what you know is right. So, believe in yourself and never stop practicing honesty and seeking the truth!

VOCABULARY:

Discuss: to talk about something.

Debate: to talk about different points of view.

Researcher: someone who studies a subject in depth.

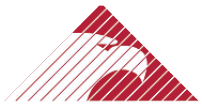
Experiment: a test to examine something.

Integrity: The quality of having strong values.

ACTIVITY:

Think about the last time you almost told a lie, but decided against telling it. What made you change your mind? How did you feel when you told the truth? How do you think you would have felt if you had lied?





MOUNTAIN AMERICA
CREDIT UNION



5 tips for the new year

In January, it's common to think about changes you want to make in the new year. You may have talked with your family about things you want to get better at, whether it's a sport, skill or creative outlet. Learning new things can be hard, but they can be rewarding.

Here are some tips to help you be successful:

- 1.** Remember that change doesn't happen overnight. Give yourself lots of time to practice.
- 2.** Avoid trying to change too much at once. Focus on one or two things to be effective.
- 3.** Tell someone what you want to change. They could provide advice and encouragement and help you stay on track.
- 4.** Recognize the good things you already doing and then list the things you want to improve.
- 5.** Stay positive! Change can be hard, but you can do it! Think about where you want to improve in your life this year. Whether it's in basketball, gymnastics, music or art, focus on simple changes to reach your goal.

LIFE LESSONS



THE HONESTY BOX

When Justin was a small boy, he spent most afternoons with his grandmother, Rosie. Rosie was a wise old woman. She believed that honesty was the most important quality in a human being. She said it didn't matter how much money you have, or how big a house you live in, as long as you're honest. She said she had had the good fortune of knowing a few honest people in her life, people who would never think of telling a lie. These were people who Rosie said she could trust with all her heart.

Rosie often told Justin that she believed he was an honest person. She hoped he would grow up to be responsible and trustworthy. On Justin's 12th birthday, Rosie gave him a special present. It was a small wooden box. When Justin tried to open it, he found it was locked. "What is this?" Justin asked.

"It's an honesty box," replied Rosie. "How do I open it?" asked Justin.

Then Rosie placed a silver chain with a tiny key around Justin's neck. She said, "Promise me you'll open this on only one occasion: if you're ever tempted to tell a lie. Then open it and tell your lie to the box." Justin made the promise and put the small box in his front pocket.

Justin thought about the honesty box many times over the next few years, but he never had any reason to open it. He never became wealthy, but he lived a good, honest life. One

day, Justin met a beautiful young woman. During the time they spent together the young woman asked Justin where he lived, and how he made his living. Justin grew silent. He feared that this woman would leave him if she knew how small his house was, and how little wealth he had in the world. For a moment, he thought he would lie, and make up a story about his grand house in the country and his enormous riches. Then he remembered the honesty box. "Will you excuse me for a moment?" he asked the young lady. Justin stepped behind a tree and pulled out the box. He slipped the silver chain off his neck and placed the tiny key in the lock. He opened the box and, to his surprise, found only a tiny mirror inside. He looked into the mirror and saw his reflection. Then he told the mirror his lie. Justin hated what he saw in the mirror. It was not the face of the honest and good man he had known his whole life. He closed the box and returned to the young lady.

"I am a simple man," he said, "I live in a small cottage and I have very little money."

The young lady smiled. "None of those things matter to me," she said, "because I think you're a prince!"

And the following week the two were married and lived happily, and honestly, ever after.

— By Ned Andrew Solomon



WORD SEARCH



- CHEAT
- DEPENDABLE
- DISHONEST
- HONESTY
- INTEGRITY
- LIE
- REGARD
- REPUTATION
- RESPONSIBLE
- RIGHT
- STEAL
- TRUSTWORTHY
- TRUTH

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

Tips

1. Honesty is a trait that covers a wide range of positive behaviors, including respecting yourself, respecting others, acting responsibly and dependably, and making the right choices. If you encourage honesty in your child, you are promoting wonderful characteristics that will come in handy in all of your child’s social interactions.

2. Another aspect of honesty is being true to yourself. You’ve probably worked hard to instill in your child positive values and a strong moral belief system. As your child gets older, he/she will become more susceptible to the influences of peer pressure. Find ways to remind your children to be true to themselves, to guide them toward the right choices.

3. Be aware of how you model honesty and integrity at home. Do you ever make “little white lies” to your friends or to your children to ease out of difficult situations? Little white lies are dishonest, no matter how you rationalize them, and they send the wrong message to your impressionable kids.

4. How much do you value honesty? Consider how you would react if your child did something wrong but admitted to it. The balance you create between the reprimand for the action, and the praise for the honesty, might ensure the future lines of communication staying open.

A “TRUE” FRIEND!

Directions: Think of one of your friends who is especially honest, trustworthy and dependable. In the space below draw a picture of him or her, and then write a short paragraph about what makes that person a true friend.

FAMILY ACTIVITY

Here's an entertaining way to approach important issues, such as honesty, responsibility and making the right choices. As a family, play a game of "What Would You Do If..." Try to think of some situations that might lead to good discussions, and put them down on index cards. An example might be, "What would you do if you saw someone cheating on a test?" or "What would you do if you found somebody's wallet?" Let each family member pick a card from the pile, and take turns giving answers. You may be surprised at how your children would react in these situations, and they may learn some positive problem-solving techniques from you.

NEWSPAPER ACTIVITY



Directions: Look through the advertisements in a newspaper. Advertisements are what companies use to convince you to buy their products or services by getting you to believe in what they are selling. Try to make up a product or service that you could sell, and, with the help of an adult, write your own ad. Remember, it's important to be truthful and honest about what your service or product can do!

HONEST PERSON = GREAT INDIVIDUAL!

Directions: Being honest helps to make you an all-around great individual. Write a few words about how honesty relates to the following:

Being trustworthy _____

Being dependable _____

Being responsible _____

Doing the right thing _____

Helping others _____

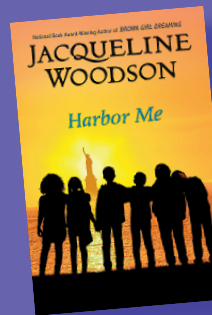
Respecting others _____

Respecting yourself _____

CHECK IT OUT



Time to crack open a good book! Check out these award worthy picks from the staff of the Salt Lake City Public Library.



"Harbor Me," by Jacqueline Woodson. Jacqueline Woodson's first middle-grade novel since National Book Award winner *Brown Girl Dreaming* celebrates the healing that can occur when a group of students share their stories.

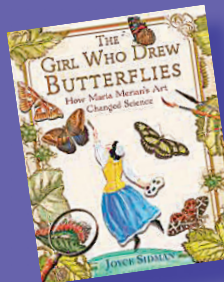
"The Assassination of Brangwain Spurge," by M.T. Anderson. Subverting convention, award-winning creators M. T. Anderson and Eugene Yelchin pair up for an anarchic, outlandish, and deeply political saga of warring elf and goblin kingdoms.



"The Faithful Spy: Dietrich Bonhoeffer and the Plot to Kill Hitler," by John Hendrix. In his signature style of interwoven handwritten text and art, John Hendrix tells the true story of Dietrich Bonhoeffer, a pastor who makes the ultimate sacrifice in order to free

the German people from oppression during World War II.

"The Adventures of a Girl Called Bicycle," by Christina Uss. A determined 12-year-old girl bikes across the country in this quirky and charming debut middle grade novel.



"The Girl Who Drew Butterflies: How Maria Merian's Art Changed Science," by Joyce Sidman. Joyce Sidman paints her own picture of one of the first female entomologists and a woman who flouted convention in the pursuit of knowledge and her passion for insects.

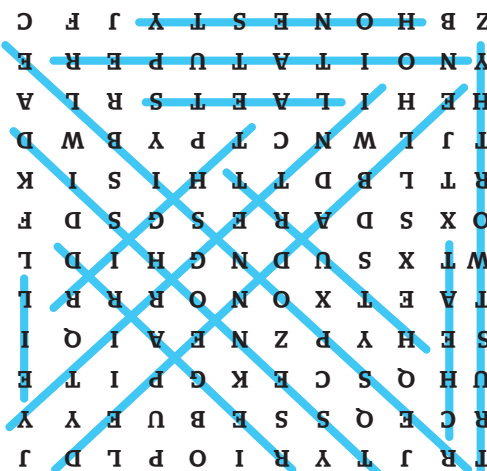


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NIE Deseret News
55 N. 300 West
Salt Lake City, UT 84101
801-237-2172
NIE director:
Cindy Richards
Art director:
Heather Tuttle



The wonderful world of **Electricity**

Before electricity became available more than 100 years ago, houses were lit with candles and lamps, food was cooled in iceboxes and rooms were warmed by wood-burning or coal-burning stoves.

Despite its great importance in daily life, few people probably stop to think what life would be like without electricity. Like air and water, people tend to take electricity for granted. But people use electricity to do many jobs every day – from lighting, heating and cooling homes to powering televisions and computers.





Making money in 2019

If making more money is on your list of things to do in 2019, now is the time to make a plan. Whether you try baby-sitting, snow shoveling, yard work or summer jobs later in the year, there are many opportunities.

What do you like to do? To make a plan, start by thinking about what you like to do. If you choose something you enjoy, you'll want to do more of it. This will lead to making more money. Think about what you enjoy and how it might turn into a paying job.

What are your skills? Make a list of your skills. Skills that come naturally to you are a good place to start. Do you enjoy spending time with young children, cleaning the house, taking care of pets or working in the yard? Offer these services to neighbors, friends and family!

What is your plan? Make your money work for you in 2019 by deciding how to save or spend your money before you get it. Whether you are saving up for a new toy or activity or hoping to buy something for a friend or family member, making a plan for your money is a great financial habit to develop now.

What is electricity?

Electricity has existed as lightning in the skies since the beginning of the universe, even before there was life on earth. Early cave people probably recognized the force of electricity when lightning struck.

But we know now that electricity is a form of energy produced by the movement of electrons. There are two kinds of electricity: **static electricity** and **current electricity**.

Have you ever walked across the room to pet your dog, but got a shock instead?

That's because of static electricity. It stays in one place and doesn't move like current electricity. Lightning is the most spectacular example of static electricity. This is a huge spark that flows between positive charges in the top of a thunder cloud and negative charges in the bottom.

Current electricity is the



SHUTTERSTOCK

flow of electric charge through a substance that conducts electricity such as copper wire. A battery connected to a lightbulb is a good example of a circuit that uses current electricity.

Alternating current, also known as AC, is the kind of electricity that comes into most homes from

power stations.

But it's important to be cautious and not underestimate the power of electricity. To play it safe around your home, just remember the rules for using electricity the right way:

- Don't put fingers or objects into an electrical outlet, toaster or any other

appliance, even if it's off.

- Don't use appliances – and appliance cords – near bathtubs and sinks.
- Don't climb trees near power lines.

- Don't ever try to remove anything from a power line. If you see something stuck in a power line, notify an adult!

– Oracle Education Foundation

Where does it come from?

A generator can be broadly defined as a device that converts one form of energy into electricity. Nearly all of the electricity we use is produced by generators that convert one kind of the Earth's energy into electrical energy. Generators operate because of the relationship between magnetism and electricity. In 1831, scientist Michael Faraday discovered that when a magnet is moved inside a coil of wire, an electric current flows in the wire.

An electric power plant uses a turbine or other similar machine to drive these types of generators. There are steam turbines, gas combustion turbines, water turbines and wind turbines.

Steam turbines using biomass, coal, geothermal energy, natural gas, nuclear energy, and solar thermal energy produce about 70% of the electricity used in the United States. These power plants are about 35% efficient. That means that for every 100 units of primary heat energy that go into a power plant, only 35 units are converted to useable electrical energy.

Other types of devices that generate or produce electricity include electrochemical batteries, fuel cells, solar photovoltaic cells and thermoelectric generators.

– U.S. Energy Information Administration



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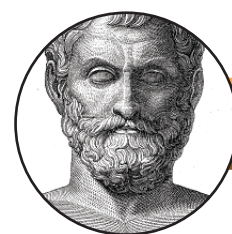


SAVING ELECTRICITY

There are a lot of easy things you can do around the house and at school to conserve electricity:

- 1 Don't leave lights on when no one is in the room. If you are going to be out of the room for more than 5 minutes, turn off the light. If you know of a light that everyone forgets to turn off, make a sticker or a sign to hang next to the switch that says "Lights Out" or "Don't Forget."
- 2 Open and close the refrigerator door quickly when choosing a snack.
- 3 Close doors when going outside or coming inside when the heat or air conditioning is on.
- 4 Keep the oven door closed and pans covered while food is cooking.
- 5 Walk or bicycle instead of asking for rides in the car.

A Shocking History: The main discoveries in electricity



600BC

Thales, a Greek, found that when amber was rubbed with silk it attracted feathers and other light objects. He had discovered static electricity. The Greek word for amber is 'electron', from which we get electricity and electronics.



1600

William Gilbert, scientist and physician to Queen Elizabeth I, invented the term electricity. He was the first person to describe the earth's magnetic field and to realize that there is a relationship between magnetism and electricity.



1752

Benjamin Franklin, famous U.S. politician, flew a kite with a metal tip into a thunderstorm to prove that lightning is a form of electricity. He was very lucky he wasn't killed. Don't try this at home!



1800

Alessandro Volta created the first simple battery. He used pure silver and zinc discs, sandwiched between muslin damped in a salt solution, developed from Galvani's earlier experiments with a frog's leg.



1820

Hans Christian Oersted of Denmark found that when electricity flows through a wire, it produces a magnetic field that affects the needle of a nearby compass.



1826

André Ampère published his theories about electricity and magnetism. He was the first person to explain the electro-dynamic theory. The unit of electric current was named after Ampère.



1870s

Thomas Edison built a DC (direct current) electric generator in America. He later provided all of New York's electricity.



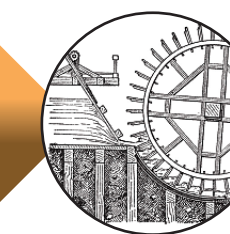
1876

Alexander Graham Bell, inventor of the telephone, used electricity to transmit speech for the first time.



1880s

Nikola Tesla developed an AC (alternating current) motor and a system of AC power generation. After Tesla's system was used to power 100,000 electric lights at Chicago's World Fair in 1893, AC became the established power supply in the USA.



1881

The first public electricity supply was generated in Godalming, Surrey, using a waterwheel at a nearby mill.

The fight against climate change

You've probably heard the term "Global Warming," but what exactly is it?

It's not as complicated as you might think.

More than 100 years ago, people around the world started burning large amounts of coal, oil and natural gas to provide electricity to their homes and energy to factories and vehicles. Today, most of the world relies on these fossil fuels for their energy needs. Burning fossil fuels releases carbon dioxide, a heat-trapping gas, into the Earth's atmosphere, which is the main reason why the Earth's climate is changing.

Heat-trapping gases are also called greenhouse gases. They exist naturally in the atmosphere, where they help keep the Earth warm enough for plants and animals to live. But people are adding extra greenhouse gases to the atmosphere. These extra gases are causing the Earth to get warmer, setting off all sorts of other changes around the world — on land, in the oceans and in the atmosphere. And these changes affect people, plants and animals in many ways.

Many people and governments are already working hard to cut greenhouse gases, and everyone (including you) can help. Here are some ways to curb greenhouse gases.

Switch to clean energy

When we get electricity from renewable energy sources like wind and solar power, we avoid the carbon dioxide emissions that would have come from burning fossil fuels like coal, oil or natural gas.

You can replace the incandescent lamps in your home (ones



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Wind turbines use blades to collect the wind's energy, which can be converted into electricity without using up the Earth's fossil fuels.

that make light by getting hot) and use energy-saving fluorescent lamps instead, greatly reducing the amount of electricity used.

Use less energy

Most of the energy you use at home and at school comes from burning fossil fuels. Using less energy means burning fewer fossil fuels and putting less carbon dioxide into the atmosphere.

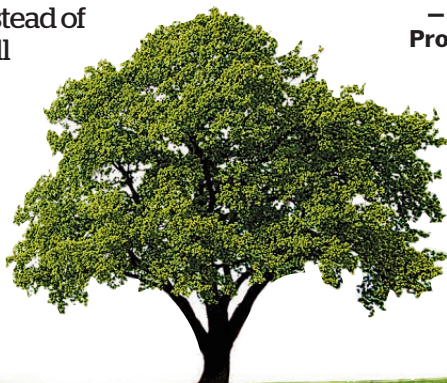
Give the car a break

Encourage your family to make one big trip to run all their errands at once, instead of making lots of small trips. Consider sharing rides with others, and use public transportation like buses or trains whenever you can.

In addition to reducing the gases we emit to the atmosphere, we can also increase the amount of gases we take out of the atmosphere. Plants and trees absorb carbon dioxide as they grow. Increasing forestlands and making changes to the way we farm could increase the amount of carbon we're storing.

As the number of people on Earth continues to increase, it's important for us to keep these ideas in mind. Be conscious of how much energy you use on a daily basis, and steps you can take to conserve energy.

— Environmental Protection Agency



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Deseret News

New Year's fun facts

1. The song traditionally sung on New Year's, "Auld Lang Syne," means "times gone by".
2. In Italy, people wear red underwear on New Year's Day to bring good luck all year long. The tradition dates back to medieval times.
3. Time Square New Year's Eve Ball was first dropped in 1907 after there was a fireworks ban. The original ball weighed 700 pounds and featured 100 25-watt bulbs—much different to the ball we know today!
4. The earliest known New Year celebrations were in Mesopotamia and date back to 2000 B.C.
5. January is named after Janus, the god with two faces, one looking forward and one looking backward. He is the god of beginnings, transitions, gates, doors, passages, and endings.
6. Ancient Persians gave New Year's gifts of eggs, which symbolized productiveness.
7. The first recorded New Year's celebration dates back 4,000 years to Babylon, when the first moon after the spring equinox marked a new year. In 46 B.C., Julius Caesar created a calendar with Jan. 1 as the first day of the year, partly to honor Janus, the month's namesake.
8. The tradition to kiss at midnight isn't a recent invention. According to old English and German folklore, the first person you come across in the New Year could set the tone for the next 12 months.
9. To ensure a year of good luck, firecrackers and noisemakers became tradition in order to scare away any remaining evil spirits and to ensure a brand new start.
10. 2,000 pounds (907kg) of confetti are dropped on the crowd in Times Square at midnight.



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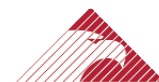
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