Changing seasons

We all know that the Earth goes around the sun during one year. But can you explain why it gets cooler when summer turns into fall? The seasons change as the amount of sunlight changes. The Earth doesn’t face the sun exactly the same way as it travels its path through space. The Earth tilts slightly so that the sun shines more directly on one part of the planet than the other.

Trees

A RENEWABLE RESOURCE

Trees give us beautiful fall colors. How many other things can you name that come from trees?

Match the tree to a leaf in column A and its seed in column B

<table>
<thead>
<tr>
<th>TREE</th>
<th>LEAF</th>
<th>SEED</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPLE</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>MAPLE</td>
<td>E</td>
<td>H</td>
</tr>
<tr>
<td>OAK</td>
<td>G</td>
<td>D</td>
</tr>
<tr>
<td>PINE</td>
<td>C</td>
<td>F</td>
</tr>
</tbody>
</table>

ANSWERS ON PAGE 4

Illustration by Christie Jackson
Avoid spending regret

Have you ever regretted buying something? Spending money on things that don't matter is like losing money. Here are some good questions to ask before you open your wallet.

Do I need it?
Before you spend, ask yourself if you need it. If you don’t, either walk away or ask yourself the next question.

How badly do I want it?
We sometimes buy things out of desire, not necessity. Just because we want it doesn’t mean it’s the best decision, though. Think about the item and consider how long it will last, how much you will be able to enjoy it and if there is a better way to spend your money.

Can I make do with something else?
There will always be a deal somewhere. While you wait, ask yourself if you can make do with what you have now. If you do this, you may find that what you have is enough. If it’s not, you can look for a good deal on something you like without overspending.

Ask yourself these questions to become more confident in how you spend and manage your money.

Word list

Equator: the imaginary line that goes exactly around the middle of the Earth; the hottest part of the Earth.

Hemispheres: The two halves of the Earth; we live in the Northern Hemisphere, and people in Australia live in the Southern Hemisphere.

Orbit: The path that an object takes around another; the Earth follows an orbit around the sun, and the moon orbits around the Earth.

Tropics: the areas of the Earth near the equator that have a very warm climate.

SEASONS FROM 1

As the Earth travels in its big circle, the angle of the rays of the sun slowly change. Right now it is fall in North America, but in South America it is spring. Then, as our winter changes into spring, it will be turning into fall in the southern half of the Earth.

In our part of the world it gets colder the farther north we travel. Another good question is why it is always cold and icy at the North and South poles. They stay colder because they are never tilted directly toward the sun. The hottest part of the Earth is the equator. You might think of it as the belt around the middle of the Earth. The equator is most often facing directly toward the Earth.

In the tropical countries closer to the equator, the seasons do not change in the same way. In the tropics the temperature does not change much during the year. Some lands have just two seasons, one that is very rainy and one that is dry. In other places people divide the year into hot, rainy and cool seasons.

Another change that we always notice is the length of our days and nights. Summer days stay light longer and nighttime is shorter. In winter the days are shorter and the nights are longer. The short winter days mean the sun does not have as much time to warm us up. Then in the summer, the longer days give the sun more time to heat up the Earth.

SEASONS FROM 1

December: Summer south of the equator, winter north of the equator. The Sun shines directly on the Southern Hemisphere and indirectly on the Northern Hemisphere.

March: Fall south of the equator, spring north of the equator. The Sun shines equally on the Southern and Northern Hemispheres.

June: Winter south of the equator, summer north of the equator. The Sun shines directly on the Northern Hemisphere and indirectly on the Southern Hemisphere.

September: Spring south of the equator, fall north of the equator. The Sun shines equally on the Southern and Northern Hemispheres.
Weather’s effects on history

Weather affects many of the events in your life, so it’s not surprising that it affects world affairs, too. Many of the events in history might have been different had the weather been different.

For instance, many people think a violent storm, perhaps a hurricane, caused the Mayflower to land in New England instead of Virginia, its destination. Some historians blame bad weather for Napoleon’s defeat at Waterloo and the defeat of the Spanish Armada by England.

Weather sense has been an important advantage throughout history. It was superior knowledge of the winds that allowed Christopher Columbus to sail to the New World and back. George Washington used his weather knowledge to plan artillery movements during the Revolutionary War.

In World War II, both the Germans and the Allies took advantage of favorable weather. The Allies made use of calm weather on the day of the Normandy invasion. Likewise, the Germans knew a week of stormy weather in December 1944 would keep Allied planes on the ground, giving them a chance to attack. Bad weather hampered the Allies more than once that year. If it hadn’t, the war might have ended sooner than it did.
A moisture meter

Measuring the amount of moisture, or humidity, in the air can tell you if precipitation is likely. Hygrometers measure relative humidity, the amount of moisture in the air compared with the maximum amount it can hold. Here's how to make your own hygrometer.

**You'll need**
- Wood or Styrofoam block
- Piece of thin plastic the size of a credit card
- Two small nails
- Three 8-inch human hairs
- Small coin
- Hammer
- Glue
- Strong scissors
- Tape
- Pen

**What happened?**

In dry air, the hairs get shorter and pull the pointer upward

In a “humid” place with damp air, the hairs stretch, and the pointer goes down

Scientists measure the humidity with accurate hygrometers to help them predict the weather

1. Cut plastic into a triangle; tape coin to its point
   - Nail it to the board; make sure it turns easily on the nail
   - Tie hairs to upper nail, then tie them to pointer and glue them to it

2. Stand board up and mark at tip of pointer
   - Take it to each of these places for a few hours and check the pointer
   - Outdoors on a clear day
   - Outdoors when it’s raining
   - In bathroom after someone has taken a shower or bath
   - In room with a fireplace, heater or air conditioner

**English/Spanish**

Find both the English and Spanish words in the puzzle below. Answers on page 3

**SUMMER — VERANO**
**AUTUMN — OTOÑO**
**WINTER — INVIerno**
**SPRING — PRIMAVERA**

**EQUATOR — ECUADOR**
**HEMISPHERES — HEMISFERO**
**ORBIT — ORBITA**

**TROPICS — TROPICO**

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

**Fairytail Festival at CenterPoint Legacy Theatre**

Read Today had a magical time at the Fairytail Festival at CenterPoint Legacy Theatre. This year’s festival was bigger than ever! There was even a storytelling train that traveled to different realms where you met characters and heard their stories. Another new addition to the festival was Bibbity Bobbity Books where families donated books.

Read Today gave everyone that donated a little gift for their generosity. We also had a candy station that was so awesome it would make Willy Wonka proud. More kids and families attended the festival this year than ever before. A lot of kids came dressed as their favorite characters. There were pirate games, tea parties with princesses, crafts, a wizardry school, a balloon artist & the most heavenly cotton candy. All our favorite princesses were there and even Batman! If you didn't make it to join us this year we hope to see you at the Festival next year.
Once upon a midnight dreary, while
I pondered, weak and weary,
Over many a quaint and curious
volume of forgotten lore —
While I nodded, nearly napping,
suddenly there came a tapping,
As of some one gently rapping,
rapping at my chamber door.
"'Tis some visitor," I muttered,
"tapping at my chamber door —
Only this and nothing more."

“The Raven”
EXCERPT BY EDGAR ALLAN POE

OCTOBER 2018
TRIVIA AND FOLKLORE

The ravens of the Tower of London are a group of captive common ravens that live in the London landmark. The group of ravens at the Tower comprises at least seven individuals (six required, with a seventh in reserve). The presence of the ravens is traditionally believed to protect the Crown and the tower; a superstition holds that “If the Tower of London ravens are lost or fly away, the Crown will fall and Britain with it.”

According to folklore, wild ravens are thought to have inhabited the tower for many centuries, supposedly first attracted there by the smell of the corpses of the executed enemies of the Crown. Allegedly, at the execution of Anne Boleyn in 1535, “Even the ravens of the Tower sat silent and immovable on the battlements and gazed eerily at the strange scene. A Queen about to die!” The ravens of the tower supposedly behaved much worse during the execution of Lady Jane Grey in 1554, allegedly “pecking the eyes from the severed head” of the queen.

THE POEM

“The Raven” is a narrative poem by American writer Edgar Allan Poe. First published in January 1845, the poem tells of a talking raven’s mysterious visit to a distraught lover, tracing the man’s slow descent into madness. The lover, often identified as being a student, is lamenting the loss of his love, Lenore. Sitting on a bust of Pallas, the raven seems to further instigate his distress with its constant repetition of the word “Nevermore.”

Publication of “The Raven” made Poe widely popular in his lifetime, although it did not bring him much financial success. Soon reprinted, parodied and illustrated, critical opinion is divided as to the poem’s status, but it nevertheless remains one of the most famous poems ever written.


Carrion (from the Latin “caro,” meaning “meat”) refers to the dead and decaying flesh of an animal.
The name Edgar Allan Poe brings to mind images of murderers and madmen, premature burials and mysterious women who return from the dead. His tales of terror make him a popular read at Halloween.

He is widely acknowledged as the inventor of the modern detective story and an innovator in the science-fiction genre, but he made his living as America’s first great literary critic.

Just as the bizarre characters in Poe’s stories have captured the public imagination, so, too, has Poe himself. He is seen as a morbid, mysterious figure lurking in the shadows of moonlit cemeteries or crumbling castles. But much of what we know about Poe is wrong, the product of a biography written by one of his enemies in an attempt to defame the author’s name.

The real Poe was born to traveling actors in Boston. Edgar was the second of three children. His other brother, William Henry Leonard Poe, would also become a poet. Within three years of Poe’s birth, both of his parents died, and he was taken in by the wealthy tobacco merchant John Allan while Poe’s siblings went to live with other families. Allan would rear Poe to be a businessman, but Poe had dreams of being a writer. By the age of 13, Poe had compiled enough poetry to publish a book.

The publication of “The Raven” in 1845 made Poe a household name. He was now famous enough to draw large crowds to his lectures. He published two books that year and briefly ran his own magazine. The failure of the venture, his wife’s deteriorating health and rumors about Poe drove him out of New York City in 1846. In 1847, Virginia died at the age of 24. Poe was devastated and was unable to write for months. His critics assumed he would soon be dead. They were right. Poe only lived another two years.

www.poemuseum.org


POE VOCABULARY

Find a copy of “The Raven” from your library or online. Then see if you can match the meaning to the words taken from the poem.

1. pondered a. sad songs
2. lore b. cowardly, mean-spirited
3. rapping c. liquid that eases pain
4. bleak d. head
5. ember e. thought
6. entreat ing f. burning piece of wood glowing orange
7. flutter g. speech
8. beguiling h. story
9. crest i. pale
10. craven j. horrible person
11. un regain k. knocking
12. fowl l. ugly
13. discourse m. type of feather
14. placid n. peaceful
15. aptly o. sad, black and cold
16. dirges p. asking for
17. diving q. guessing
18. wretch r. storm
19. respite s. charming
20. tempest t. movement of wings, noise
21. balm u. rest from
22. plume v. bird
23. pallid w. well

WORD SCRAMBLE

How many three- and four-letter words can you think of using the letters in RAVEN?

1. _______ _______ _______ 7. _______ _______ _______
2. _______ _______ _______ 8. _______ _______ _______
3. _______ _______ _______ 9. _______ _______ _______
4. _______ _______ _______ 10. _______ _______ _______
5. _______ _______ _______ 11. _______ _______ _______
6. _______ _______ _______ 12. _______ _______ _______

RAVEN FACTS

Most ravens are between 2 to 3 feet in length and weigh between 2 to 4 pounds.

The raven is the largest bird of the crow family.

Ravens can live 40 years in the wild and 70 in captivity.

Ravens are known to steal the food of many birds and mammals, even from dogs. They can act in pairs: one captures a dog’s attention while the other steals its food.

Chinese, Egyptian, Greek, Semitic and Siberian legends depict the raven as a messenger of storms or bad weather. In African, Asian and European legends, the raven forecasts death.

A raven’s calls can express tenderness, happiness, surprise or rage. Ravens can imitate birds with the same vocal note, mimicking perfectly the crows.

They are considered among the most intelligent of all birds. Ravens have even been taught to count.

Ravens are very playful. In Canada, ravens perched on the roofs of supermarkets waited for people to pass so that they could push snow on them.

Ravens are called wolf birds because they are known to lead wolves to prey and then feed alongside them.

Raven pairs mate for life and use the same nest each year.

POE VOCABULARY ANSWERS: 1. e, 2. h, 3. k, 4. o, 5. f, 6. p, 7. t, 8. s, 9. d, 10. b, 11. l, 12. v, 13. g, 14. a, 15. w, 16. a, 17. q, 18. j, 19. u, 20. r, 21. c, 22. i, 23. i

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Mountain America Credit Union
Bats are the only mammal capable of true flight. Utah is home to 18 varieties of bats, which eat mostly insects. The largest Utah bat, the big free-tailed, has a wingspan of 17 inches but weighs less than 29 grams. The smallest, the western pipistrelle, is the size of a hummingbird and weighs 2.8 grams.

Bats are shy animals that use echolocation to find flying insects. Bats benefit humans by eating about 30–100% of their body weight in insects each night. Most Utah bat species are year-round residents of the state and hibernate during the winter. Some bat species migrate south and remain active all year. Migrating bat species breed in the spring. Hibernating bat species usually breed in the fall. In the late spring, female bats gather in large nursery colonies where the young are born in May or June. Natural enemies of bats include bobcats, hawks, house cats, owls, raccoons, ringtails, snakes and weasels.

Utah law protects all bat species.

**Did you know one bat could eat up to 1,000 mosquitoes an hour?**

**WHAT IS ECHOLOCATION?**

Echolocation is the use of sound waves and echoes to determine where objects are in space. Bats use echolocation to navigate and find food in the dark. To echolocate, bats send out sound waves from their mouth or nose. When the sound waves hit an object they produce echoes. The echo bounces off the object and returns to the bat’s ears. Bats listen to the echoes to figure out where the object is, how big it is, and its shape.

Using echolocation, bats can detect objects as thin as a human hair in complete darkness. Echolocation allows bats to find insects the size of mosquitoes, which many bats like to eat. Bats aren’t blind, but they can use echolocation to find their way around very quickly in total darkness.

— wildawareutah.org

To find out more about bats and their importance, visit <https://askabiologist.asu.edu>.
Bats are the most maligned and misunderstood of all mammals. Negative misconceptions surround bats despite the fact that most people know them only as mysterious, fluttering objects observed at dusk on summer evenings. Mysteries aside, bats are fairly innocuous to humans. Bats don’t attack people to entangle themselves in their hair; they really aren’t interested in people at all. As mammals, they have hair, regulate their body temperatures internally, and nurse their young. Bats are the only mammals that fly, and although they have eyes and see very well, they also have the ability to navigate in the absence of sufficient light by using echolocation. This sensory system is known as echolocation. It is this constant reaction to incoming echoes that makes a bat in flight appear to flutter or falter, when in reality bats are superb fliers. A latest report, there are 925 bat species worldwide, 44 species in North America, and 18 species that reside in Utah. All 18 of Utah’s bats eat insects. In fact, these bats are perhaps the most significant predators of night-flying insects, giving them an important function in the ecosystem. During the day some bats roost in caves such as caves and abandoned mines, while others prefer to roost in crevices and hollows of trees. Recent bat research indicates that numbers of some bat species in Utah may be declining, most likely from the loss of their natural roosting habitat. In light of this information, it is important to note that timber harvesting practices and abandoned mine closures can be undertaken in ways that benefit bats. Dead and down trees can be scored on logged sites to allow them to be used as bat roosts, and abandoned mines can be gated to keep people out while allowing bats continued access. Bats should be admired rather than feared. They are capable of truly aeroacrobatic displays as they forage for insects each night. With a minimum of effort, we can watch bats maneuvering around and over trees in the neighborhood, diving at moths under street lamps, or passing to and fro in the back yard. The emergence of a group of bats from a roost is truly a spectacular sight, with bats flying in close proximity to each other while avoiding collisions with other bats as well as objects in the landscape.
Make a bat

What you need:
Template at right
1 x A4 sheet of black card
2 x googly craft eyes

Activity:
Color the template in with pencils or crayons or trace it onto black card and cut out.
Make a slightly more detailed bat by adding googly craft eyes and white fangs.

For best effect, make lots of bats and then string them from your front porch on Halloween.

To add a hanging string, just staple, glue or tape a piece of string to the back of the bat’s head.

SOURCE: www.kidsspot.com.au

Have a fun and safe Halloween

Halloween is almost here! While we all want to enjoy the fun that comes along with this spooky holiday, doing so safely is the best plan. Here are some ways to stay safe while haunting the neighborhood this year.

If you are trick-or-treating:
• Make sure your costume has reflective tape or other material so passing drivers can see you.
• Walk on the sidewalk, not in the road.
• Don’t enter a stranger’s home or car.
• Make sure your costume doesn’t restrict the way you walk or see.
• Use nontoxic makeup and test on skin before applying all over.
• If your parent doesn’t go with you, make sure they know the route you plan to take and what time you’ll be back.
• Don’t eat candy in unsealed packaging.

If you are carving pumpkins:
• Always get an adult’s help.
• Don’t use big knives.
• Use pumpkin carving kits with small, safe blades that can cut the pumpkin but not hurt you.
• Use battery-powered tea light candles instead of traditional candles to avoid contact with fire.
• To be really safe, paint or draw on your pumpkin instead of carving it.

SOURCE: www.kidsspot.com.au

Anatomy of a bat

For best effect, make lots of bats and then string them from your front porch on Halloween.

To add a hanging string, just staple, glue or tape a piece of string to the back of the bat’s head.

SOURCE: www.kidsspot.com.au