



## Take a Leap!



photo by Denise Mattox

### Mini Fact:

In Greece, it's considered unlucky to marry during a leap year.

At the end of this week, people all over the world will experience a special day, one that usually comes only every four years.

This year, February will have 29 days, and 2020 will have 366 days. In most years, February has only 28 days.

How did we get this extra day?

### A calendar lesson

We define a year as the number of days it takes for the Earth to orbit the sun. (A day is one rotation of the Earth on its axis.)

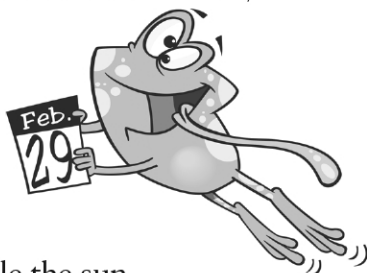
The problem is that the Earth doesn't orbit the sun in a round number of days.

In fact, it takes 365 1/4 days for our planet to circle the sun.

If we didn't have leap days and leap years, eventually our months would shift to different seasons. For example, July might be in the springtime.

In 1582, Pope Gregory XIII introduced the Gregorian calendar. This version of the calendar helped solve the problem of the shifting days and months. This is how it works:

- Every year that can be evenly divided by 4 is a leap year, EXCEPT:
- Years that can be evenly divided by 100 (centuries) are **not** leap years, BUT
- Years that can be divided by 400 are leap years.



### Time for some math

Whew! Let's give it a try. Put your math hat on.

This year is 2020. But what about 2021?

$$2020 \div 4 = \underline{\hspace{2cm}}$$

Therefore, 2020 is ☐ is not ☐ a leap year. (Check one.)

$$2021 \div 4 = \underline{\hspace{2cm}}$$

2021 will ☐ will not ☐ be a leap year because it is not evenly divisible by 4.

### What about centuries?

We celebrated the last year of the **century** (100 years) and **millennium** (1,000 years) 20 years ago, in 2000. You may be alive when the next millennium arrives in 2100!

$$2100 \div 4 = \underline{\hspace{2cm}}$$

$$2100 \div 100 = \underline{\hspace{2cm}}$$

$$2100 \div 400 = \underline{\hspace{2cm}}$$

So 2100 will ☐ will not ☐ be a leap year. Why?

### Leap day

What do we do with the extra day in a leap year? It is tacked on to the end of February. It becomes February 29. It's called leap day.

### Leap birthdays

Do you know anyone with a leap birthday? You might think that someone born on Feb. 29,

called a **leapling** or a **leaper**, would have a birthday only every four years. But most leap birthdays are celebrated on Feb. 28 or March 1 in non-leap years.

### A remembering rhyme

You may already know this rhyme. There are many versions of it. The poem helps us remember the differences in the number of days in each month.

*Thirty days hath September,  
April, June and November;  
Thirty-one the others date,  
Except in February, twenty-eight;  
But in leap year we assign  
February, twenty-nine.*

Answers:  
2020 ÷ 4 = 505. 2020 is a leap year.  
2021 ÷ 4 = 505.25. 2021 is not a leap year.  
2100 ÷ 4 = 525  
2100 ÷ 100 = 21  
2100 ÷ 400 = 5.25. 2100 will not be a leap year.



photo by Alexas Fotos

### Resources



#### On the Web:

- [youtu.be/EDmdCr4jAmA](https://youtu.be/EDmdCr4jAmA)

#### At the library:

- "Mommy, Where's My Birthday?" by Lakisha Cornell
- "Stink and the Freaky Frog Freakout" by Megan McDonald (Stink was born on Feb. 29.)

## Try 'n' Find

Words that remind us of leap years are hidden in this puzzle. Some words are hidden backward or diagonally, and some letters are used twice. See if you can find:

AXIS, BIRTHDAY,  
CALENDAR, CENTURY,  
DAYS, DIVISIBLE,  
EARTH, EXTRA,  
FEBRUARY, FOUR,  
GREECE, GREGORIAN,  
LEAP, MILLENNIUM,  
RHYME, ROTATION,  
SEASONS, YEAR.

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



## Cook's Corner

### Cinnamon Graham Treats

#### You'll need:

- 10 to 12 whole graham crackers
- 1/2 cup butter
- 1/4 cup brown sugar, packed
- 1/4 cup white sugar

- 1 teaspoon cinnamon
- 1 cup pecans, chopped



#### What to do:

1. Break graham crackers in half; arrange with edges touching in a jelly roll pan.
2. Melt butter in a separate pan over medium heat; stir in sugars, cinnamon and pecans.
3. Cook 5 minutes, stirring frequently.
4. Pour sticky mixture evenly over graham crackers.
5. Bake in a 375-degree oven for 12 minutes.
6. Cool before serving. Serves 6.

\* You'll need an adult's help with this recipe.

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by Jan & Carey Orr Cook



Study the definition. When you know the missing word, fill in the letter boxes and the sentence blanks.

Answers: Unusual, February, Addition, Birthday.

1. Not ordinary or common; different from others (7-letter adjective)

□ □ □ □ □ □ □

2. The second month of a calendar year (8-letter noun)

□ □ □ □ □ □ □ □

3. Anything that is more than what you have (8-letter noun)

□ □ □ □ □ □ □ □

4. Yearly celebration of the day that someone was born (8-letter noun)

□ □ □ □ □ □ □ □

1. Maria saw \_\_\_\_\_ colors on a bird in her backyard.
2. Connie knows that almost every \_\_\_\_\_ has 28 days.
3. Billy ate a sandwich in \_\_\_\_\_ to his favorite grapes.
4. Brenda asked Ellen when her \_\_\_\_\_ happens.

### Mini Jokes



**Logan:** Where do most people eat on leap day?  
**Lindsay:** IHOP!

### Eco Note



The ongoing Australian firestorms may have killed billions of animals in recent weeks. Beyond the



photo by George Bayliss

scorched koalas and kangaroos, scientists also fear the **long-footed potoroo** marsupial may now be extinct in the

wild due to the southeastern bushfires. Experts fear the ecosystems there will never recover, with several other animal and plant species left critically endangered or extinct.

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### For later:

Look in your newspaper for articles about leap day.

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