Robots

Up, Up and

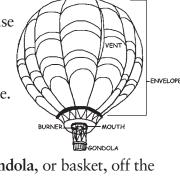


Try to imagine how it would feel to float on a cloud. That's how it feels to ride in the basket of a hot air balloon!

In the United States, hot air ballooning is becoming a popular sport. There are about 7,500 hot air balloons operating in the country. The Mini Page talked with an expert about hot air ballooning.

How does it work?

A hot air balloon flies because the air inside the envelope, or balloon, is hotter than the air outside. Hot air is lighter than cold air, so it rises and lifts the



balloon and its gondola, or basket, off the

The air is heated with a burner that runs on a fuel called **propane**.

The pilot uses the burner and opens and closes a vent in the envelope to control how warm the air is inside the envelope. That way he or she can control how high or low the balloon flies.

Into the wild blue yonder

Hot air balloons usually fly about 1,000 feet off the ground. A balloon can go much higher, but above about 12,000 feet there is not enough oxygen in the air for the passengers in the gondola to breathe.

Mini Fact:

The first propane burner for hot air balloons was invented in the late 1950s.

The speed of the balloon depends on the wind speed. Pilots try to fly when the wind is very calm, usually either around sunrise or just before sunset. If the wind speed on the ground is more than about 7 miles per hour, pilots will not fly because they have less control of the balloon while it's on the ground.

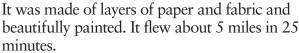
Balloons generally fly around 10 miles per hour (the wind speed is faster at a higher altitude). Hot air balloon flights usually last one to two hours.

Balloon pioneers

Most modern hot air balloons are made of rip-stop nylon fabric, similar to a kite or tent material. The gondola is made of wicker and has an aluminum or

stainless steel frame.

But hot air balloons weren't always made of materials like these. Two French papermakers, the Montgolfier brothers, made the first balloon to carry human passengers.



The fuel for that flight was made of straw. Two passengers used pitchforks to put the fuel into a container for holding burning coals. The event was very exciting to Parisians — about half the city came to watch.

Ballooning today

Balloon festivals are held in every area of the United States. At many hot air balloon festivals, balloon owners participate in an evening "glow." They inflate their balloons and raise them off the ground, but they do not fly. The fire inside the balloons makes the balloons light up like giant lanterns.

One of the festivals, the QuickChek New Jersey Festival of Ballooning, celebrates its 35th anniversary this year. It will be in Readington, New Jersey, July 28 through 30. One hundred balloonists will gather to fly their balloons, meet new people and take part in competitions.

In addition to the "teardrop" shapes invented by the Montgolfiers and made popular in "The Wizard of Oz," hot air balloons come in different shapes, too. Pilot Bob Romaneschi of Arizona flies three balloons in the shapes of giant bumblebees.



Barry DiLibero, a pilot from Pennsylvania, created a balloon shaped like the American flag. It's the size of a fivestory building! At 53 feet tall, 78 feet wide and 29 feet

deep, it's the world's largest free-flying American flag!

Resources



On the Web:

- balloonfestival.com
- youtu.be/eqDB3N_18ck

At the library:

- "Hot Air Balloons" by Joanne Mattern
- "Flying in a Hot Air Balloon" by Cheryl Walsh Bellville

Try 'n' Find

Words that remind us of hot air balloons are hidden in this puzzle. Some words are hidden backward, and some letters are used twice. See if you can find:

BALLOON, BASKET, BURNER, CONTROL, ENVELOPE, FABRIC, FESTIVALS, FLOAT, FLY, GLOW, GONDOLA, HOT, MONTGOLFIER, OXYGEN, PAPER, PARIS, PILOT, PROPANE, SPORT, VENT, WIND.

DMSCPROPANEHL WINDXALODNO MONTGOLFIERKOL ORTNEGYXON NRPARS B A LOONE AHFESTIVALSDL TOPILOT ZCIRBAFN JHETEKSABUBJE

Mini Jokes



Rene: What do balloons like to drink?

Reese: Soda pop!

There are now four times as many foxes living in urban areas of England than 20 years ago, or about one for every 300 citydwelling humans. Researchers found that London has about 18 foxes per square kilometer. Foxes seem to thrive in places like London because of the abundance of rats and mice.

Thank You

The Mini Page thanks Russ Mensch with the QuickChek New Jersey Festival of Ballooning for help with this issue.

Books from The Mini Page are wonderful

Teachers:

You'll need an adult's

For standards-based activities to accompany this feature, visit: bit.ly/MPstandards.

Cook's Corner **Spicy Beans and Rice**

You'll need:

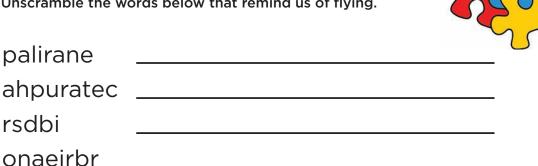
- 2 teaspoons olive oil
- 1 cup chopped red bell pepper
- 1/2 cup chopped onion (optional)
- 1 (15.5-ounce) can kidney beans, drained and rinsed
- 1 (1-ounce) package taco seasoning mix, divided
- 2 1/2 cups brown rice, cooked
- 1/2 cup reduced-fat shredded cheddar
- cheese

What to do:

- 1. Heat oil in large skillet; add bell pepper and onion. Cook on medium heat for 5 to 8 minutes until soft. Add beans and cook for 2 more minutes until beans are warm.
- 2. Remove from heat. Stir in half of taco seasoning packet. 3. Place warm cooked rice in bowl; mix in other half of taco seasoning. 4. Stir in bean mixture. Top with cheddar cheese. Serves 4.

Puzzling

Unscramble the words below that remind us of flying.



Answers: airplane, parachute, birds, airborne.

