

6th Grade Informational Writing Prompt

PROMPT

Did you know that balloonists have flown balloons all around the world? Read the two articles. Compare and contrast the differences between the two flights. What do you notice is similar and different between the two flights? Include information about the balloonists, the aircraft, and the length of the flights. Make sure you use the information provided in the source material to support your essay.

TARGETED STANDARDS CONNECTION

LEARNING EXPERIENCE

Materials:

Web: "Around the World in 14 Days! (Science Scoops)."

<http://go.galegroup.com/ps/i.do?id=GALE%7CA98467668&v=2.1&u=pioneer&it=r&p=ITKE&sw=w&asid=63055bf85fc74a997add09c0b3e062cc>

Web: "Balloon Boys (Science News)."

<http://go.galegroup.com/ps/i.do?id=GALE%7CA55183115&v=2.1&u=pioneer&it=r&p=ITKE&sw=w&asid=5947dfc1f9684ab4cd7beac29058a9a3>

Instructional Sequence:

1. Teacher hands out the typed up prompt and text.
2. The teacher introduces writing prompt and explains that students will be listening to/reading a text, and using that text to answer the prompt.
3. The teacher reads aloud "Around the World in 14 Days!" As the teacher reads, students may be underlining or highlighting information that they may find useful for responding to the prompt.
4. Upon finishing the read aloud, students will be provided with paper to respond to the prompt.

Around the World in 14 Days!

After five previously failed attempts, U. S. balloonist Steve Fossett achieved a world record. He is the first person to fly a balloon solo around the world. Yes, the 58-year-old millionaire-adventurer finally succeeded. He ended his record-breaking, 14-day flight on July 2, 2002 in a dusty riverbed on the two-million-acre Durham Downs cattle ranch in Queensland, Australia. This touchdown was scored on the edge of what Aborigines call "The Never Never," some of the most isolated outback in Australia.

Fossett took off in his giant 140-foot-tall by 60-foot-wide Spirit of Freedom balloon from far western Australia. He then flew nearly 19,500 miles around the Southern Hemisphere before his balloon crashed to the ground with a thud. Actually Fossett crossed the finish line over open ocean—that's when he passed 117 degrees east longitude, the point at which he had begun his trip.

No more long-distance balloon trips, he assures us. In fact, he says that his balloon flights have been the most dangerous things he's ever done. Indeed, Fossett's fourth attempt in 1998 almost killed him when his balloon was torn to shreds by lightning and plummeted 29,000 feet into the Coral Sea off Australia.

Fossett's balloon capsule, which is the about the size of a closet, will have a home at the Smithsonian Institution in Washington DC. There is will be hung next to Charles Lindbergh's Spirit of St. Louis, which made the first solo nonstop airplane crossing of the Atlantic Ocean in 1927.

Balloon Boy

(see attached)

FABRICE COFFRINI/KEystone/AP WIDEWORLD



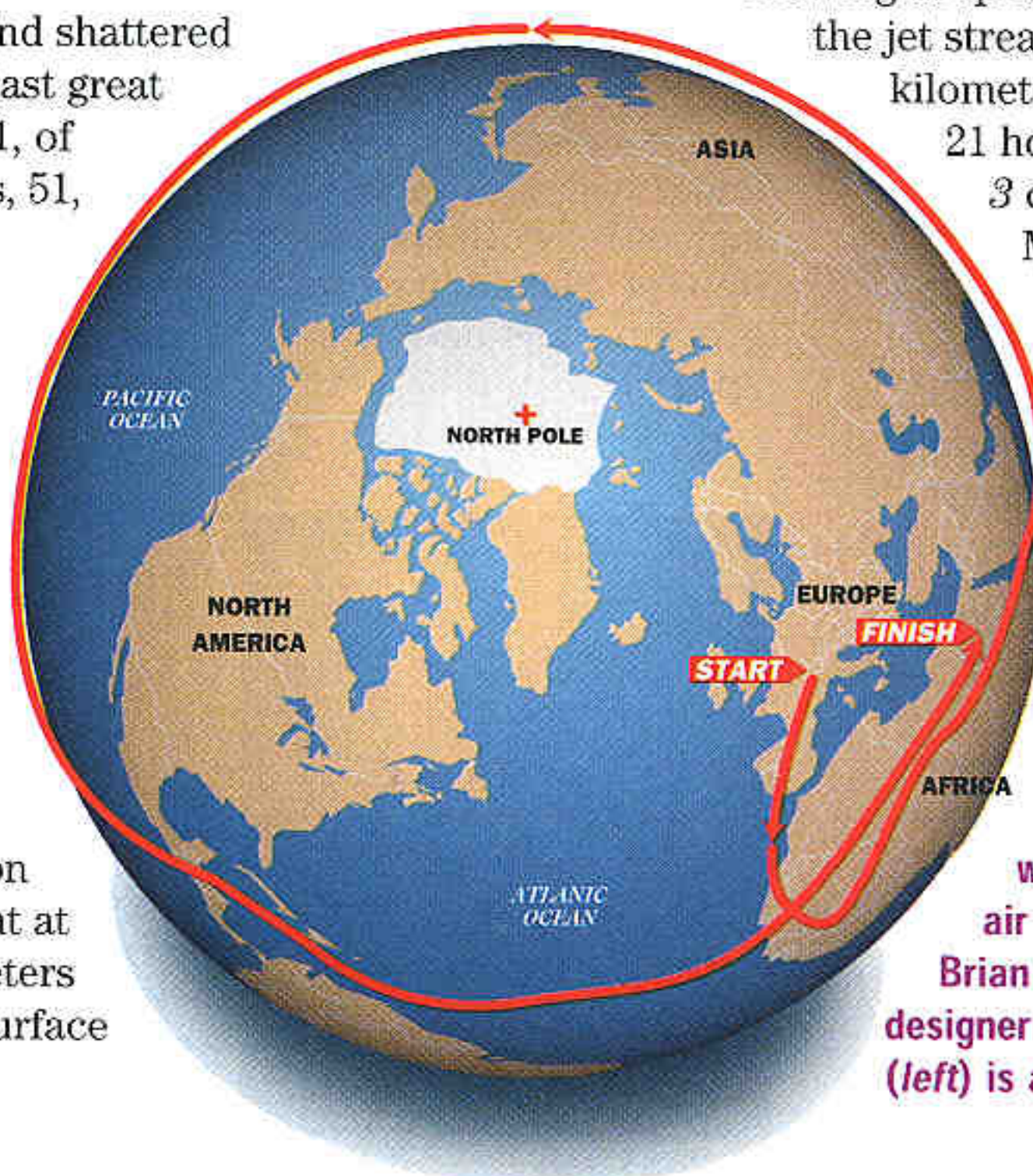
PETER DE JONG/AP WIDEWORLD

SPECIAL REPORT

Balloon Boys

On March 19, 1999, two adventurers floated into history and shattered one of exploration's last great records. Bertrand Piccard, 41, of Switzerland, and Brian Jones, 51, of the United Kingdom, became the first pilots to ever fly a balloon nonstop around the world.

After weeks of frustrating delays due to bad weather, their balloon, *Breitling Orbiter 3*, lifted off on March 1 from Chateau-d'Oex (sha-TOE-deh) in the Swiss Alps. The pilots cruised southwest to North Africa to hitch a ride on the *jet stream*, a wind current at an altitude of about 9,114 meters (30,000 feet) above Earth's surface that flows west to east.



Blowing at speeds up to 322 km/h (200 mph), the jet stream carried the balloon 46,759 kilometers (29,056 miles) in 19 days, 21 hours and 47 minutes. *Orbiter 3* crossed the finish line over Mauritania (see map, left). "I am with the angels and just completely happy," Piccard exclaimed upon landing in the Sahara Desert.

The *Breitling Orbiter 3*, a 55-meter (180-foot)-high silvery balloon (above) is a mixed, or Rozier balloon. It's a combination of hot air and gas, with a helium cell inside the hot air envelope. Record-setting pilot Brian Jones (inset, right) is a balloon designer and engineer. Bertrand Piccard (left) is a psychiatrist.



Since 1981, more than 20 attempts to circle the globe in a balloon have failed (see *SW* 11/16/98). *Orbiter 3* may have gotten its extra boost from technology. The balloon was fueled by a high-tech blend of hot air and gas (see diagram, right). Its cramped 8-by-9-ft (2.4-by-2.7-m) cabin was stocked not only with bunk and toilet, but with desks, fax, and satellite phones. With no steering wheel, the pilots relied on *helium* (the second lightest gas) and hot air trapped in the balloon to maneuver between altitudes and find smooth-sailing winds—like surfers trying to catch the perfect wave.

Jet streams can divide into branches without warning, carrying a balloon far off course. But the *Orbiter* pilots were guided by *meteorologists* (weather scientists) on the ground using advanced computer models and sophisticated satellite data of the Earth's hour-to-hour wind patterns.

"I am with the angels and just completely happy."—Balloonist Bertrand Piccard after *Orbiter* landed in the Sahara Desert.

Still, the trip was no picnic. The pilots lived on freeze-dried food rations and rarely slept. At one point they had to reach outside to chip off ice that had formed on cables, which threatened to crash the balloon. At 9,144 m (30,000 ft) the outside temperature is -40°F (-40°C). Throughout the historic trip, meteorologists helped navigate the pilots around storms, unruly winds, and stagnant air. "The navigation was like a jigsaw puzzle," says flight director Alan Noble. "We finally managed to pull it all together."

—Michael Cannelli

Tent balloon

holds up a tent that insulates the top of the large helium cell below.

Tent

Helium valves

Helium cell

provides the main lift for the balloon.

Hot-air cone

heats and expands the helium gas, increasing the balloon's lift.

Tear-out skirt

can be torn off in an emergency. The rest of the envelope then becomes a gigantic parachute.

Solar panels

recharge five lead batteries that supply power to onboard equipment.

Pressurized cabin

provides shelter against cold and thin air for the two pilots.

BREITLING ORBITER 3

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External insulating layer

Appendix for venting excess helium

Propane burners

heat air, which expands and rises into the balloon. The burners help control the balloon's altitude.

Fireproof layer

Cabin

Bunk

Hatch

Kitchen

Control panel

Oxygen and nitrogen tanks

Toilet

Fuel tanks