

ELA
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Grade 3
Research Simulation Task
Steps to Flying and Landing
VF906000

Today you will research hot-air balloons. You will read “Soaring ‘on the Wings of the Wind.’” Then you will read “Riding the Wind.” As you review these sources, you will gather information and answer questions about hot-air balloons so you can write an essay.

Read the article “Soaring ‘on the Wings of the Wind.’” Then answer the questions.

Soaring ‘on the Wings of the Wind’

by Lois Miner Huey

- 1** *On June 24, 1784, Edward Warren Jr. made history as the first American to go up in a hot-air balloon. He was 13 years old.*
- 2** Peter Carnes, a Maryland innkeeper and lawyer, placed a small iron stove in a balloon basket one fine June day in Bladensburg, Maryland. He then set fire to the straw and wool inside the stove. Smoky hot air swelled the balloon and sent it up. Carnes had done it. He was the first American to develop a method to lift a balloon using hot air.
- 3** Carnes decided to try it again 10 days later in nearby Baltimore. A huge crowd gathered as he launched a tethered balloon, 35 feet wide and 30 feet tall, 200 feet into the air. The crowd yelled and clapped as Carnes sent the balloon up time and again.
- 4** By late day, the people shouted to send a person into the air.



The Boy Flies

5 Carnes weighed more than 200 pounds—too heavy for the balloon. He wasn't sure what to do. Luckily, 13-year-old Edward Warren Jr. stepped forward and exclaimed that he'd go. Edward's parents nodded in approval. They believed the balloon was safe because it was tethered to the ground with ropes.

6 The crowd roared as Carnes helped Edward climb into the basket. While Carnes stirred the fire in the stove, Edward stood holding the ropes, staring up into the huge balloon over his head. He probably wondered if the balloon would indeed be safe.

7 Hot air from the stove burst upward. The balloon slowly rose. Newspaper reporters in Baltimore described Edward as having the courage of "an old Voyager." The onlookers screamed themselves hoarse. Edward stared down at the top of the city, its people growing smaller and smaller, and out at the bay in the distance. He was the first American to see such views.

Edward smiled and tore off his hat and waved it. The crowd yelled louder, and men waved their hats in return.

Carnes left Edward 200 feet in the air for several minutes before pulling him down. With shaky legs, Edward climbed from the basket. The audience cheered, clapped, and collected money for the boy, a reward for his bravery. By flying “on the wings of the wind,” Edward Warren Jr. had played a big part in the history of flight.

Ballooning was soon popular at fairs and festivals. During the Civil War, both sides used them for spying. About 100 years after Carnes’s experiment, gasoline engines in airplanes replaced hot air and wind, and people soared even higher.



Early Ballooning in France

Less than a year before Carnes lifted his balloon in Bladensburg, French inventors and brothers Joseph and Étienne Montgolfier sent a sheep, rooster, and duck into the air. The animals rode in an untethered (not tied down) hot-air balloon for two miles, then landed safely. American representative John Jay, who was in France negotiating the end of the Revolutionary War, proclaimed, “Travellers may hereafter literally pass from country to country on the wings of the wind.” The first humans soon followed, flying in a Montgolfier hot-air balloon over Paris.

“Soaring ‘on the Wings of the Wind’” by Lois Miner Huey from HIGHLIGHTS FOR CHILDREN, INC. Copyright © 2012.

Read the article “Riding the Wind.” Then answer the questions.

Riding the Wind

by Ann
Lessen

What’s it like to fly in a hot-air balloon?

1 Imagine sailing through the sky, high above buildings and trees, in perfect peace and quiet. No noisy engines. No smudgy window in your way. No blustery wind blowing in your face. You can’t feel or hear the wind because you’re traveling in the exact same direction and at the exact same speed it is.

How does a hot-air balloon work?

2 Hot air is lighter than cold air, so warm air rises while cooler air sinks. Because the air inside a hot-air balloon is warmer than the air outside, it rises, lifting the entire balloon.

3 A hot-air balloon has three main parts: the balloon, called an envelope; a basket, where passengers ride; and a burner system, which supplies the hot air.

4 Most balloon envelopes are made of strong, lightweight nylon. They vary in size and shape, but they have to be really, really big to lift even a single person. Most weigh more than an adult man and use more fabric than you’d need to cover a baseball diamond.

5 The basket is usually made of wicker, which is sturdy but not too stiff. It needs to bend a bit for a soft landing, just like a good jumper bends her legs instead of keeping them stiff and straight when she lands.

6 When the burner system blasts flames, it makes a noisy whooshing sound, but once the balloon is flying, the burner can be turned off. The air in the envelope will then slowly cool, and the balloon will gradually sink unless the pilot starts the burner again.

7 To steer, a pilot adds hot air to go up or lets it out to go down, until he finds a breeze blowing in the direction he wants to fly. But no matter which way the wind blows them, balloonists have an amazing bird’s-eye view of the world.



"Riding the Wind" by Ann Lessen from CLICK MAGAZINE, Carus Publishing Co. © 2007.

Photograph of men inflating hot-air balloon (Image DH012490), copyright © Dave G. Houser/Corbis. Used by permission.

Anchor Set

A1 – A8

No Annotations Included

First you need a balloon called an envelope, a basket, and a burner system. Next, turn the burner system on and that makes smoke. That smoke goes into the envelope and the envelope turns into a balloon shape. Then, the air inside the envelope heats up and turns into hot air. Hot air is lighter than cold air so the balloon rises. Once the balloon's in the air the pilot can turn the burner off so the air cools down and cold air is heavier than hot air so the balloon sinks, but when the pilot turns the burner back on the air heats up again and it goes back up. Finally, to land

you turn the burner system off and you sink to the ground. The steps are different because in Soaring on the Wings of Wind it was the first american hot air balloon and in Riding the Wind they were modern hot air balloons. The first hot air balloon used a stove that burned wood and straw and the modern hot air balloon uses a burner. The steps are different because the first hot air balloon needed a stove it still uses hot air to rise and they used a rope to pull it down. The modern hot air balloon use a burner system still uses hot air to rise but it uses cold air to sink down to the ground.

Score
Anchor Paper 1
Reading Comprehension and Written Expression
Score Point 3

The steps to flying and landing a hot air balloon are:

- 1) Burner shoots hot air into the envelope of the balloon.
- 2) Hot air makes balloon swell and float into the air.
- 3) To steer the balloon you have to add hot air every once in a while to make the balloon go up and down until you find a breeze to carry you away.
- 4) To land the balloon find a safe landing spot and let the hot air out of your balloon slowly until you reach the ground. (The basket is made of wicker so it should bend a little when you land so don't be alarmed.)

The articles are the same because they both tell you about hot air balloons and how they fly. For example, I read in "Soaring on the wings of wind" that Peter Carnes put a stove inside a hot air balloon then set fire to the hay and straw inside the stove to make hot and smoky air come out of the stove that made the balloon rise. In "Riding the Wind" I read that the burner shoots hot air into the envelope which makes it rise. Those are both instructions on how balloons fly just in different words. The way that the stories are different is that Riding the Wind gives more instructions on how a balloon flies than Soaring in the wings of wind does. Soaring on the wings of wind tells more the story of who and what used it. Riding the wind gives more clear instruction and the step by step process of how to fly a hot air balloon.

Score
Anchor Paper 2
Reading Comprehension and Written Expression
Score Point 3

I think the articles are similar in how they describe how hot-air balloons fly and land. They both say that warm air moves the balloon up and cool air makes it go down. That's why the articles are similar.

Both articles say that warm air pulls the balloon up. Article 1 says "Smoky hot air swelled the balloon and sent it up". That is one way of saying hot air makes a balloon go up. Article 2 says "Because the air inside a hot-air balloon is warmer than the air outside, it rises, lifting the entire balloon". That is how the articles say that warm air makes a balloon go up.

Article 2 says that cool air lowers the balloon. It says "The air in the envelope will then slowly cool, and the balloon will gradually sink unless the pilot starts the burner again". That's a way to say cool air makes a balloon go down. It also says "Hot air is lighter than cool air, so hot air rises while cooler air sinks". These are ways article 2 says that cool air lowers a hot-air balloon.

Hot air moves a balloon up and cool pulls it down. What a fun way to move a balloon! Both articles say that hot air pulls a hot-air balloon up and cool lowers it down. What would you feel like if you rode a hot-air balloon? I would love it if I didn't go TOO high!

Score
Anchor Paper 3
Reading Comprehension and Written Expression
Score Point 2

The first air baloon used a stove wool and straw to send up the baloon. The modern day air baloon has a burner instead of a stove. The landing s very similar to going up. First you start the burner and let the baloon swell up with hot air. Then you get in and start flying with the wind. When you want to come down you let the hot air evaporate and then it wil fill up with cool air and start to drop down on the ground. The basket is soft so it will land smoothly because it is made of wicker.

Score
Anchor Paper 4
Reading Comprehension and Written Expression
Score Point 2

In this essey I will describe the steps to flying and landing and how these 2 articles are different and simmeler. First, for flying you get a fire going. Next, you set the fire into the straw and the wool. And then the hot air balloon sends off! Next, to land the hot air balloon. Well they just pull you down. these two articles are both simeller to each other because both of them are about hot air ballones an both of the articles are good. And they are different because one is about 13 year old Edward Warren in the hot air balloon and the other one is about imaginine sailing through the sky.

Score
Anchor Paper 5
Reading Comprehension and Written Expression
Score Point 1

The steps are in the first passage that you well the first passage did not give you any step so that a difference. The second passage gave you all the steps like the first step is to fill the envelope up with hot air then get the burner ready to take you to the sky the final step is to get in and FLY! The two passages director are similar because they both talk about the burner and the air. The differences are that the first passage does not talk about the directions and the second one did.

Score
Anchor Paper 6
Reading Comprehension and Written Expression
Score Point 1

They are both about hot-air balloons and they have to put hot fire so they can get the hot-air balloon in the air so they can look down at the buildings.

Score
Anchor Paper 7
Reading Comprehension and Written Expression
Score Point 0

one was about riding wind.

one as about a kid being the first person to be in a airballon.

Score
Anchor Paper 8
Reading Comprehension and Written Expression
Score Point 0

Practice Set P101 - P105

No Annotations Included

1 How to fly hot air balloons,
 first you get the burner. Then
 you add hot air. Then the balloon
 goes up. Finally if the hot air
 turns to cold air it goes down
 because hot air is lighter than
 cold air. So it lifts the
 balloon up. 2 They are similar
 because both passages are
 about hot air balloons and how
 to fly them. For example in the
 first passage it talks about
 a small stove that gives
 off hot air and lets the
 balloon go higher, and when →

They shut the stove off the
 balloon goes down because hot
 air is lighter than cold
 air.

The articles used different ways to describe the steps to flying and landing hot air balloons.

The way those two articles were different is because, in "Soaring on the Winds," it shows how the people did it in the old days. It has history, a story, and the steps all in one. In Riding the Winds, it has the steps and additional info. to teach you how to ride a hot air balloon, it doesn't have a story.

For Example in Soaring on the Winds: "Hot air from the stove burst upward. The balloon slowly rose."

Then in Riding the Winds: "To steer, a pilot adds hot air to go up or lets it out go down, until he finds a breeze blowing in the direction he wants to fly." You just turn the burner off and you will gradually sink if you want to go down.

That is the steps to fly and land an hot air balloon, also how the articles describe the step differently.

I am reading soaring 'on the wings of the wind'. In this story I learned who the first person to go in the air was. Well as we found out that the parents said yes to that 13 year old in to the air as the first person to attempt this. Now that is ari plans to get people places faster. I discovered that Amelia Earhart was not the first person to take flight. That was with her day from this story.

first you need fire so you can go up in the air. and have your hands on the ropes so you can lift up from the fire. and then for landing you need to have not to have not the basket stiff or sraight. and then you need to let the air from the hot air balloon cool down so you can go down to the grownd.

The two pictures are similar because they both have hot air balloons in the picture they both have people in it. What's different the first picture looks fake and the second one looks real.

Practice Set

(Order of Scores: Reading Comprehension and Written Expression, Conventions)

Paper	Score
P101	2,2
P102	3,3
P103	0,0
P104	1,1
P105	0,1