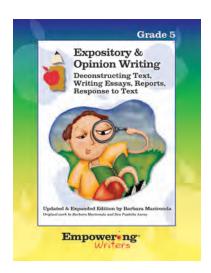


## Grade 5 Expository and Opinion Writing

Deconstructing Text, Writing Essays, Reports, Response to Text

#### **Student Pages for Print or Projection**

### SECTION 1: Recognizing Genre/Organization Part 1



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#### NARRATIVE, EXPOSITORY, OR OPINION?

Read the following paragraphs. Determine whether each paragraph is Narrative, Expository or Opinion. Circle your response.

1. Geologists classify rocks three ways. *Igneous rocks* come from deep within the earth and are formed from cooled magma. *Sedimentary rocks* are created when layers of sediment, plant and animal matter and rock fragments are pressed together. Finally, *metamorphic rocks* are produced when igneous or sedimentary rocks are exposed to intense heat or pressure.

Narrative

**Expository** 

Opinion

2. It was Monday morning and I was late for school. As I ran to catch the bus, I saw the glimmer of two sparkling green eyes peering out at me from within the overgrown bushes that circled our lawn. All day long, I kept remembering that set of playful, friendly eyes and I guessed that they belonged to a cat. I certainly hoped so; I'd been wanting a cat for a long time and I hoped that one had found me.

Narrative

Expository

Opinion

3. Don't you agree that fall is the best of the four seasons? The season starts with the excitement of a new school year in September. In October, everybody loves dressing up like a witch or ghoul and celebrating a spooky Halloween. Veteran's or Remembrance Day falls in November and is usually celebrated with parades and moving tributes to war veterans. Of course, there are great holidays in the winter, spring and summer also, but the festivities of autumn will always be my favorites.

**Narrative** 

Expository

Opinion



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#### **EXPOSITORY, OPINION, OR RESPONSE TO TEXT?**

Read the following paragraphs. Determine whether each paragraph is Expository, Opinion, or Response to Text. Circle your response. Be ready to explain how you determined the genre of each.

1. Becoming a pianist involves many skills. You must learn to read music and develop an ear so that you can recognize the way the notes should sound. Just as an athlete needs muscle strength and dexterity, a pianist must strengthen her or his fingers and learn to move them independently across the keys. This is accomplished by practicing exercises and scales every day. It's also important to listen to music in a variety of styles – blues, jazz, classical, and rock so that you'll become skillful in addressing these styles in your own playing.

Expository

Opinion

Response to Text

2. In the text titled The Civil Rights Movement we learn about the struggles in the United States during the 1950's and 60's that attempted to end racial discrimination. The author describes the many forms of prejudice, inequality, and segregation that existed and, in some ways, continue to exist even today. In paragraph two we learn about the role of Dr. Martin Luther King, Jr. and his efforts to bring about change through peaceful protest, community organizing, and non-violent agitation. The author goes on to describe the violent responses to these efforts that included bombings, lynchings, and police brutality. We learn that the Civil Rights Act was signed by President Lyndon Johnson in 1964. It was designed to make discrimination based on race, color, religion, gender, or national origin illegal. The article ends by outlining the many strides we've made as a nation, as well as the many challenges we continue to face in defending the civil rights of all our citizens.

**Expository** 

Opinion

Response to Text

3. In our town there is talk of changing the school schedule from a ten to twelve month calendar. Proponents believe that year-round school would provide more consistency and less "learning drop off" during the summer break. But, I disagree. Based on my experience, I know that by the time May and June roll around what I need most is some down time to relax, enjoy the out-of-doors, and to have some fun. There are many ways to learn, and not all of them are in the classroom! I think that kids need an extended break from all of the structured pressure we experience all year. I know year round schooling offers a greater number of shorter breaks, but from my perspective, there's nothing like two months of extended freedom to get my creative juices flowing!

**Expository** 

Opinion

Response to Text

### Student Reference Page



#### IS THAT A FACT OR AN OPINION?

At first, it might be challenging to tell expository writing and opinion writing apart. After all, the two types of writing are organized in much the same way with introductions and conclusions as well as main ideas (expository) or main reasons (opinion).

Here are some hints to help you tell the two apart.

Expository writing focuses on facts that inform you. Facts can be checked in books or online. For example:

- 1. There are five Great Lakes in North America.
- 2. The Komodo Dragon is the largest reptile in the world.

These two sentences would likely be found in expository texts.

While opinion writing may include facts, its purpose is to communicate an author's personal opinion on a topic. You could agree or disagree with it. For example:

- 1. Of the five Great Lakes in North America, Lake Superior is the most beautiful.
- 2. I think the Komodo Dragon is the most fearsome creature in all of Indonesia.

These two sentences present statements that you could agree or disagree with. They would likely be found in opinion writing.

So, as a general rule, when you're trying to decide if text is expository or opinion, just ask yourself:

- Does this sentence say something that I could check in a book or online? If so, it's probably a fact.
- Does this sentence say something I could agree or disagree with? If so, it's probably an opinion.

Here's another hint: Sentences that use phrases like "the best," "the worst," "the most," and "the least" are likely to be stating opinions. Words like "everybody," "nobody," "never," and "always" should alert you to that you are probably reading somebody's opinion.

- 1. The **best** way to celebrate your birthday is with a pool party.
- 2. The **most beautiful** flower is the world is the red rose.
- 3. Baseball is the **least** exciting sport in the world.
- 4. The **worst** vegetable of all is Brussels sprouts.

**Remember:** Opinion writing will include facts but expository writing **should not** include opinions.



### Student Reference Page

#### SENTENCE STARTERS FOR OPINION WRITING

<u>Pro</u>	Con
One thing I enjoy is	One thing I dislike is
My favorite is	My least favorite is
I absolutely love	I absolutely hate
It's easy to see why I like	It's easy to see why I dislike
I really appreciate	I just can't appreciate
I heartily approve of	I completely disapprove of
I get really excited when	I get very disappointed when
I feel positive αbout	I feel negative about
There's nothing I'd rather do than	There's nothing I'd like to avoid more than
I look forward to	I dread
I am in favor of	I am against
I adore	I abhor
I'm very impressed by	I'm unimpressed by
I strongly support	I strongly oppose
I'm fond of	I don't care for
Opinion Statement	
In my opinion,	My stance is that
To me,	From my point of view,
According to my point of view	I think that
My belief is that	It seems to me that
As I see it,	My position is that
My attitude is that	
Transition Words	

- because
- for the reason that
   as evidenced by
- given that
- as cited by

- since

- as illustrated by
- as demonstrated by the fact that

- as
- seeing that
- in view of the fact that
  in light of the fact that
  - supported by the fact that

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Name:		

#### STATING FACTS OR SHARING OPINIONS?

Look at the sets of sentences below. In each pair, one states a fact, one shares an opinion. Write an **E** next to the sentence that states a fact. This is the kind of sentence that is meant to inform, which is the focus of *expository* text. Write an **O** next to the sentence that shares an opinion. This is the kind of sentence expressing a personal point of view in an **opinion** piece. Keep in mind that opinions are *subjective*, meaning that different people may view the same thing very differently. Facts are *objective*, meaning that they can be proven to be true.

1.	That is a really ugly and over-priced dress.	0
	Clarkson High School band uniforms are made of gold and maroon fabric.	E
2.	The latest blueprints for the new school gym are the smartest ones yet.	
	The architect included plans for an indoor running track and pool.	
3.	On average, our school raises about \$5,000 from its annual gift wrap fundraiser.	
	Selling gift wrap to raise money for our school benefits everyone.	
4.	A great way to celebrate your birthday is to host a bowling and pizza party.	
	Callaway Skating Rink hosts over 100 birthday parties every year.	
5.	According to the Nielsen Agency, Americans, on average, watch more than 5 hours of television per day.	
	Cable television is superior to satellite dish or live streaming of TV programming	
	cable television is superior to succinite district live streaming of 14 programming	•
6.	The scientific name for the domestic dog is Canis lupus familiaris.	
	Dogs make really loving, loyal family pets that contribute a lot to the household	

**BONUS:** On a topic of your choice, write a pair of sentences, one factual and one opinion. Then, exchange with a neighbor and see if she/he can identify these correctly. Discuss how both of you made your determination.

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#### **READING #1**

#### **Title**

There are several thousand varieties of snakes that live in just about every part of the world. Of these, only 375 are known to be venomous. In the United States alone, almost 50,000 people are bitten by snakes every year. Of these, 18% deliver dangerous venom. It's important to know what to do when you come in contact with a snake, how to avoid getting bitten, and what to do if you receive a snake bite.

The good news is, unless snakes are provoked or frightened, they will not bite. If you see one of these slithering creatures while hiking or camping, the best thing to do is to back off. Snakes strike quickly and can lunge forward up to half of their body length to inflict a bite. So, if you accidentally disturb a snake, step back at least two large strides, putting at least six feet between you and the defensive reptile. In order to avoid surprising a snake, pay attention where you step. Stay on the hiking trail. Avoid walking through tall, dense grass. Exercise caution when climbing across or turning over rocks. If you come upon a dead log on the forest floor, don't step over it — a snake could be curled up on the opposite side. Instead, step onto the log, look down, then proceed. If, despite your best efforts, you accidentally disturb a snake, wearing long pants and sturdy boots can prevent a bite. Most importantly, never reach for or touch a snake in the wild, even if you think it is dead. Having a healthy respect for these serpents is the best way to avoid a bite.



If you do get bit, it's critical to call 911 immediately. Even if you think the snake isn't poisonous, it can be difficult to tell. Most importantly, stay calm. Do not try to capture or kill the offending creature. Instead, if you can, take a photo of the snake so that experts can identify it and determine whether it is venomous. If you're bitten on the leg or arm, remove any tight, constricting clothing or jewelry in case swelling occurs. Don't try to squeeze or suck out the venom, or to further cut the fang marks in an attempt to "bleed" out the poison. These tactics can cause infection.

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If, in spite of your preparation and attention you do get bit, be sure to follow the guidelines, above. Most snake bites, even those of venomous snakes, with prompt medical care, are not fatal. On your next hike, dress appropriately, proceed with caution and respect, and know what to do if a bite occurs. Preparation and knowledge is the key to appreciating these fascinating creatures.

Fill in the Summarizing Framework, below:

TOPIC:	
MAIN IDEA #1:	
MAIN IDEA #2:	



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Name:		
READIN	IG	#2

#### **Title**

I stepped out of our cabin door and gazed into the woods and glistening blue lake beyond. "This is awesome!" I whispered, as I did every time I ventured outside. As a city kid, I'd always dreamed of exploring the countryside. To experience nature. I could hardly believe I was spending three weeks at White Birch Camp. But here I was.

Jack, our counselor, blew his whistle and the kids emerged from their cabins in small groups. "Okay, campers," Jack called, "Do you have your gear?" We fumbled with canteens and water bottles. Jack handed out trail bars that we stuffed in our pockets. "Sun screen?" he barked. "Bug spray?" We nodded. "Okay, let's hit the trail!"

We set out in small groups, single file, each group led by a counselor. Our goal was to observe wildlife – birds, small forest creatures like squirrels, chipmunks, rabbits, and if we were lucky, maybe a fox, coyote or deer. We had just learned about reptiles and amphibians, and I was hoping to turn over a stone and find a sleek red salamander snoozing there. I had my phone in my pocket and was dying to take a picture to text home to my best friend, Marco. "Remember," Jack called over his shoulder, "We need to be quiet – no talking, and step lightly. If we go trampling through the underbrush we'll frighten off the forest dwellers." We tiptoed behind him, heading toward the woodland. He stopped us just where the trees began. "One more thing," he said, giving us all a stern look. "Stick together. Stay on the trail! No wandering off!"

Soon we were surrounded by shade. Leaves of all sizes and shapes whispered in the breeze. Every imaginable bird chirp, caw, and peep came together in a kind of forest symphony. There were rustling sounds in the underbrush, and I tried to imagine what could be making those sounds. I felt really alive in this place, this beautiful world I'd never experienced before. "There," Jake whispered, pointing between the trees. "A vernal pond..." We'd learned about these seasonal watering holes – places where frogs, toads, newts, and salamanders laid their eggs. The eggs hatched and the shallow pond became a safe place for these young amphibians. I paused for a better look, wondering what was living in the shallow puddle and the area around it.



Just then a fallen log surrounded by a pile of rocks caught my eye. The perfect place for a salamander to hide, I thought. It would only take a second...I stepped out of line onto the soggy ground, grabbed my phone, knelt in front of the log and reached to flip over a moist stone. Suddenly what looked like a pile of leaves moved. Thinking of the salamander, I reached to push the leaves aside. But what I saw was a snake, coiled and ready to strike, its yellow eyes and forked tongue flashing. I let out a scream and jumped away, falling on my behind. Jack was there in an instant, yanking my muddied self back onto the trail. "What is it?" he demanded. My cabin mates gaped at me as I brushed off my clothes. I'd dropped my phone into the pond, but didn't say a word about that.

"I was looking for a salamander...I went to turn over a rock - and there was a snake!"

Jack knelt in front of me. "Candice, did it bite you?" he asked, his eyes scanning my arms and legs.

"No..." I mumbled, fighting back tears, imagining what could have happened. Jack took this all in, stood, and gave my shoulders a squeeze.

"A close call," he said. "Which is why it's so important to stay on the trail with the group."

I was shook up, my knees trembling and my heart pounding. I bit my lower lip and took a deep breath. Jake and my trail mates could see I was upset. And embarrassed.

"It's okay," Jack said. "Candice just taught us all an important lesson. Now, let's move on!"

Off we went, deeper into the forest. I was more cautious than ever, watching where I stepped, and careful to stick with the group. I'd been scared, but luckily not hurt. And I had seen some wildlife. I smiled. I couldn't wait to tell Marco!

#### Fill in the Summarizing Framework, below:

This is a story about
The problem or adventure was that
The problem was solved or adventure concluded when
•



Name:

### Giant's Causeway

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Close your eyes and imagine a mounded pathway of black hexagonal columns forming steps leading from misty stone cliffs that disappear into the sea. If you think you're envisioning the set of a

movie about a prehistoric land or a strange planet in another solar system you'd be wrong. This place actually exists on the coast of Northern Ireland and it's called **The Giant's** 

Causeway.

Let's explore this legendary landform, investigate how it was formed, and discover the legend that draws almost a million tourists every year.

#### Peculiar Landscape

The *terrain* or landscape of Giant's Causeway is unique - there are few places in the world that resemble it. This

area along the Antrim
Plateau is made up of
thousands of stone pillars.
The pillars are shaped like **polygons** (many-sided
figures), with four, five,
seven or eight sides. Some
pillars are over 35 feet tall.
These columns are packed



tightly next to one another as though a giant had driven thousands of stone spikes into the ground, side by side, forming a honeycomb pattern. The nearly flat tops of these pillars are just the right size to form steps. They cover over 170 acres. To get an idea how big that is, consider this – we can park 150 cars in a one-acre parking lot! The Giant's

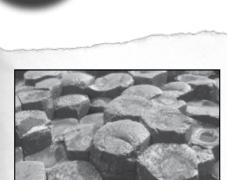
Causeway curves around the shoreline and rises up into a small mountain-like mound overlooking the North Channel of the Atlantic Ocean between Northern Ireland and Scotland. Then it drops off into the sea, like a staircase leading to the ocean depths. This knobby

pathway of stones is surrounded by towering cliffs made of the same kind of columns. Some people say they look like gigantic organ pipes. Northern Ireland's misty weather and the sounds of the sea help to give the Giant's Causeway a mysterious, otherworldly

atmosphere.

#### **How it Was Formed**

This unique landscape was created over 50 million years ago through **volcanic activity**. Over and over again hot liquid rock called **lava** streamed from volcanoes into the area. As the lava met



Layers of basalt form pillars

the sea it cooled, and as it cooled it contracted and hardened into volcanic rock called **basalt**. Laver upon layer of basalt make up the pillars. The pressure in between the basalt columns eventually shaped them into the honeycomb pattern of many polygons that make this landform so unusual. All of this took place during the Paleogene **Period**, a time in which the continents were moving and the planet was evolving into what we now recognize as our earth.

#### Legend of Finn MacCool

The people of Northern Ireland invented a story or *legend* to explain how this interesting terrain came to be. Early people knew little about the science of **geology** that would explain how the Causeway was formed. So, someone with a great imagination made up a story about a giant warrior named Fionn MacCumhaill (pronounced Finn MacCool) whose worst enemy was a Giant named The Red Man who lived across the sea in Scotland. Finn built the Causeway clear across the sea by hand so that he and the Red Man could meet for



a fight. As the fierce, gigantic Red Man crossed the Causeway, Finn MacCool caught sight of him and realized he might not be able to overpower him. So Finn had his wife wrap him up in a blanket and he jumped into a big cradle, pretending to be Finn's baby. When The Red Man saw how big Finn's "baby" was, he could only imagine the size of Finn himself! With that, The Red Man took off across the Causeway. back to Scotland, ripping up most of the rocky path behind him as he went. This is why, according to legend, the Causeway rocks seem to vanish into the sea.

If you have an interest in geology or Irish legends, or if you like traveling to and photographing unusual places, you might consider a trip to Northern Ireland to visit the Giant's Causeway. The panoramic views, fascinating volcanic rock formations, and the entertaining legend that gave this scenic locale its name make it an amazing destination.

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### Ice Cubes - Before the Age of Freezers

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These days we think nothing of reaching into the freezer, popping a handful of ice cubes into our glass and pouring ourselves a refreshing frosty beverage. Some of us even enjoy the convenience of an icemaker built right into the refrigerator door - just press the lever and a seemingly endless supply of perfectly formed ice cubes cascade into the glass. But it wasn't always that way. You might be surprised to learn that ice was actually used long before the days when electricity and refrigeration was available. In fact, people have been using ice to keep their foods fresh and their drinks cold for thousands of years. Let's explore how ice was used in

ancient times, and find out when and how it became an industry in the United States.



### Ice in the Olden Days

It's hard to imagine making, storing, and using ice before we had electric refrigerators and freezers. But historians tell us that ice has been used for thousands of years. Of course, this required people to be extremely creative and industrious. The ancient Egyptians, despite extremely hot daytime temperatures,

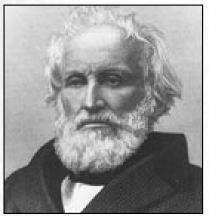
apparently took advantage of cold evenings (when the temperature dropped below freezing) to make ice. Shallow clay trays were filled with water and left outside on beds of straw or placed on the rooftops. In colder climates ice was cut from frozen lakes and stored. There are records that the Chinese did this before the year 1,000. Others such as the Hebrews, Greeks, and Romans collected as much snow as they could and piled it in deep pits. They'd cover it to keep it cool and when they wanted a cold drink they'd add a scoop of snow. The problem with any of these techniques was that as soon as the temperature rose snow and ice would melt.

# Stud

### Student Page

### The Business of Selling Ice

In the early 1800's a Massachusetts man named Frederic Tudor began the business of selling ice. He saw the thick ice that formed on the ponds and rivers in New England and decided to find a way to not only sell it, but to transport it to faraway places where ice was scarce. At that time large chunks of ice were cut with special saws and hauled out of the frigid waters. These would be sold to local businesses and to wealthy people who had ice houses. Ice houses were heavily insulated



Frederic Tudor, the Boston Ice King

with hay and wood chips and filled with big blocks of ice used to keep food fresh and for use in cold drinks. Frederic Tudor (later nick-named "The Boston Ice King") figured out a way to insulate ships with sawdust, wood shavings, and straw to protect ice from extreme heat. He'd stack the large ice blocks like a brick wall and surrounded them with insulation. In this way he was able to ship ice to many southern U.S. cities and as far away as Cuba, Martinique, South America, India, and England. Later, special horse-drawn plows were invented to make the process called ice harvesting easier. In 1834 another Massachusetts man named Jacob Perkins invented a way to produce artificial ice. Other innovations followed that made ice available year-round.

#### MASSACHUSETTS LOCATIONS WHERE TUDOR ICE WAS HARVESTED



- Walden Pond, Concord
- Spy Pond, Arlington
- Horn Pond, Woburn
- Sandy Pond, Ayer
- Fresh Pond, Cambridge
- Suntaug Lake, Lynnfield
- Wenham Lake, Wenham
- Haggett's Pond, Andover
- Doleful Pond, Stoneham

So, the next time you head to the freezer for a glassful of clinking ice cubes think about all of the work your ancestors went through to cool their drinks and keep their food fresh. Since the olden days of gathering snow and ice, to the beginnings of the ice harvesting business, to the convenience of ice cubes in our own kitchens, none of us want to live without the many benefits ice offers.

### Reference Page



#### STRATEGIC READING GUIDELINES

- 1. Circle the *title*. Ask students what the title reveals. (the *topic*) Remind them that the topic tells the reader what the entire piece will be about. **Model** this for students and have them do the same.
- 2. Number each paragraph for reference purposes.
- 3. Point out and underline the *headings*. Explain that the headings allow you to quickly skim and scan the piece and get a sense of the *main ideas* of the piece.
- 4. Fill in the summarizing framework, based solely on the title and headings.

TOPIC:	
Main Idea #1: _	
Main Idea #2: _	
Main Idea #3:	

- Discuss the way that identifying the topic and headings can set a purpose for learning. As readers they already have a good idea what they'll be reading about, which aids in comprehension.
- Discuss how a summary such as this might be an excellent way for an author to begin. (*Helps with organization and focus.*)
- 5. Next, in each paragraph, have students locate all **bold-faced** or *italicized* words. Explain that these are key vocabulary words that might be new to the reader. These keywords are usually either preceded or followed by a definition to aid in understanding. Point out that these specially marked words indicate some of the important *details* in the piece.
- 6. Point out the *photograph* and its *caption*. Ask students why both are important.



### Reference Page

7. Next, on the white board or chart paper, translate the information on the summarizing framework into an extended summary using the following sentence starters:

This expository text provides information about		
We'll discover	_, learn about,	
and become familiar with	·	
)r		
This informative piece discusses	The author explores	
, investigates	s , and	
reveals		

8. Finally, have students read the text independently. Discuss how examining the following text conventions: title, headings, bold or italicized key words, photographs and captions guide their reading – think about how much they've learned before they've even started reading! Also point out the way that the author organized the information made it more accessible to the reader.



Name:

#### YOU BE THE EDITOR!

Imagine you're the editor of a science magazine for kids. Your assistant sent you this article, but forgot some of the most important parts that will help the reader learn from the text. Your job is to provide the missing parts.

1.	Read the entire piece. What is the <b>topic</b> – in other words, what is the text <b>all about</b> ?
	Is this an expository or opinion piece? How do you know?

- 2. Based on the **topic**, create a **title** for this piece that will help the reader figure out what they'll be learning about. Write your title, in large print, across the top of the article.
- 3. Number each paragraph.
- 4. Circle the introduction.
- 5. Bracket the **body** of the piece.
- 6. Box the **conclusion**.
- 7. Read the first paragraph in the body of the piece (paragraph 2). It is missing a **heading** that tells the reader what the entire paragraph is about. Identify the main idea in order to create a heading and write it in the blank at the beginning of the paragraph. Do the same thing for paragraphs 3 and 4.
- 8. Read paragraph 1 again. The writer has forgotten to italicize or bold the *key* **vocabulary words**. Use the diagram in the middle of the page to help you identify these key vocabulary words. Underline these words to help the reader.
- 9. Insert **captions** beneath the diagram and the photo to explain what the reader is looking at.
- 10. Scan the remaining paragraphs and underline any key vocabulary words that should have appeared in bold or italicized print.
- 11. Fill in the summarizing framework, below.

TOPIC:	
Main Idea #1:	
Main Idea #2:	
Main Idea #3:	

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Name:

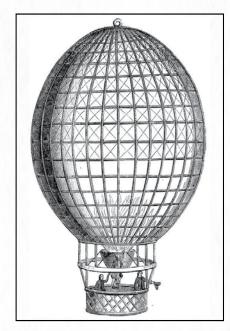
### **Title**

Can you name the very first successful flying machine? If you guessed the Wright brothers' airplane, you'd be wrong! In fact, the hot air balloon was invented long before the Wright brothers' first flight. It's fascinating to learn the history of hot air balloons, find out how modern balloons are constructed, and to explore the sport of hot air ballooning today.

Heading:

The first successful hot air balloon launching and flight took place in the year 1783 in Paris, France. But centuries before this people had experimented with unmanned balloon launches. Between the years 220 and 280 AD the Chinese launched balloons, not to carry passengers, but to signal soldiers in battle about

military maneuvers.
These early balloons,
called kongming or sky
lanterns were really
large paper lanterns with
a large candle of other



fire source suspended underneath it. Picture a paper bag suspended upside down with an apparatus to hold a flame beneath it. The flame heats the air inside the lantern causing it to rise. Two brothers, Joseph-Michel and Jacques-Etienne Montgolfier used this concept to create the first hot-air balloon. They

began with unmanned flights. Animals were next. Finally, in October of 1783, in France, the Montgolfier brothers sent up a tethered flight – the balloon attached to a long line secured on the ground - with Etienne aboard. A few weeks later two Frenchmen, named Pilatre de Rozier and Marquis Francois d'Arlandes,

became the first passengers in a free flight without tethers. Later, in 1794, the French used balloons for the first time for surveillance purposes during a military battle.

#### **Heading:**

Hot air balloons work on a simple principle – hot air is lighter than cold air and when the air inside the balloon is heated it will rise. Therefore, hot air balloons require a heat source to continually heat

the air inside the balloon. Nowadays balloonists use light-weight propane cylinders to heat the air inside the envelope of the balloon to help it rise. The propane flows through a set of hoses to a heating coil that ignites a

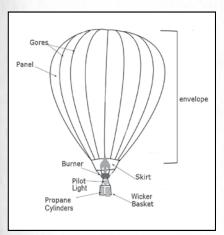


Diagram of hot air balloon

pilot light. The resulting flame heats the coils. The more heat, the higher the balloon will rise. Modern hot air balloons are made of nylon gores or panels that are reinforced with webbing. The nylon fabric is strong and lightweight. The skirt or base of the balloon is coated with fire-resistant chemical to prevent fires. Passengers stand in a larger wicker basket below the burners.

The wicker is light and flexible making landings more comfortable for travelers.

#### **Heading:**

These days those who have an interest in hot air balloons have many exciting opportunities. Numerous places host hot air balloon festivals that feature colorful displays of balloons of every color, shape and style. Spectators enjoy watching the amazing array of balloons, some in the image of cartoon characters, unusual shapes, designs, and colors. Every October thousands of people travel to Albuquerque, New Mexico for the Albuquerque International Balloon Fiesta. There, guests can take a ride, photograph hundreds of colorful balloons against the bright blue sky, or even watch a balloon race. Hundreds of other hot

air balloon festivals take place all over the world. In addition, many tourist destinations offer hot air balloon rides as a means of getting a bird's eye view of amazing vistas. You can float over the Grand Canyon, across the Amazon Rain Forest, or over the Valley of the Kings in Egypt to see the tombs of the Pharaohs.

Whether you're curious about their history, are interested in their construction, or simply long to take a ride, hot air balloons are fascinating. These modern-day floating "lanterns" appeal to just about everyone.



### Annotated Page



### **Title**

### Hot Air Balloons

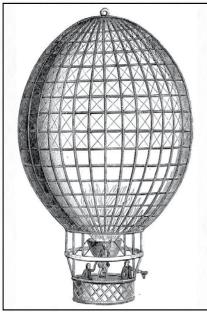
1 Can you name the very first successful flying machine? If you guessed the Wright brothers' airplane, you'd be wrong! In fact, the hot air balloon was invented long before the Wright brothers' first flight. It's fascinating to learn the history of hot air balloons, find out how modern balloons are constructed, and to explore the sport of hot air ballooning today.

#### **Heading:**

### <u>The</u> History

2 The first successful hot air balloon launching and flight took place in the year 1783 in Paris, France. But centuries before this people had experimented with unmanned balloon launches. Between the years 220 and 280 AD the Chinese launched balloons, not to carry passengers, but to signal soldiers in battle about

military maneuvers.
These early balloons,
called <u>kongming</u> or <u>sky</u>
<u>lanterns</u> were really
large paper lanterns with
a large candle of other



fire source suspended underneath it. Picture a paper bag suspended upside down with an apparatus to hold a flame beneath it. The flame heats the air inside the lantern causing it to rise. Two brothers, Joseph-Michel and Jacques-Etienne Montgolfier used this concept to create the first hot-air balloon. They

began with unmanned flights. Animals were next. Finally, in October of 1783, in France, the Montgolfier brothers sent up a tethered flight – the balloon attached to a long line secured on the ground - with Etienne aboard. A few weeks later two Frenchmen, named Pilatre de Rozier and Marquis François d'Arlandes. became the first passengers in a free flight without tethers. Later, in 1794, the French used balloons for the first time for surveillance purposes during a military battle.

#### **Heading:**

### How it Works

Hot air balloons work on a simple principle – hot air is lighter than cold air and when the air inside the balloon is heated it will rise. Therefore, hot air balloons require a heat source to continually heat



### **Annotated Page**

the air inside the balloon.

Nowadays balloonists
use light-weight propane
cylinders to heat the
air inside the envelope
of the balloon to help it
rise. The propane flows
through a set of hoses to a
heating coil that ignites a

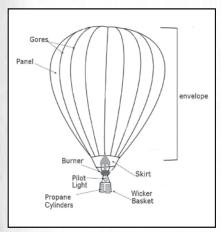


Diagram of hot air balloon

pilot light. The resulting flame heats the coils. The more heat, the higher the balloon will rise. Modern hot air balloons are made of nylon gores or panels that are reinforced with webbing. The nylon fabric is strong and lightweight. The skirt or base of the balloon is coated with fire-resistant chemical to prevent fires. Passengers stand in a larger wicker basket below the burners.

The wicker is light and flexible making landings more comfortable for travelers.

#### Heading: <u>Hot Aír</u> <u>Balloons</u>

Today

(4) These days those who have an interest in hot air balloons have many exciting opportunities. Numerous places host hot air balloon festivals that feature colorful displays of balloons of every color, shape and style. Spectators enjoy watching the amazing array of balloons, some in the image of cartoon characters, unusual shapes, designs, and colors. Every October thousands of people travel to Albuquerque, New Mexico for the Albuquerque International Balloon Fiesta. There, guests can take a ride, photograph hundreds of colorful balloons against the bright blue sky, or even watch a balloon race. Hundreds of other hot

air balloon festivals take place all over the world. In addition, many tourist destinations offer hot air balloon rides as a means of getting a bird's eye view of amazing vistas. You can float over the Grand Canyon, across the Amazon Rain Forest, or over the Valley of the Kings in Egypt to see the tombs of the Pharaohs.

Whether you're curious about their history, are interested in their construction, or simply long to take a ride, hot air balloons are fascinating. These modern-day floating "lanterns" appeal to just about everyone.



Modern-day hot air balloons take flight

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### **Masters of Disguise**

The wild and wonderful world of nature is a dangerous place. Every minute of every day wild creatures act as hunter or the hunted. Every animal, bird, and

insect uses many tactics to stay alive and do their best not to become another beast's dinner. One way creatures protect themselves is through camouflage.

Camouflage

helps wildlife

blend in with the environment. Let's discover how a tiger's stripes help it survive, explore how other creatures are experts at hiding, and others who pretend to be something they're not.

#### One of a Kind!

Do you ever wonder why a tiger has stripes? Each tiger has a unique set of stripes in shades of brown, orange, gold, white, or



Tiger Taking Down an Antelope.

tan. In fact, no two tigers are exactly the same. Besides being beautiful, the tiger's stripes help it blend in with tall grasses and other vegetation in the grasslands and jungles where they live. Their furry coats as well as their skin beneath are marked with this *camouflage*. The stripes are examples of what scientists call *disruptive coloration*.

Stripes or spots tend

to blur the outline of the creature, making them hard to see. This allows them to be stealthy hunters and to disappear into the underbrush when danger arises. Tiger stripes are so effective

that companies have manufactured fabric to resemble tiger skins. This tiger striped fabric is used to make pants and shirts for hunters who hope to become as successful in the hunt as the mighty tiger.



#### Going Undercover

Other creatures can protect themselves through what is called concealing coloration. When a toad nestles into a pile of dried leaves the bumpy texture and earthy color of its skin allow it to perfectly blend into the background. The white fur of a snowshoe hare or pale feathers of a snowy owl against a field of snow makes it difficult for predators to distinguish them. Polar bears are another example of this. It makes sense that in wooded or desert habitats many creatures

will be brown or gray in color. Tree frogs and exotic insects that dwell in the rain forests are often – you guessed it! Green! Even fish use this trick – the flat flounder fish with its brownish speckled skin seems to disappear against the sandy ocean floor.

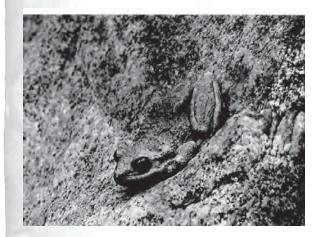
### **Great Pretenders**

Another way that creatures camouflage themselves is through the use of disguise. This means that they fool their predators by appearing like something else that wouldn't be appetizing.

For example, the leaf katydid looks surprisingly like a leaf.
When perched on a tree or bush it's nearly impossible to distinguish it from the vegetation.

The leaf-tailed gecko is another example of a creature that positions itself on a branch and creates the illusion of being just another brown, curled leaf. The many varieties of the insect called walking sticks (which can be as small as an inch long, or as long as a foot or more) with their thin, branch-like body and numerous angled twiglike legs appear to be just another part of the tree. Easy to see how a hungry predator could pass them by.

If you are a wildlife enthusiast or a nature lover you'll need to train yourself to recognize these Masters of Disguise. Whether they use disruptive coloration, concealing coloration, or disguise you can train yourself to pick them out of their habitat. Without a doubt, camouflage is a little miracle of the natural world.



### Student Reference Page

#### **EXPOSITORY PILLAR**

#### INTRODUCTION

Lead/Topic Sentence

Main Idea #1\_\_\_\_\_

Detail Detail

Detail Detail

Main Idea #2\_\_\_\_\_

Detail Detail

Detail Detail

Main Idea #3\_\_\_\_

Detail Detail

Detail

### **Conclusion**

**Expository/Informative Summarizing Framework** 

TOPIC:

MAIN IDEA #1: \_\_\_\_\_

MAIN IDEA #2:

MAIN IDEA #3: \_\_\_\_\_

### Student Reference Page



#### **OPINION PILLAR**

### INTRODUCTION

Lead/Opinion Statement

Main Reason #1\_\_\_\_\_

Detail	Detail
Detail	Detail

Main Reason #2\_\_\_\_\_

Detail	Detail
Detail	Detail

Main Reason #3\_\_\_\_\_

Detail	Detail
Detail	Detail

### **Conclusion**

Creative Restatements of Main Reasons

#### **Opinion Summarizing Framework**

TOPIC:

MAIN REASON #1: \_\_\_\_\_

MAIN REASON #2:

MAIN REASON #3: