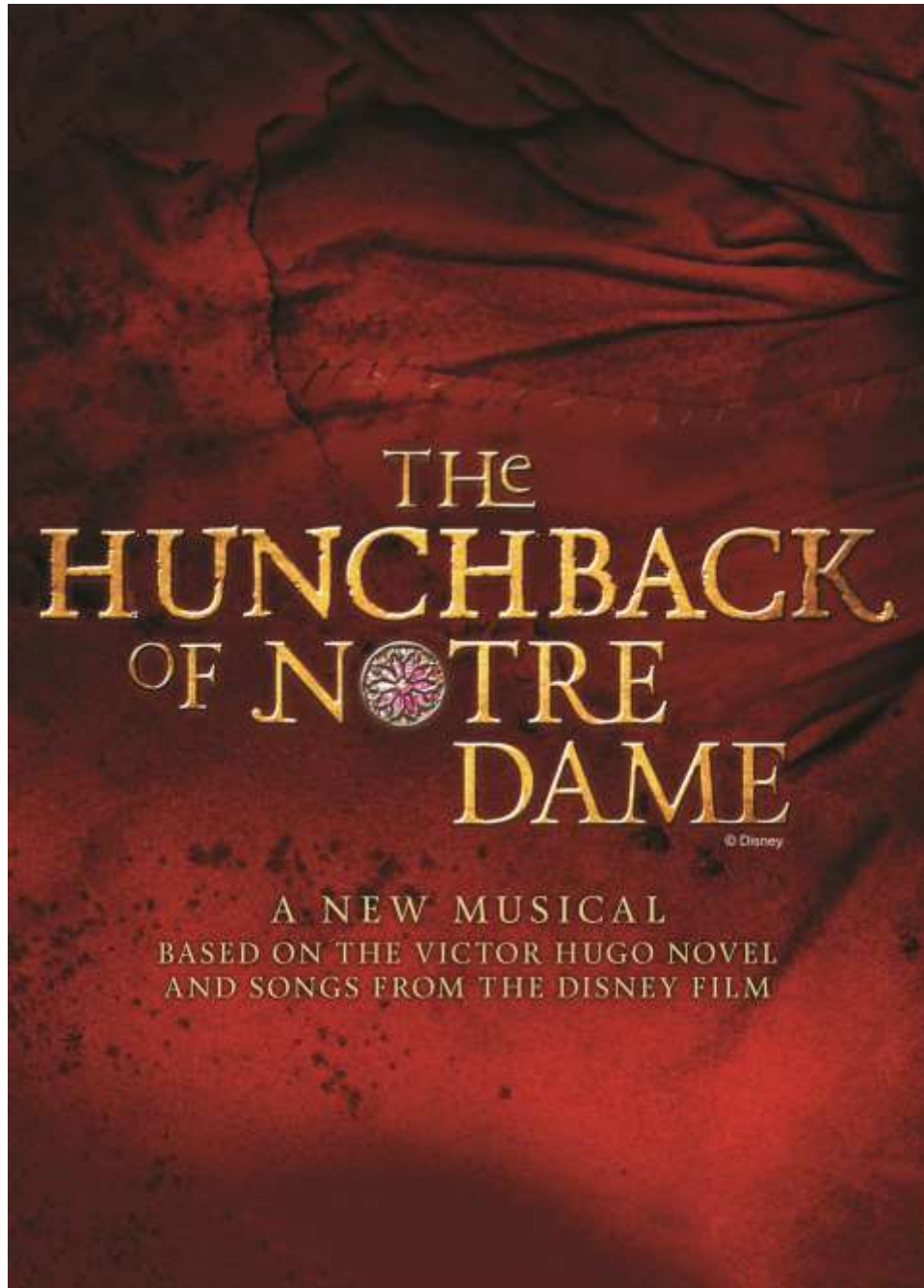


The Jefferson Performing Arts Society

Presents



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Table of Contents

Teacher's Notes.....	3
Standards and Benchmarks.....	7
Background.....	8
Character Traits: What Makes a Man	51
The Towers of Notre Dame.....	70
Stained Glass: Telling Stories in Pieces.....	98
Describe Your Favorite Place.....	126
Additional Resources.....	143



Teacher's Notes

The Hunchback of Notre Dame

Music by Alan Menken

Lyrics by Stephen Schwartz

Book by Peter Parnell

Based on the Victor Hugo novel and songs from the Disney film





From the Academy Award-winning team comes a lushly scored retelling of Victor Hugo's epic story of love, acceptance and what it means to be a hero. The musical begins as the bells of Notre Dame sound through the famed cathedral in fifteenth-century Paris. Quasimodo, the deformed bell-ringer who longs to be "Out There," observes all of Paris reveling in the Feast of Fools. Held captive by his devious caretaker, the archdeacon Dom Claude Frollo, he escapes for the day and joins the boisterous crowd, only to be treated cruelly by all but the beautiful gypsy, Esmeralda. Quasimodo isn't the only one captivated by her free spirit, though – the handsome Captain Phoebus and Frollo are equally enthralled. As the three vie for her attention, Frollo embarks on a mission to destroy the gypsies – and it's up to Quasimodo to save them all. A sweeping score and powerful story make *The Hunchback of Notre Dame* an instant classic. Audiences will be swept away by the magic of this truly unforgettable musical.

The musical **The Hunchback of Notre Dame** is a retelling of Victor Hugo's epic story of love. In both Victor Hugo's novel and the musical adapted from the novel, characters

form opinions about other characters based on appearance. As an example, because Quasimodo has a deformity, some characters view him as a monster or evil; the name Quasimodo means “half formed.” As another example, because the gypsies are wanderers and street performers, some other characters view them as vermin.

In **Character Traits: What Makes a Man** students will discuss the definitions of character (both the persona in a novel or musical and the attributes or personal qualities of the persona,) brain storm about character traits, analyze images of two characters, Quasimodo the bell ringer and Frollo Archdeacon of Notre Dame Cathedral, share opinions about these characters’ personal traits (based only on the character’s physical appearance,) review a description of both characters from the musical and investigate how these descriptions compare to opinions based only on appearance.

The Towers of Notre Dame familiarizes students with the physical place that inspired Victor Hugo, Disney animators and Set Designer Adam Koch: Notre Dame Cathedral in Paris, France. Growing up in Paris, Victor Hugo fell in love with gothic architecture and with Notre Dame in particular. The first three chapters of his novel **The Hunchback of Notre Dame** are devoted to describing gothic architecture of his time in great detail. When Disney was adapting Hugo’s novel into an animated movie, Disney animators traveled to Paris to research the building design of Notre Dame in order to develop imagery for the film. Notre Dame additionally inspired Adam Koch, Set Designer for the Ogunquit Playhouse production of **The Hunchback of Notre Dame**. JPAS will be using the Ogunquit Playhouse set for our Production of **The Hunchback of Notre Dame**. Students will have the opportunity to use Notre Dame as inspiration while they work in teams, architect and builder, to construct their own tower of Notre Dame. To do this, students will examine Notre Dame Cathedral towers and gargoyles, read an excerpt from Victor Hugo’s novel, read an interview with **The Hunchback of Notre Dame** Set Designer Adam Koch, review concepts in multiplication, division, area and perimeter and work collaboratively to build a small replica of the top of one of the towers.

In preschool, students learn about shapes. They learn how to identify them by appearance. As an example, a shape made of straight lines with four equal sides is a square,  a shape made of three straight lines is a triangle,  a shape made of straight lines where the sides opposite each other (parallel) are equal is a rectangle  and so forth. Rose windows, like the one in Notre Dame Cathedral, are based on a shape, the circle . In this lesson, we will expand on students’ understanding of shapes, specifically circles, and measurement by exploring them through the lens of an actual place, Notre Dame in Paris, and investigating the many ways this place was used as inspiration for storytelling, local architecture and set designs.

Stained Glass: Telling Stories in Pieces is another lesson that familiarizes students with the physical place that inspired Victor Hugo, Disney animators and Set Designer Adam Koch: Notre Dame Cathedral in Paris, France. Students will investigate the rose

window of Notre Dame, stained glass and rose windows in local New Orleans architecture and use these investigations to create their own rose windows. To do this, students will learn about stained glass and the history of the rose window in architecture, examine the rose window of Notre Dame, read an excerpt from Victor Hugo's novel, read an interview with **The Hunchback of Notre Dame** Set Designer Adam Koch, learn about French influences in local New Orleans stained glass, view images of local New Orleans architecture that includes rose windows, review information on symmetry, radius, circumference, diameter and sectors, and use all this information to create their own rose window.

Describe Your Favorite Place guides students as they explore how the power of personal voice in writing can be used to shape public opinion. To do this, students investigate Victor Hugo's novel, the place that inspired it (Notre Dame Cathedral) and have the opportunity to think about their favorite place. Students will read articles about Victor Hugo's inspiration, read an excerpt from Victor Hugo's novel **The Hunchback of Notre Dame**, review how to write good descriptions and then create their own writing about a favorite place of theirs.

PREFACE.

A few years ago, while visiting or, rather, rummaging about Notre-Dame, the author of this book found, in an obscure nook of one of the towers, the following word, engraved by hand upon the wall:—

ANANKE.

These Greek capitals, black with age, and quite deeply graven in the stone, with I know not what signs peculiar to Gothic caligraphy imprinted upon their forms and upon their attitudes, as though with the purpose of revealing that it had been a hand of the Middle Ages which had inscribed them there, and especially the fatal and melancholy meaning contained in them, struck the author deeply.

He questioned himself; he sought to divine who could have been that soul in torment which had not been willing to quit this world without leaving this stigma of crime or unhappiness upon the brow of the ancient church.

Afterwards, the wall was whitewashed or scraped down, I know not which, and the inscription disappeared. For it is thus that people have been in the habit of proceeding with the marvellous churches of the Middle Ages for the last two hundred years. Mutilations come to them from every quarter, from within as well as from without. The priest whitewashes them, the archdeacon scrapes them down; then the populace arrives and demolishes them.

Thus, with the exception of the fragile memory which the author of this book here consecrates to it, there remains to-day nothing whatever of the mysterious word engraved within the gloomy tower of Notre-Dame,—nothing of the destiny which it so sadly summed up. The man who wrote that word upon the wall disappeared from the

midst of the generations of man many centuries ago; the word, in its turn, has been effaced from the wall of the church; the church will, perhaps, itself soon disappear from the face of the earth.

It is upon this word that this book is founded.

March, 1831. Victor Hugo



Louisiana Educational Content Standards and Benchmarks

The arts facilitate interconnection. They provide tangible, concrete opportunities for students and teachers to explore academic concepts. Academic concepts are strengthened when learning integrates academic subjects like English language arts with arts. A system of Grade Level Expectations and Standards and Benchmarks is replacing the Common Core standards used since 2010 to measure student achievement. Here is some background information on Louisiana Common Core:

LOUISIANA STATE STANDARDS

In March, 2016 The Louisiana Board of Elementary and Secondary Education (BESE) approved the Louisiana State Student Standards in English language arts and mathematics. This action by BESE replaces the Common Core State Standards with unique state standards developed through a collaborative statewide process which included extensive public input and the work of Louisiana educator-led committees. Academic standards define the knowledge and skills that students are expected to learn in a subject in each grade. Please visit these sites for more information:

<http://bese.louisiana.gov/documents-resources/newsroom/2016/03/04/bese-approves-louisiana-student-standards-adopts-2016-17-education-funding-formula>

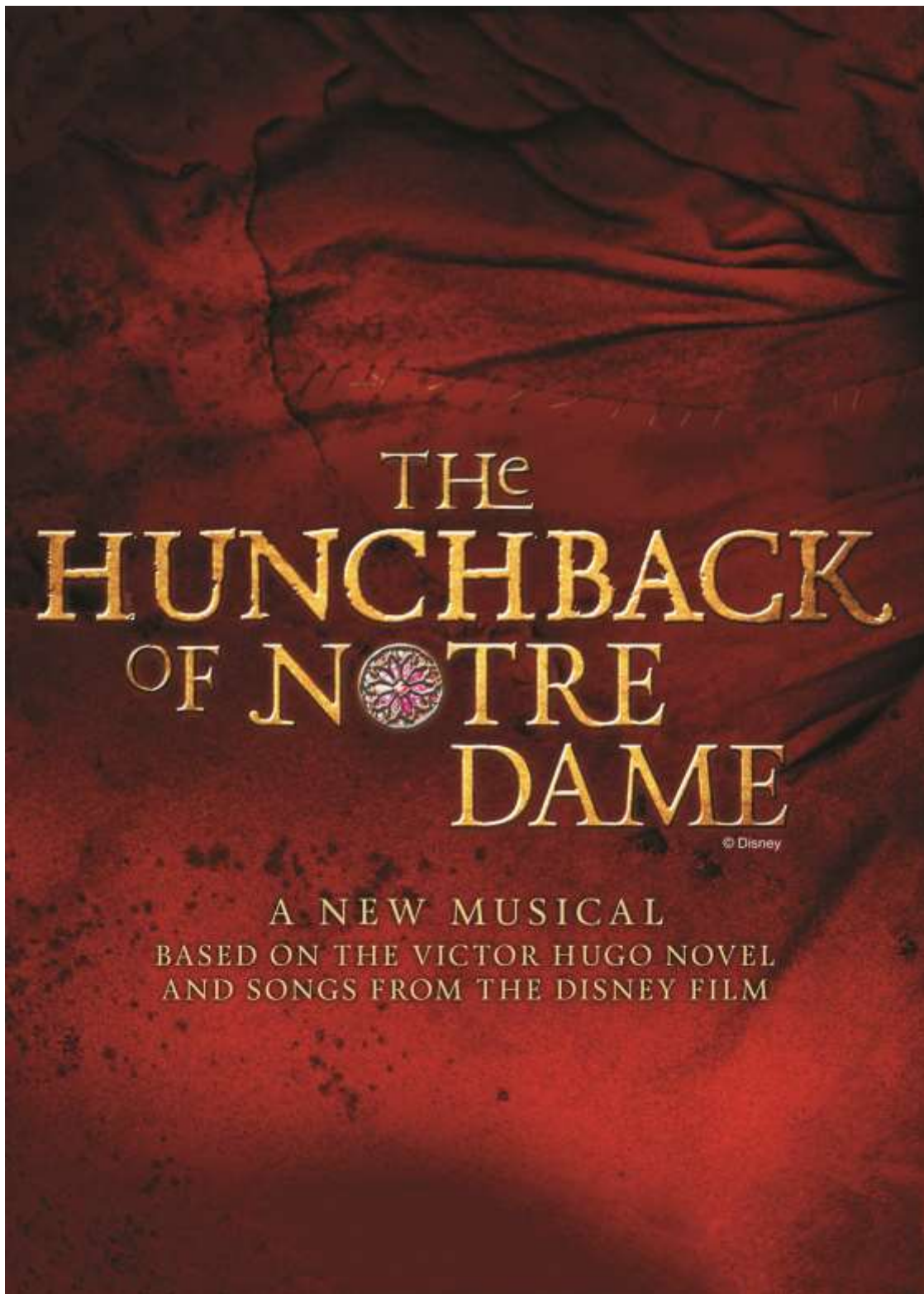
<http://www.louisianabelieves.com/academics/louisiana-student-standards-review>

All Louisiana State Standards were retrieved from:

<http://www.louisianabelieves.com/docs/default-source/teacher-toolbox-resources/k-12-ela-standards.pdf?sfvrsn=36>

<https://www.louisianabelieves.com/docs/default-source/teacher-toolbox-resources/louisiana-student-standards-for-k-12-math.pdf?sfvrsn=52>

Background



The Hunchback of Notre Dame

NOVEL BY HUGO

WRITTEN BY:

- [Karl Lampl](#)

Alternative Title: “Notre-Dame de Paris”

The Hunchback of Notre Dame, historical [novel](#) by [Victor Hugo](#), published in French as *Notre-Dame de Paris* in 1831.



The Hunchback of Notre Dame Charles Laughton in *The Hunchback of Notre Dame* (1939), directed by William Dieterle. © 1939 RKO Radio Pictures Inc.

SUMMARY: The [novel](#) is set in 15th-century [Paris](#) and powerfully evokes medieval life in the city during the reign of [Louis XI](#). [Quasimodo](#) is the hunchbacked horribly deformed bell ringer at the [cathedral of Notre-Dame](#). Once beaten and pilloried by an angry mob, he has fallen in love with the

beautiful gypsy Esmeralda, who took pity on him during this ordeal. When the scheming archdeacon Frollo, who is also obsessed with Esmeralda, discovers that she favours Captain Phoebus, he stabs the captain, and Esmeralda is accused of the crime. Quasimodo attempts to shelter Esmeralda in the cathedral, but she eventually hangs; in his grief and despair, Quasimodo throws Frollo from the cathedral tower. Later, two skeletons are found in Esmeralda's tomb—that of a hunchback embracing that of a woman.

DETAIL: Victor Hugo's *The Hunchback of Notre Dame* is a historical novel in the tradition of Scott's *Ivanhoe*. It presents a vivid tableau of life in fifteenth-century Paris, a city teeming with noble festivities, grotesque revelries, mob uprisings, and public executions, all of which take place around Notre-Dame. Hugo devotes two chapters to the description of the Gothic church, bringing the reader into the very soul of Notre Dame. From the dizzying heights of its stony gaze, he offers the reader a subjective view of Paris. The word *anankhe* ("fate"), etched on one of the walls, reveals the driving force of the gothic plot.

Quasimodo's fate is sealed when he is abandoned at birth by his mother on the steps of Notre Dame. Adopted by the Archdeacon Claude Frollo, Quasimodo becomes bell ringer of the tower, hiding his grotesque, hunchbacked figure away from prying Parisian eyes. Frollo is consumed by forbidden lust for the beautiful gypsy Esmeralda, who dances on the square below the cathedral. He convinces Quasimodo to kidnap her, but his attempts are foiled by the captain of the King's Archers, Phoebus, who also falls for Esmeralda. Quasimodo is imprisoned for the crime, and is abused and humiliated by his captors. After a particularly brutal flogging, he is tended to by Esmeralda, who gives him water. From this point on, Quasimodo is hopelessly devoted to her. With all three characters under her spell, a dramatic tale of love and deceit ensues. The love-obsessed Frollo spies on Phoebus and Esmeralda, stabbing the former in a jealous rage. Esmeralda is arrested and condemned to death for his murder, and, despite a brave rescue attempt by Quasimodo, is later hanged. Quasimodo, seeing Esmeralda hanging lifeless from the gallows, cries out, "There is all I loved." The theme of redemption through love struck a universal chord.

Karl Lampl

RETRIEVED FROM: <https://www.britannica.com/topic/The-Hunchback-of-Notre-Dame>

Visiting the Cathédrale Notre-Dame de Paris: Attractions, Tips & Tours

Written by Lisa Alexander



Cathédrale Notre-Dame de Paris

The Cathédrale Notre-Dame makes a grand first impression. From its splendid location on the Ile-de-la-Cité, the cathedral's towers, spire, and flying buttresses seem to magically spring forth from the Seine River and soar ambitiously towards heaven. The 70-meter-high cathedral was, for centuries, the tallest building in [Paris](#). A masterpiece of French Gothic architecture, the Notre-Dame is one of the greatest monuments of the Middle Ages. Although it may look archaic when compared with modern landmarks like the [Eiffel Tower](#), the cathedral features a revolutionary medieval design. The innovative Gothic technology of "flying buttresses" (support beams) were used to reinforce the massive structure.

The Notre-Dame Cathedral was founded in 1163 by King Louis IX (Saint Louis) and Bishop Maurice de Sully, who wanted to build a church that rivaled the

Basilique Saint-Denis. It took almost 200 years and countless architects, carpenters, and stonecutters to construct the Notre-Dame Cathedral. The result is a perfection of Gothic design. Visitors marvel over the fabulously detailed facade and are awestruck by the enormous nave. The serene sanctuary is a soul-inspiring space. Ethereal light filters through magnificent stained-glass windows, and in the evening, the illuminated votive candles add to the spiritual ambience.

Revolutionary Gothic Architecture - Flying Buttresses



Revolutionary Gothic Architecture - Flying Buttresses

In the 13th century, flying buttresses were a revolutionary new technology of Gothic architecture, an innovative solution to provide reinforcement for heavy cathedral walls. The flying buttresses support the structure and prevent it from collapsing despite its enormous weight. On the Notre-Dame Cathedral, the flying buttresses are seen on the east facade (rear) of the building. These 15-meter arched pillars resemble long, spindly spider legs bent at the knee, surrounding the building like scaffolding.

Notre-Dame was one of the first medieval cathedrals built with this special architectural technique. The cathedral was not originally designed with flying buttresses when it was constructed in the 12th century. However, stress fractures in the walls called for an architectural solution in the late 13th century. The architect Jean Ravy designed the flying buttresses to support the building from the outside, without obstructing any of the stained-glass windows. Although they are a purely functional structural feature and were not designed to beautify the building, they have a certain harmonious quality. Take a moment to admire the flying buttresses from the viewpoint of the Place Jean-XXIII behind the cathedral.

The West Facade - Kings and Christian Icons



The West Facade - Kings and Christian Icons

The monumental west front of Notre-Dame Cathedral reveals the painstaking work of medieval stone cutters, who crafted finely detailed sculptures in the High Gothic style around 1210 to 1230. After admiring the elaborate overall design with its five horizontal sections, take time to appreciate the sculptures. The long row of figures above the doorways is the **Gallery of Kings**, which includes 28 figures of French Kings, from Childebert I (511-588) to Philippe Auguste (1180-1223). The heads were struck off during the Revolution and are now on display in the **Musée de Cluny**.

Visitors are awed by an entourage of biblical figures in the portals above the doorways. The **Portail de Sainte-Anne** above the right-hand doorway depicts the story of the Virgin's parents, the Annunciation, and Nativity of Christ. The **Portail du Jugement Dernier** above the central doorway illustrates Christ the Judge and Archangel Michael directing the righteous to heaven and the damned to hell. Above the left-hand doorway, the **Portail de la Vierge** shows the Assumption of the Virgin and Ark of the Covenant. The archivolts feature angels, patriarchs, and prophets. On the side walls are apostles and the figures of Saint Dionysius (Denis), John the Baptist, Saint Stephen, and Saint Genevieve.

Cathedral Towers



Cathedral Towers

The cathedral's twin towers are open to the public for visits. The entrance (with admission fee) to the towers is to the left of the front doorways on the Rue du Cloître Notre-Dame, and then there's a climb of 387 steps. Admission allows visitors to see the two towers and the balcony of gargoyles. The famous **Bell Tower** that Victor Hugo's Quasimodo sounded is the North Tower. Visitors can see the cathedral's largest bell, the **Emmanuel Bell**, up close.

Tourists are ultimately rewarded by the spectacular views from the top, one of the great experiences of a visit to Paris. Unlike other famous Paris viewpoints

(such as the Eiffel Tower and the Sacré-Coeur), the 70-meter-high towers of Notre-Dame offer a close-up view of the historic center of the city. From this location, the panoramic outlook includes Paris' most famous neighborhoods and monuments: the Ile de la Cité, the Hôtel de Ville, the Louvre, the Sorbonne, the Panthéon, and the Ile Saint-Louis. The view even extends to the modern part of Paris with the skyscrapers of La Défense in the distance. From the towers, there is also an interesting perspective of the cathedral's roof, spire, and the gargoyles.

Gargoyles

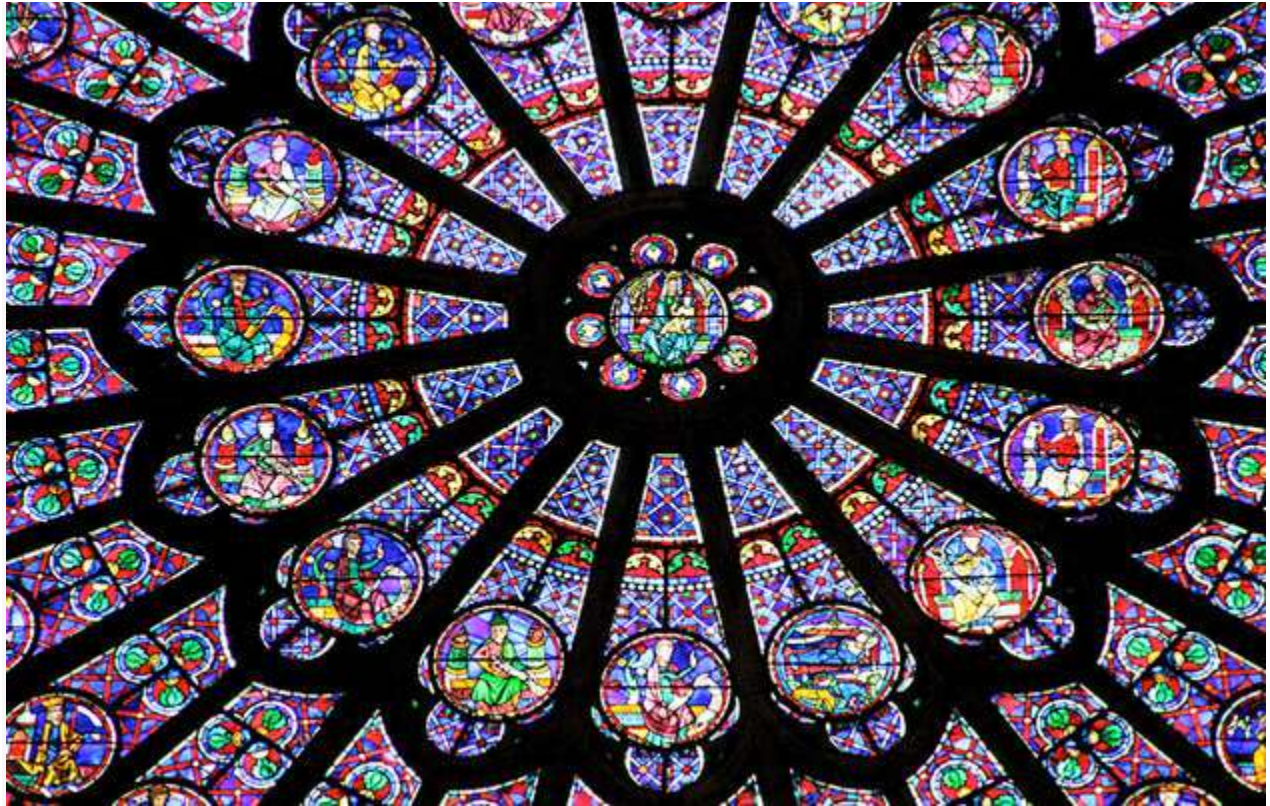


Gargoyles

Gargoyles are fearsome sculptures typically found on medieval cathedrals, often designed for use as rain water spouts. Some of the grotesque figures had no functional purpose at all, and many believe that they were created to scare off evil spirits. Several of the gargoyles (called "chimères" in French) on Paris' Notre-Dame Cathedral served as rain water drains. During rainy weather, the monsters act like funnels, their mouths become the spouts of mini-waterfalls. Other Notre-Dame gargoyles are merely decorative. There is a melange of figures, from frightening devilish characters to a graceful stork and charming winged creatures. To see these amazing personages up close, go up the Cathedral Towers (entrance fee) and wander around the **Galerie des Chimères**, the balcony of

gargoyles between the twin towers. The entrance to the towers is to the left of Notre-Dame's front doorways on the Rue du Cloître Notre-Dame. Seeing these up close is one of the most delightful things to do in Paris.

Stained-Glass Windows



Stained-Glass Windows [MJM Photographie](#) / photo modified

Notre-Dame has a special celestial aura thanks to its magnificent stained-glass windows. The colorful windows filter jewel-toned light into the otherwise somber space. Many of the windows date to the 13th century and their intricacy exemplifies the finest medieval craftsmanship. The most glorious are the three stunning Rose Windows, considered among the greatest masterpieces of Christian art. The **West Front Rose Window** (created in 1255) represents the story of the Virgin Mary in 80 spectacular Old Testament scenes. The **South Transept Rose Window** (created in 1260) depicts Jesus Christ surrounded by apostles, martyrs, and wise virgins as well as the story of Saint Matthew. More than 12 meters in diameter, the South Rose Window includes 84 panes of exquisitely detailed and beautifully rendered scenes.

Also take time to admire the neo-Gothic **Cloister Windows** on the south side of the choir. Created in the 19th century, this gorgeous series of 18 windows illustrates the Legend of Saint Genevieve, who was the patron saint of Paris. The

cathedral also features contemporary stained-glass windows created by **Malraux** in the 1960s.

The Serene Sanctuary



The Serene Sanctuary

The sheer immensity of the sanctuary, with its overwhelming sense of spaciousness, leaves many visitors awestruck. The inspiring high-vaulted nave reaches 35 meters and is 130 meters in length (longer than a football field). Typical of Gothic architecture, the nave has five aisles with chapels along the sides and a choir behind the transept. The choir features ornately carved wooden stalls and capitals decorated with Romanesque acanthus and leaf ornamentation. In the nave, 75 massive round pillars give a sense of the grandiose space that offers seating for 9,000 people. Because of its size and importance, throughout its long history Notre-Dame has been the setting of official occasions, including Napoleon's coronation as Emperor.

Be sure to take a look at the **Les Grand Mays** series of paintings by Charles le Brun, Sebastien Bourdon, Jacques Blanchard, and other artists. Displayed in the chapels around the nave, these 17th-century paintings were created to honor the Virgin Mary and feature themes from Saint Luke's Acts of the Apostles. Originally, there were 76 painting in this series. The cathedral now possesses 13 of these paintings; the rest are at the [Louvre](#) and other museums in France.

Another masterpiece is the 14th-century **Notre-Dame de Paris** statue of the Virgin and Child.

Treasury of Reliquaries



Treasury of Reliquaries [LenDog64](#) / photo modified

The Treasury is located in the cathedral's Sacristy, with an entrance (admission fee) in the choir on the right. There are many precious relics, including one of Christ's nails and a fragment of the True Cross. Many of the liturgical objects are made of gold and exemplify exquisite craftsmanship. The most precious item in the Treasury is the gilded bronze and gemstone reliquary designed by Viollet-le-Duc in 1862. This shrine holds the Holy Crown of Thorns, which has been an object of devotion for more than 1,600 years since it was removed from the Basilica of Zion in Jerusalem. The **Shrine for the Crown of Thorns** is venerated at Notre-Dame Cathedral the first Friday of the month, every Friday during Lent, and on Good Friday. Also on display in the Treasury are valuable medieval manuscripts, crosses, chalices, and Napoleon's coronation robes. The treasury is open daily Monday-Saturday and Sunday afternoons.

Crypte Archéologique (Archaeological Museum)

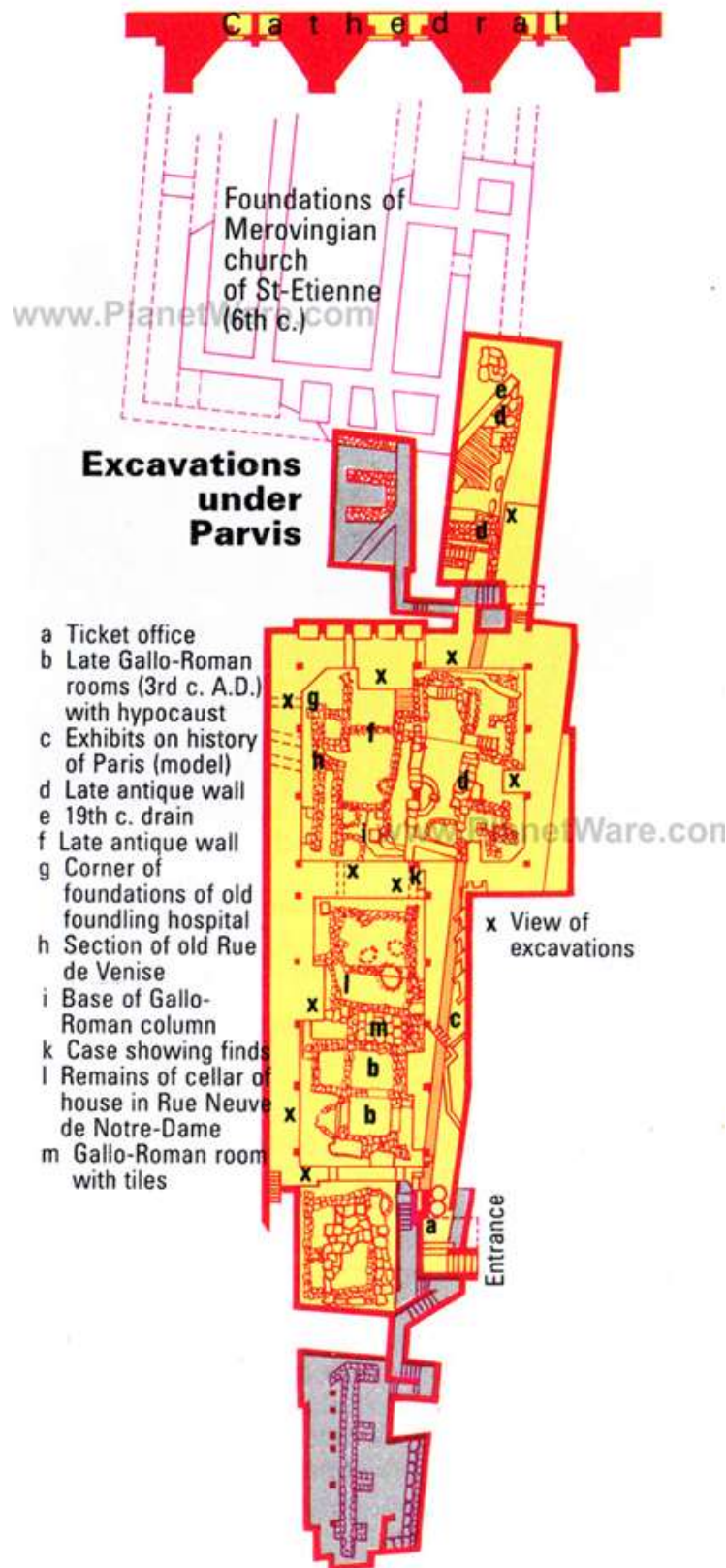


Crypte Archéologique (Archaeological Museum) [Jean-Pierre Dalbra](#) / photo modified

Located underneath the cathedral, the crypt now houses an archaeological museum. The below-ground museum is an actual archaeological excavation site, where the foundations of Roman-era structures were found. During Roman times, the city was known as Lutetium. By presenting ancient ruins, archaeological findings, maps, drawings, and historical information, the museum tells the story of the city from antiquity through the medieval era. To access the museum (there is an entrance fee), take the stairs opposite the cathedral's facade.

Address: Address: 7 parvis Notre-Dame, Place Jean-Paul II, Paris (Métro et RER : Cité ou Saint-Michel)

Official site: <http://www.crypte.paris.fr/en/homepage>



Excavations under Parvis Map

Mass & Concerts

Attending a mass at the Notre-Dame Cathedral is an inspiring spiritual experience for many visitors. Tourists will get an authentic feel for the mystical ambience of Notre-Dame. During mass, the beautiful music and myriad flickering prayer candles transform the sanctuary into an ethereal space. **Mass** is celebrated Monday through Saturday at 8am, 9am, 12 noon, and 6:15pm (6:30pm on Saturday). Another chance to connect with Notre-Dame's community of faith is by attending **Vespers**, which are held daily at 5:45pm. Sunday mass is held at 8:30am, 9:30am, 10am (Gregorian mass), 11:30am, 12:45pm, and 6:30pm.

Notre-Dame also hosts regular **organ recitals** and other **holy music** and **classical music concerts** such as Gregorian chants and Mozart's Requiem. The cathedral's renowned Cavaillé-Coll organ is one of the largest and most powerful in France, with 8,500 pipes, offering truly sensational sound quality. For a schedule of concerts, consult the Notre-Dame website's calendar of events. Another interesting way to discover Notre-Dame is by enjoying the cathedral's **audiovisual show**. Every Saturday and Sunday at 9:15pm, the cathedral offers a breathtaking show of images projected onto a screen of tulle, accompanied by music. Entrance is free.

Best Views of Notre-Dame Cathedral



Best Views of Notre-Dame Cathedral

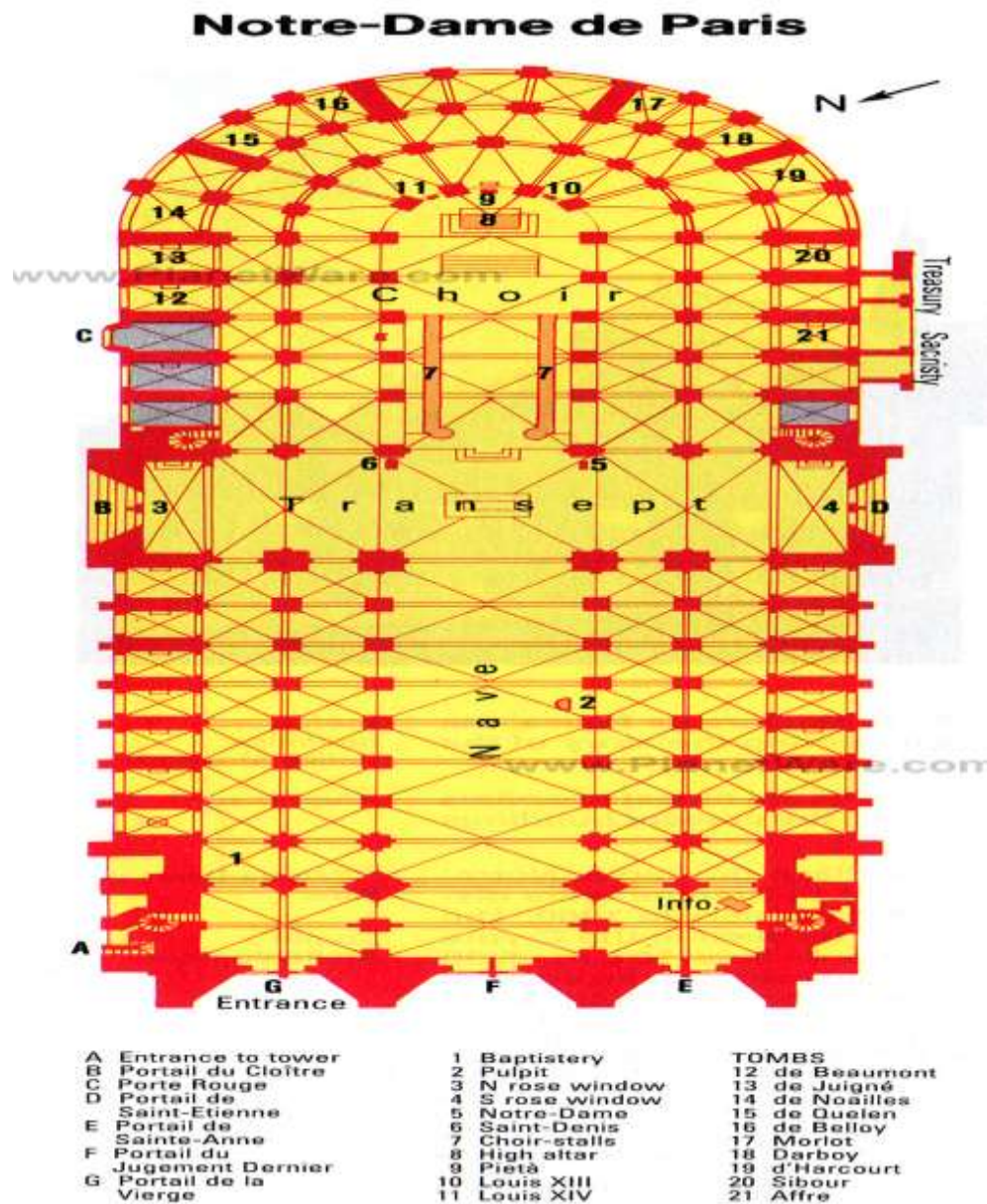
Share:

One of the best views of this popular tourist attraction is found on the Ile Saint-Louis around the **Pont Saint-Louis**. This area offers a lovely view of the towers and flying buttresses at the cathedral's east end (rear). Another fantastic way to approach the back of the cathedral is from the **Quai de la Tournelle** reached via Boulevard Saint-Germain and Rue des Bernardins in the Latin Quarter. Continue across the **Pont de l'Archevêché**, where the **Place Jean-XXIII** is located. This pleasant garden is the perfect spot to enjoy a quiet moment away from the crowds and admire the flying buttresses up close.

The finest view of Notre-Dame's front is from the **Petit Pont**, a small bridge with a pedestrian sidewalk. Arrive here from Saint-Michel métro station, walk along the Quai Saint-Michel, and cross the Petit Pont bridge to the Rue de la Cité. Another possibility is to arrive from Maubert-Mutualité station, walk down the Quai Montebello via Rue Frédéric Sauton, and cross the **Pont au Double**, an elegant pedestrian bridge that connects to the Rue d'Arcole, which runs into the Place du Parvis Notre-Dame, the esplanade in front of the cathedral's facade. Another fabulous perspective for pictures is from the **Quai du Marché Neuf** along the Seine River. To see Notre-Dame from the Seine, take a Batobus boat ride or a Bateaux-Mouches lunch or dinner cruise departing from Pont de l'Alma near the Eiffel Tower.

Address

- Cathédrale Notre-Dame de Paris, 6 Parvis Notre-Dame - Place Jean-Paul II, Paris
- <http://www.notredamedeparis.fr/-English->



Notre-Dame de Paris Map

RETRIEVED FROM: <http://www.planetware.com/paris/notre-dame-de-paris-f-nd.htm>

Image NOTRE DAME DE PARIS SROUND 1840, BEFORE
THE RECONSTRUCTION / VINCENT CHEVALIER, [WIKIMEDIA
COMMONS](#), PUBLIC DOMAIN

DIRE STATE AND VICTOR HUGO

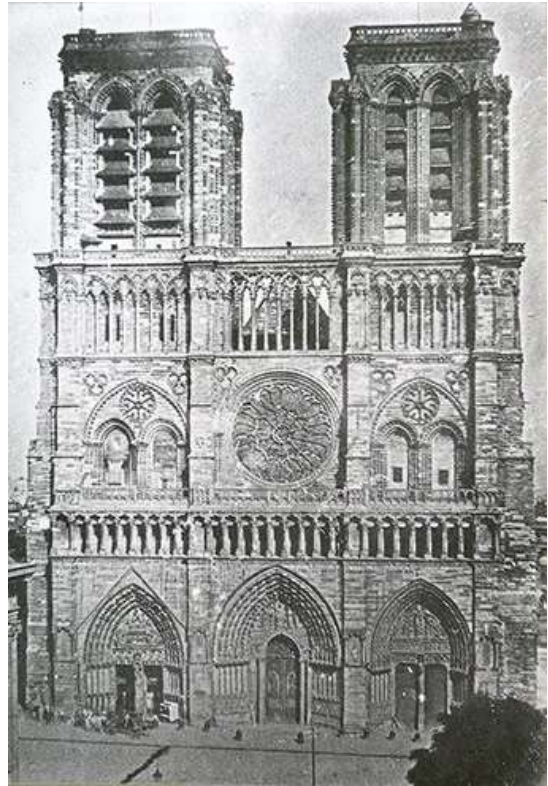
By the 1820s - 1830s the beautiful cathedral was close to collapse and city officials considered to remove it.

The successful novelist **Victor Hugo** wrote a novel "Notre-Dame de Paris" which was specially dedicated to this building. Remember - you may be were bored by reading the first hundred pages describing the cathedral in every detail - and only then started the tale about the Quasimodo and Esmeralda! Well - it was worth your time and time of many generations to come because it did wonders!

This popular novel was one of the factors which made the public aware of the heritage value of the cathedral. First half of the 19th century was the time when the values of the past were in trend - and thus, urged by the popular opinion, the authorities decided to save this beautiful building.

RETRIEVED FROM:

<http://www.wondermondo.com/Countries/E/France/IleDeFrance/NotreDameParis.htm>



5 Intriguing Facts About the Roma

By Marc Lallanilla, Live Science | October 23, 2013 03:37pm ET



Photo Credit: Dinos Michail/Shutterstock

Slide 1 of 11

Facts about the Roma

Their names are as diverse as their populations are widespread: Often called the Roma or the Romani people, this minority group is also known as *gitanos* in Spain, as *gitan* in France, as *Tsingani* in Central and Eastern Europe, and by several names across Scandinavia that translate as "Travelers." Roma also refer to themselves by various names: *Kale* in Finland and Portugal, *Manush* in France, and *Sinti* in Germany and Eastern Europe.

Historically, in nearly every country where the Roma have lived, they have also been referred to as [gypsies](#), a derogatory term used to describe an ethnic group that has migrated throughout the world over the course of several centuries.

The Roma have one of the most dramatic stories in human history, but few people know their ancient tale of travel, persecution and survival. Here are five intriguing facts about [the Romani people](#):

- **The Roma originated in India**



Slide 2 of 11

- **The Roma originated in India**

Linguistic analysis suggests that the Roma are originally a Hindi people from northern India. Many of the words and grammatical rules of the Romani language

are virtually identical to those of the Hindi language. [[Top 10 Mysteries of the First Humans](#)]

Genetic evidence also suggests that Romani people may have originated in northern India. A 2012 study, published in the journal *Cell Biology*, analyzed genomic data from 13 Romani communities across Europe. The researchers concluded that the Roma people left northern India about 1,500 years ago; those Roma now in Europe migrated through the Balkans starting about 900 years ago. These findings support written reports of Roma groups arriving in medieval Europe in the 1100s

- **There are about 12 million Roma worldwide**



Slide 4 of 11

- **There are about 12 million Roma worldwide**

After leaving northern India, most Romani went to Europe: In some Eastern European countries, such as Romania and Bulgaria, they form up to 12 percent of the total population. The Roma are also numerous in Turkey, which has about 2.75 million Romani, according to [The New York Times](#). Other European countries with large Roma populations include Russia, Slovakia, Hungary, Serbia, Spain and France.

Though concentrated in Europe, there are also Romani populations on every occupied continent — about 1 million live in the United States, and roughly 800,000 in Brazil. But no matter where they go, the Roma have faced discrimination and persecution.

- **The Romani faced horrific persecution**



Slide 6 of 11

- **The Romani faced horrific persecution**

Shortly after arriving in Europe, the Romani were enslaved in many regions, a cultural heritage that continued into the 19th century in countries like Romania. In England, Switzerland and Denmark, the Romani were put to death throughout the medieval era. Many countries, such as Germany, Italy and Portugal, ordered the expulsion of all Romani.

There are countless reports of Roma children being abducted from their parents, women who had their ears cut off, and Romani who were branded with hot irons. In an effort to force assimilation, the use of their native language was forbidden in some countries; other places forbade the Roma to marry among themselves.

Perhaps the most devastating persecution of the Romani occurred during World War II, when they were among the first targets of Nazi atrocities, according to the BBC. An estimated 2 million Romani died in concentration camps and through other means of extermination. [7 Absolutely Evil Medical Experiments]

In the post-war era, the Romani remained an oppressed group, especially in the Soviet Union. As recently as the 1980s, Roma women in Czechoslovakia were forced to undergo sterilization to limit the Romani population.

- **Roma culture is rich and fascinating**



Slide 8 of 11

- **Roma culture is rich and fascinating**

The Romani are often celebrated for their musical heritage, which has influenced jazz, bolero and flamenco music, as well as classical composers including Franz Liszt. The original traveling Romani populations supported themselves as performers, artisans and tradespeople, according to the Roma Support Group (RSG) an organization created by Roma people to promote awareness of Romani traditions and culture.

Family relationships play an important role in traditional Romani society, and often form the backbone of larger community groups. Roma people frequently identify with ethnic subgroups or "nations," which share similar language variations, dress styles and occupations, according to the RSG.

While it's believed that the Roma were originally Hindu, over the centuries, most Romani have adopted the religions of their host countries. The majority of Roma

communities now practice a form of Islam or Christianity that retains some Romani influences.

- **Roma efforts combat persistent prejudice**

Many Romani still face persecution and discrimination, and are denied rights and services in the countries where they live. Authorities in Italy have denied housing to Roma families — even those born in Italy — on the grounds that people living in cheap, makeshift metal containers in isolated Roma camps already have permanent housing, according to the Guardian.

And in 2013, about 10,000 Roma were expelled from France after their camps were destroyed, according to the Baltimore Sun.

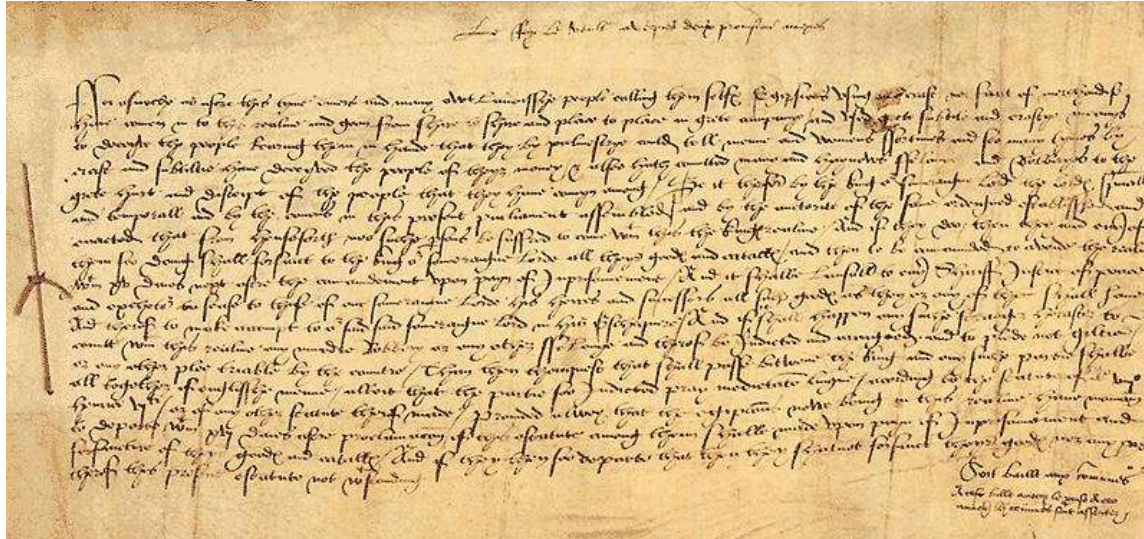
However, recent decades have also seen Roma organizations and individuals working to secure rights for Roma worldwide, to preserve Roma traditions and culture, and to provide resources for Roma communities. For example, the Roma Education Fund supports education programs to assist Romani students and to help integrate Roma into education systems worldwide that have historically excluded them. And Hungarian politician and Romani activist Ágnes Osztolykán received the 2011 International Women of Courage Award from the U.S. State Department, recognizing her efforts promoting Roma recognition and rights in Hungary.

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RETRIEVED FROM:

<https://www.livescience.com/40652-facts-about-roma-romani-gypsies.html>

Romani Gypsies in sixteenth-century Britain

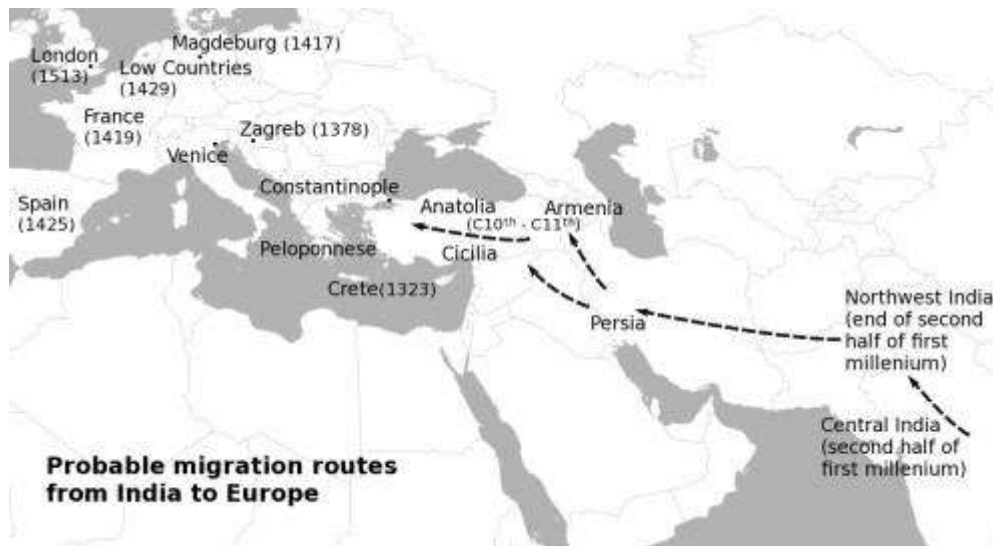


The Egyptians Act, 1530 (Courtesy of The National Archives)

The Egyptians Act 1530 was a response to the arrival of Romani Gypsies, known as 'Egyptians' at the time, in Britain in the sixteenth century. The first definite record of these peoples in Scotland was in 1505, and in England in 1513 or 1514.

‘Egyptian’ migration to western Europe

The movement of Romani Gypsies to Britain in the sixteenth century must be understood in the context of the general migration of these peoples to western Europe from the fifteenth century onwards.



Map of Romani migration. Courtesy of Dr Becky Taylor

‘Egyptians’ were thought to have come from ‘little Egypt’, which was the name given to a part of the Peloponnese peninsula in what is now Greece. However, research from the late eighteenth century has shown that Gypsies with Roma heritage actually originated in northwest India. These people migrated from India through Persia and by the twelfth century had reached the Balkans in south-eastern Europe. The movement of early Gypsy groups was tied to expansions of the Persian, Seljuk and then Byzantine empires. The fall of Constantinople to the Ottomans in 1453 was central to the establishment of Roma communities in what was to become one of their heartlands in Europe, the Balkans. In the Medieval period, ‘Egyptians’ became part of local life and culture right across the Balkans, and by the fifteenth century they started arriving in western Europe.

Right across Europe, when groups of Gypsies arrived in a new city, they were initially welcomed by the local gentry and royalty. They were paid for playing music or telling fortunes and were given permission to camp, often on the outskirts of towns or just outside city walls. In the Scottish court in April 1505 there is a record of Gypsies being paid £7 at the request of the King, possibly either for providing entertainment to the court, or because they were thought to be pilgrims. Reports suggest that these early groups of Romani Gypsies carried papers with them certifying that they were pilgrims carrying out [penance](#) and asking for a guarantee of safe passage across the realm.



Fig. 370.—Gipsies Fortune-telling.—Fac-simile of a Woodcut in the “Cosmographie Universelle” of Munster: in folio, Basle, 1552.

Gypsies Fortune Telling, woodcut in the Cosmographie Universelle of Munster, 1552, Basle (Courtesy of Robert Dawson Romany Collection)

Migration as part of everyday life

Romani Gypsies were just one of many groups of 'strangers' who the inhabitants of Early Modern European cities would have encountered. In the rapidly growing towns of Europe, movement and migration were a normal part of everyday life. By the fifteenth century, the transportation of goods had become quicker and easier and generally safer. Trains of pack animals were replaced by two-wheeled and then four-wheeled wagons, which were run by professional carriers and organised from a network of inns that provided warehousing and packing facilities. These changes in transportation were driven by expanding trade, which led to improvements in the widths and surfaces of roads and the building of countless bridges. Improved travel networks benefited travellers other than merchants and traders. There was a medley of moving people, including wandering scholars, minstrels and travelling entertainers, knife-grinders, travelling healers, [hawkers](#) and [tinkers](#). Of course travelling alongside, and sometimes with, these groups, were pilgrims following well-trodden national and international routes to sites of religious importance. So, Romani Gypsies were, on the one hand, an exotic novelty in western Europe, able to find work as entertainers, and drawing crowds and audiences

at courts because they were different. On the other hand, they were also part of a much larger population of travelling peoples in western Europe at this time.



Gypsies in the Market by Hans Burgkmair, 1473-1531, Germany (Courtesy of Robert Dawson Romany Collection)

Internal migration and vagrancy in Britain and western Europe

The arrival of Romani Gypsies in western Europe in the fifteenth and sixteenth centuries took place in the context of a rise in [vagrancy](#) across Britain and Europe. This was caused by a combination of declining real incomes, population growth (during the reign of Elizabeth I, the population rose from three to four million people) and bad harvests. Together, these problems caused food shortages, acute poverty and unusual amounts of migration. People in western Europe began moving to towns or other areas in search of work, and family groups and individuals took to living on the road, picking up work as they went. This movement led to the expansion of cities, social disruption in the countryside and in towns, and fears among the wealthy classes that chaos and violent unrest were a very real threat.

At the same time as this economic disruption and increased migration within western Europe, attitudes to poverty and the poor began to change. Unlike today, there was no definite support for people who were living in poverty. Traditionally people had turned to their church for charity in times of need and begging was seen as an acceptable way of life. However, the increasing number of paupers in the early sixteenth century put the church charity system under strain. Distinctions between the 'true' or deserving poor and the undeserving poor began to emerge. Orphans, the sick, infirm, aged or widowed were considered to be deserving of support. All those who were unemployed and who begged, other than those who were physically incapable of earning a living, were considered to be the undeserving poor. For the dominant classes, beggars and vagrants presented a profound threat to the established social order. In a period when the

able-bodied poor were supposed to have masters, vagrants were ‘masterless’; they broke conventions of family, economic, religious and political life. Sixteenth-century vagrancy was about more than simply being poor, on the road and rootless. It is difficult to capture the meaning that terms like ‘beggar’ and ‘rogue’ held for contemporaries: today’s equivalent might be ‘terrorist’, ‘extremist’ or ‘anarchist’. Edmund Dudley, writing in England in 1509, stated that vagrants were ‘the very mother of all vice...and the deadly enemy of the tree of commonwealth’.

The government tried to solve the problem of increased vagrancy in this period by attempting to outlaw [vagabonds](#) and ‘masterless men’. The most severe piece of legislation was Edward VI’s ‘infamous’ Act of 1547, which prohibited begging, sentenced vagrants to branding and two years’ servitude for a first offence, and execution for a second offence. The Egyptians Act 1530 (see main source above), like a number of other sixteenth-century laws, wrestled with the problem of separating the deserving from the undeserving poor and of controlling a potentially dangerous section of the population. Laws against Egyptians and the wandering poor, as well as laws to give the deserving poor support from their parishes, were passed across the second half of the sixteenth century – in 1563, 1572, 1576, 1597 and 1601.

Among those who were formally identified as the undeserving poor in these laws were rogues, beggars, vagabonds and, a new category, ‘counterfeit Egyptian’, which included people who were thought to be pretending to be Gypsies. In fact, historians now understand this latter category to be a combination of those, who had newly taken to a nomadic lifestyle as a result of the economic developments of the sixteenth century, and of Romani Gypsies, who were born in Britain. Despite such legislation, Gypsies born in Britain were not ‘foreign’, but British-born, and here to stay.

1500–1750

Europe

[citizenship](#)[discrimination](#)[internal migration](#)[legislation](#)[poverty](#)[tyre-migration](#)

RELATED RESOURCES

Book

Becky Taylor (2014), *Another Darkness, Another Dawn: A History of Gypsies, Roma and Travellers* (esp. Chapter 1)

Web Resources

BBC History – [Poverty in Elizabethan England](#)

Gypsy, Roma, Traveller – [History Timeline](#)

[Romani Cymru: Romany Wales Project](#) - archival and interactive research initiative on the historic Romani tribes of Wales.

[The National Archives](#) - Act for punishment of vagabonds (1572)

Written by Dr Becky Taylor, Reader in Modern History, University of East Anglia

RETRIEVED FROM: <https://www.ourmigrationstory.org.uk/oms/romani-gypsies-in-16th-century-britain>

European Romani exodus began 1,500 years ago, DNA evidence shows

December 6, 2012, [Cell Press](#)

Despite their modern-day diversity of language, lifestyle, and religion, Europe's widespread Romani population shares a common, if complex, past. It all began in northwestern India about 1,500 years ago, according to a study reported on December 6th in *Current Biology*, a Cell Press publication, that offers the first genome-wide perspective on Romani origins and demographic history.

The Romani represent the largest minority group in Europe, consisting of approximately 11 million people. That means the size of the Romani population rivals that of several European countries, including Greece, Portugal, and Belgium.

"We were interested in exploring the population history of European Romani because they constitute an important fraction of the [European population](#), but their marginalized situation in many countries also seems to have affected their visibility in scientific studies," said David Comas of the Institut de Biologia Evolutiva at Universitat Pompeu Fabra in Spain.

The Romani people lack written historical records on their origins and dispersal. To fill in the gaps in the new study, Comas and Manfred Kayser from Erasmus University Rotterdam in the Netherlands, together with their international European colleagues, gathered genome-wide data from 13 Romani groups collected across Europe to confirm an Indian origin for European Romani, consistent with earlier linguistic studies.

The genome-wide evidence specified the [geographic origin](#) toward the north or northwestern parts of India and provided a date of origin of about 1,500 years ago. While the Middle East and Caucasus regions are known to have had an important influence on Romani language, the researchers saw limited evidence for shared genetic ancestry between the European Romani and those who live in those regions of the world today. Once in Europe, Romani people began settling in various locations, likely spreading across Europe via the Balkan region about 900 years ago.

"From a genome-wide perspective, Romani people share a common and unique history that consists of two elements: the roots in northwestern India and the admixture with non-Romani Europeans accumulating with different magnitudes during the out-of-India migration across Europe," Kayser said. "Our study clearly illustrates that understanding the Romani's genetic legacy is necessary to complete the genetic characterization of Europeans as a whole, with implications for various fields, from human evolution to the health sciences."

Explore further: [Native Americans and Northern Europeans more closely related than previously thought](#)

More information: Mendizabal et al.: "Reconstructing the population history of European Romani from genome-wide data." DOI: 10.1016/j.cub.2012.10.039

Journal reference: Current Biology

Provided by: Cell Press

RETRIEVED FROM: <https://phys.org/news/2012-12-european-romani-exodus-began-years.html>

Hunchback of Notre Dame

[Victor Hugo](#)

Summary

During the 1482 Festival of Fools in Paris, Quasimodo, the hunchback of Notre Dame, is elected the Pope of Fools for being the ugliest person in Paris. He is hoisted on a throne and paraded around Paris by the jeering mob. Pierre Gringoire, a struggling poet and philosopher, tries unsuccessfully to get the crowd to watch his play instead of the parade. Archdeacon Claude Frollo appears and stops the parade and orders Quasimodo back to Notre Dame with him. Looking for something to eat, Gringoire admires the graceful beauty of La Esmerelda, a gypsy street dancer, and decides to follow her home. After rounding a corner, she is suddenly attacked by Quasimodo and Frollo. Gringoire rushes to help her but is knocked out by Quasimodo as Frollo runs away. The King's Archers, led by Phoebus de Chateaupers arrive just in time and capture the hunchback. Later that night, a group of beggars and thieves are about to hang Gringoire when La Esmerelda comes forward and offers to save his life by "marrying" him for four years only.

The next day, Quasimodo is put on trial and sentenced to two hours of torture in the Place de Grève. He suffers both the pain of being stretched and pulled apart as well as being publicly humiliated by the crowd of people, who hate him for his ugliness. He begs for water, but no one answers his pleas until La Esmerelda comes forth and brings him something to drink. Nearby, a recluse called Sister Gudule, screams at La Esmerelda for being a "gypsy child- thief" and blames her for her daughter's kidnapping fifteen years earlier. A few months later, La Esmerelda is dancing in front of Notre Dame and Phoebus calls her over to him. She has fallen in love with him and blushes when he asks her to meet him later that night. Frollo watches them from the top of Notre Dame and becomes insanely jealous of Phoebus. His obsessive lust for

La Esmerelda has made him renounce God and study alchemy and black magic. In his secret cell at Notre Dame, he plans to trap La Esmerelda like a spider catching a fly with its web. Later that night he follows Phoebus to his tryst with La Esmerelda and stabs Phoebus repeatedly. He escapes and La Esmerelda is captured by the King's guard.

After being tortured at her trial, La Esmerelda falsely confesses to killing Phoebus and being a witch. She is sentenced to hang in the Place de Grève. Frollo visits her in jail and declares his love. He begs her to love him and show him some pity but she calls him a "goblin-monk" and a murderer, refusing to have anything to do with him. Before her execution, La Esmerelda is publicly humiliated in front of Notre Dame. Looking across the square, she suddenly sees Phoebus and calls out his name. He actually survived the murder attempt but doesn't want anyone to know that he was injured. He turns away from La Esmerelda and enters the house of his bride-to-be. Just then, Quasimodo swings down on a rope from Notre Dame and carries her back to the cathedral, crying out "Sanctuary!" He had fallen in love with her when she brought him water and had been planning her escape all along.

La Esmerelda is safe from execution just as long as she stays inside the cathedral. At first, she finds it hard to even look at Quasimodo, but they form an uneasy friendship. Even though he is deaf, he enjoys being around her when she sings. Meanwhile, a group of vagabonds resolves to save La Esmerelda after hearing that Parliament has ordered that she be removed from Notre Dame. But when Quasimodo sees them attack the cathedral, he thinks they have come to kill La Esmerelda and he fends them off as best he can, killing a large number of them. Frollo has used the attack as a diversion to sneak La Esmerelda out of the cathedral. He offers her two choices: she can either say she loves him or be hanged. She demands to be executed and he leaves her with Sister Gudule. To their astonishment, they discover that they are mother and daughter. Gudule tries to protect La Esmerelda, but it is too late. Back at Notre Dame, Quasimodo goes to the top of the north tower to find her. Gazing off into the distance, he sees the figure of La Esmerelda in a white dress hanging from the scaffold. He bellows out in despair and grabs Frollo by the neck. Holding him up in the air, Quasimodo sighs with grief and then throws Frollo down to his death. Looking at La Esmerelda hanging off in the distance and Frollo's wrangled corpse down below, Quasimodo cries out:

"There is everything I ever loved!" Quasimodo is never seen again. Years later when a gravedigger stumbles across La Esmerelda's remains, he finds the skeleton of a hunchback curled around her.

RETRIEVED FROM: <http://www.sparknotes.com/lit/hunchback/summary/>

Full Synopsis: The Hunchback of Notre Dame, the Musical

Act One

A company of actors emerges, intoning a Latin chant ("Olim") with the onstage Choir. As "The Bells of Notre Dame" echo throughout the cathedral/theatre, the Congregation narrates the dawn of the Feast of Fools, a day when all – even criminals (or worse, gypsies) – are free to roam the streets of Paris without fear of reprisal. From the pulpit, Dom Claude Frollo, the most powerful cleric in Paris, warns his flock against the wickedness of the festival. In flashback, the Congregation reveals the archdeacon's backstory. Frollo and his brother, Jehan, were taken in as orphans by the cathedral priests. Whereas Frollo thrived under the strict rules of the Church, the much wilder Jehan eventually took up with gypsies and was expelled. Many years passed, during which Frollo ascended through the ranks of the Church until he was summoned one day to his estranged brother's deathbed. Although Jehan rejected Frollo's offer of sanctuary, he did ask his brother to care for his gypsy baby. In grief, Frollo reluctantly agreed to do so and named the deformed child Quasimodo ("half-formed"). Frollo kept Quasimodo secluded in the cathedral bell tower for many years....

Now grown, Quasimodo is the lonely, but staunchly obedient, bell-ringer at Notre Dame. Frollo continues to offer him "Sanctuary" within the confines of the cathedral, but Quasimodo longs to be "Out There," and so he drums up the courage to defy Frollo and sneak out of the tower to attend the Feast of Fools. Down below in the square, Clopin leads the gypsies in their annual takeover of Paris ("Topsy Turvy") just as Captain Phoebus de Martin arrives from the battlefield to assume command of the Cathedral Guard. Looking forward to some "Rest and Recreation" first, Phoebus is disappointed to find himself taking his new position early and reporting to the reproachful Frollo. Both men are instantly captivated by the arrival of the beautiful gypsy, Esmeralda, as she dances in public to the "Rhythm of the Tambourine." The frenzied crowd then joins together to crown the King of Fools ("Topsy Turvy – Part 2"). They choose Quasimodo for the mock honor, but, as Frollo predicted, the people treat him with remarkable cruelty when their celebration of his deformity turns to contempt. Hostilities rise as the mob surrounds Quasimodo, ties him up and beats him while Frollo looks on in cold silence. Esmeralda rescues Quasimodo from the abuse, enduring frustrated taunts from the crowd before she disappears in a flash of smoke amid exclamations of witchcraft. Frollo steps forward to collect a chastened Quasimodo, who promises to never again leave the tower ("Sanctuary II").

Concerned about Quasimodo's welfare, Esmeralda ventures into the cathedral ("The Bells of Notre Dame – Reprise"), where Frollo, still overwhelmed by her beauty, offers her sanctuary and spiritual guidance. While she ponders this opportunity ("God Help the Outcasts"), Phoebus happens upon her, and they duel flirtatiously. Eventually, Esmeralda finds Quasimodo, who shows her the view from the bell tower ("Top of the World"). Frollo finds them there and confronts Esmeralda with his offer but, when she refuses, he has Phoebus escort her from the cathedral. He encourages Quasimodo to forget about the unclean gypsy.

However, Frollo cannot stop thinking about Esmeralda and roams the streets in the shadow of darkness. One night, he comes upon a tavern where the gypsies spiritedly sing and dance ("Tavern Song – *Thai Mol Piyas*"). Inside, a charmed Phoebus seeks out Esmeralda, and their flirtation escalates, climaxing in a kiss. The spying Frollo, enticed and horrified, runs off. Back in the bell tower, Quasimodo remains smitten by Esmeralda's beauty and kindness ("Heaven's Light"). Meanwhile, Frollo convinces himself that Esmeralda is a demon who has been sent to tempt his very soul ("Hellfire").

The next morning, Frollo convinces King Louis XI to put out a warrant for Esmeralda's death, and a search commences ("Esmerelda / Act I Finale"). Frollo targets a brothel that he suspects has been harboring Esmeralda. When Phoebus refuses a direct order to burn it down, Frollo has him arrested. Esmeralda appears from the crowd, and a fight breaks out. Frollo stabs Phoebus and blames Esmeralda, who escapes with the injured Phoebus. Frollo continues the hunt while Quasimodo watches the burning chaos from above.

Act Two

The Choir sings the "Entr'acte" in Latin.

In the bell tower ("*Agnus Dei*"), Esmeralda implores Quasimodo to hide the wounded Phoebus until he is stronger. Quasimodo agrees to help, and she offers him an amulet that will lead him to where she hides. Envisioning himself as her savior and protector ("Flight into Egypt"), Quasimodo lies to Frollo when asked if he knows where Esmeralda might be ("Esmerelda – Reprise"). Frederic interrupts to reveal that the soldiers have found the gypsy lair, and Frollo declares that they will attack at dawn. Quasimodo and the injured Phoebus use the amulet to find Esmeralda before Frollo does ("Rest and Recreation – Reprise").

Arriving at the gypsy lair, Phoebus and Quasimodo are captured by Clopin and the gypsies, who sentence them to death ("The Court of Miracles"). Esmeralda intervenes, and the two men warn of Frollo's impending attack. As the gypsies prepare to flee, Phoebus decides to go with Esmeralda. She consents and matches his commitment to a life together while Quasimodo watches, heartbroken ("In a Place of Miracles"). Frollo barges in, sends Quasimodo back to the tower and arrests Esmeralda and Phoebus ("The Bells of Notre Dame – Reprise II").

In prison, Frollo confesses his love to Esmeralda and attacks her ("The Assault"). When Esmeralda refuses him, Frollo threatens Phoebus' life, as well, and then has him brought into her cell so she can rethink his offer. Esmeralda and Phoebus spend their final night alive together ("Someday"). Now, bound in the tower, Quasimodo believes that he is the only one who can save Esmeralda ("While the City Slumbered"), but Frollo has made him doubt himself ("Made of Stone").

In the square the next morning, Phoebus watches from his cage as Esmeralda is tied to a wooden stake ("*Judex Crederis*"). Frollo again offers to save her if she will be his ("*Kyrie Eleison*"). Her steadfast refusal enrages him, and he lights the pyre himself. Witnessing the horror from above, Quasimodo gains courage, breaks free of his bonds and swoops down to free the badly injured Esmeralda. He then enters the cathedral with her in his arms, claims sanctuary, bars the doors and returns her to safety in his tower. Violence breaks out in the square as Phoebus and Clopin rally the crowd against Frollo. When the Cathedral Guard breaks down the church doors, Quasimodo's last defense is to pour molten lead down on them, which ends the attack.

Quasimodo returns to Esmeralda, who declares him a good friend before she dies in his arms ("Top of the World – Reprise"). Frollo enters and tries to comfort the distraught Quasimodo ("Esmeralda – Frollo Reprise"), but he finally sees the archdeacon for the monster he is and throws him from the tower to his death ("Finale Ultimo"). Phoebus arrives, weak and broken from the battle, and collapses on Esmeralda's body in grief. Quasimodo comforts him before picking up Esmeralda and carrying her into the square, where the Congregation has gathered to mourn.

RETRIEVED FROM: <https://www.mtishows.com/the-hunchback-of-notre-dame>

Song list

- Olim
- The Bells of Notre Dame
- Sanctuary
- Out There
- Topsy Turvy (Part 1)
- Rest and Recreation
- Rhythm of the Tambourine
- Topsy Turvy (Part 2)
- Sanctuary II
- The Bells of Notre Dame (Reprise)
- God Help the Outcasts
- Top of the World
- Tavern Song (Thai Mol Piyas)
- Heaven's Light
- Hellfire
- Esmeralda
- Entr'acte
- Flight into Egypt
- The Court of Miracles
- In a Place of Miracles
- The Bells of Notre Dame (Reprise II)
- Someday
- While the City Slumbered
- Made of Stone
- Top of the World (Reprise)
- Esmeralda (Frollo Reprise)
- Finale Ultimo

RETRIEVED FROM: <https://www.mtishows.com/the-hunchback-of-notre-dame>

Characters

Cast Size: Large 21 And Up

Cast Type: Ethnic Roles

Claude Frollo

Archdeacon of Notre Dame Cathedral and the most powerful cleric in Paris, he is the reluctant caretaker of Quasimodo. He will do whatever it takes to rid the city of the gypsy “vermin,” even as he lusts after Esmeralda. Calculating, manipulative, and obsessive.

Gender: Male

Age: 40 to 50

Jehan Frollo

Claude’s reckless younger brother. With the gypsy Florika, he fathers Quasimodo, who he leaves in his brother’s care. Wild, passionate, and strong-willed.

Gender: Male

Age: 20 to 30

Florika

A gypsy and Quasimodo’s mother.

Gender: Female

Age: 20 to 30

Father Dupin

A priest of Notre Dame and Claude and Jehan’s guardian.

Gender: Male

Age: 40 to 60

Quasimodo

The deformed bell-ringer of Notre Dame and Claude Frollo’s charge. Lonely and staunchly obedient to Frollo, he possesses a vivid imagination that brings to life the bells and gargoyles of the cathedral. Despite his shyness and uncertainty, he quickly befriends Esmeralda. Big-hearted, and brave when need be.

Gender: Male

Age: 20 to 30

Clopin Trouillefou

The clever and charismatic King of the Gypsies. An air of mystery surrounds Clopin, who often leaves the scene in a puff of smoke. As the master of ceremonies for the Feast of Fools, he is witty and playful, but he boasts a darker, serious nature when not performing for the crowd.

Gender: Male

Age: 30 to 40

Captain Phoebus de Martin

Returning to Paris after serving in the war, Phoebus takes up his new position as Captain of the Cathedral Guard. Overconfident yet charming, this handsome, strong soldier makes the ladies swoon, yet his moral compass is also strong, and he openly defies the corrupted Frollo.

Gender: Male

Age: 25 to 40

Lieutenant Frederic Charlus

Lieutenant of the Cathedral Guard and loyal friend to Phoebus.

Gender: Male

Age: 20 to 30

Esmeralda

A beautiful and free-spirited gypsy who possesses the strong sense of justice and morality that Frollo lacks. Compassionate, she frees Quasimodo from the frenzied mob at the Feast of Fools and, against her better judgment, falls for the cocky Phoebus.

Gender: Female

Age: 20 to 30

King Louis XI

King of France, nicknamed the Prudent.

Gender: Male

Age: 40 to 50

Tribunal

A judicial officer.

Gender: Male

Age: 20 to 50

Madam

Owner of a brothel and safe haven for gypsies.

Gender: Female

Age: 35 to 50

Saint Aphrodisius

A stained-glass image that comes to life.

Gender: Male

Age: 30 to 50

Congregation

Gypsies, gargoyles, soldiers, and citizens of Paris.

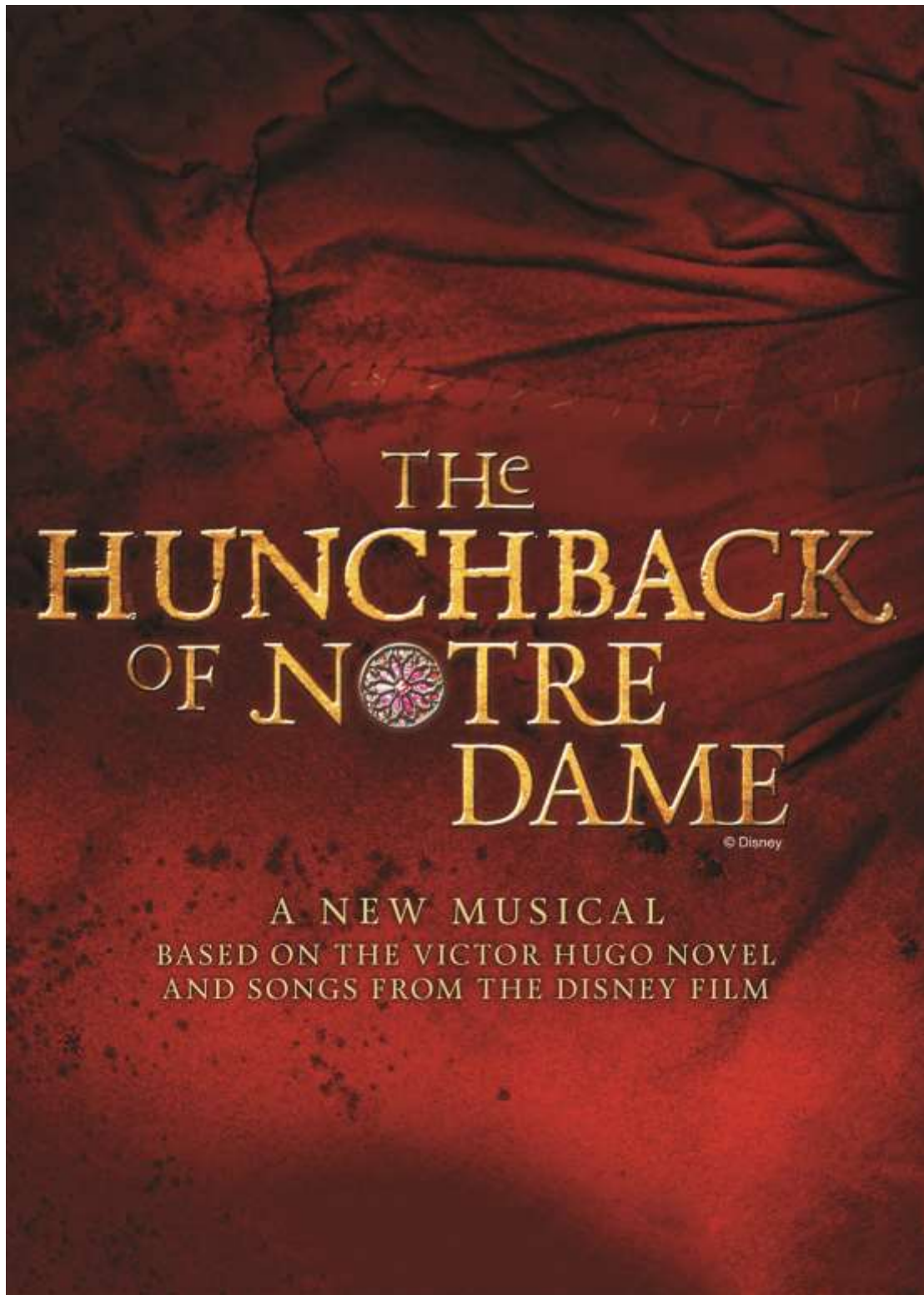
Gender: Both

Choir

Gender: Both

RETRIEVED FROM: <https://www.mtishows.com/the-hunchback-of-notre-dame>

LESSONS





Character Traits:

What Makes a Man

The musical **The Hunchback of Notre Dame** is a retelling of Victor Hugo's epic story of love. The musical begins as the bells of Notre Dame sound through the famed cathedral in fifteenth-century Paris. Quasimodo, the deformed bell-ringer who longs to be "Out There," observes all of Paris reveling in the Feast of Fools. In both Victor Hugo's novel and the musical adapted from the novel, characters form opinions about other characters based on appearance. As an example, because Quasimodo has a deformity, some characters view him as a monster or evil; the name Quasimodo means "half formed." As another example, because the gypsies are wanderers and street performers, some other characters view them as vermin.

In this lesson, students will discuss the definitions of character (both the persona in a novel or musical and the attributes or personal qualities of the persona,) brain storm about character traits, analyze images of two characters, Quasimodo the bell ringer and Frollo Archdeacon of Notre Dame Cathedral, share opinions about these characters' personal traits (based only on the character's physical appearance,) review a description of both characters from the musical and investigate how these descriptions compare to opinions based only on appearance.

Begin this lesson by explaining students will be investigating **The Hunchback of Notre Dame** and exploring ideas about two of the main characters within the story. Explain that **The Hunchback of Notre Dame** has been adapted several times and this lesson will be focusing on one of the adaptations, the musical version. Display the excerpt of the lyrics for **The Bells of Notre Dame** where the lyrics can be seen by the whole class, such as on an ELMO or SMART board. Explain these lyrics are from the opening song of the musical **The Hunchback of Notre Dame**. As a class, discuss the lyrics. During the discussion, brain storm about character traits, five positive (what would make "a man" a man or a good person") and five negative (what would make a man "a monster" or bad person.) Lists these 10 character traits, five good and five bad, where they can be seen by the whole class.

Follow this by reviewing the definitions of character. Display the definitions where they can be seen by the whole class, such as on an ELMO or SMART board. Discuss the definitions.

Investigate additional character traits. Display **Character Traits: How is My Character as a Person?** where it can be seen by the whole class, such as on an ELMO or SMART board. Discuss the character traits. During the discussion, consider the following question: Are any of these the same as the 10 traits listed by the class?

Explain students will now have opportunities to express opinions about two characters in **The Hunchback of Notre Dame** and that they will be basing their opinions only on physical appearance, IE: what the characters look like. Distribute a copy of **Character Traits: What Makes a Man: Claude Frollo** and a pencil to each student. Display the image of Frollo where it can be seen by the whole class, such as on an ELMO or SMART board. Using only the photograph, ask students to write five character traits/personal qualities that this character might have. Once students have completed this sheet, distribute a copy of **Character Traits: What Makes a Man: Quasimodo** to each student. Display the image of Quasimodo where it can be seen by the whole class, such as on an ELMO or SMART board. Using only the photograph, ask students to write five character traits/personal qualities that this character might have.

Follow this by reviewing character descriptions for Frollo and Quasimodo from the musical **The Hunchback of Notre Dame**. Display the descriptions where they can be seen by the whole class, such as on an ELMO or SMART board. Read the descriptions as a class. Next, display the definitions for the words used to describe the characters (IE: powerful, reluctant, calculating, lonely, obedient, brave, etc.) Read and discuss the definitions. During the discussion, consider the following question: Do the character descriptions match the class descriptions of the characters? Ask students to complete their **Character Traits: What Makes a Man: Claude Frollo** and **Character Traits: What Makes a Man: Quasimodo** Venn diagrams.

Distribute a copy of the **What Makes a Man** flow chart to each student. Ask students to consider the different activities the class did to investigate characters and personal qualities/character traits. Ask students to complete the flow chart.

Follow this by distributing a copy of the **What Makes a Man** Essay Organizer to each student. Ask students to use the flow charts they have just completed and their Venn diagrams to help them complete the Essay Organizer. Once students have completed their **What Makes a Man** Essay Organizer, distribute paper to each student. Ask them to use their essay organizers to help them write an essay. Once students have completed their essays, give students opportunities to read their essays aloud to the class.

The Bells of Notre Dame, Song Excerpt

CONGREGATION:

Now here is a riddle to guess if you can
Sing the Bells of Notre Dame
What makes a monster and what makes a man?
Sing the Bells, Bells, Bells,
Bells, Bells, Bells, Bells, Bells
Bells of Notre Dame

Songwriters: Alan Menken / Stephen Schwartz

The Bells Of Notre Dame lyrics © Walt Disney Music Company

RETRIEVED FROM <http://www.themusicallyrics.com/h/368-the-hunchback-of-notre-dame-the-musical-lyrics/4000-the-bells-of-notre-dame-lyrics.html>



Definition of CHARACTER

1a : one of the attributes (see ¹ATTRIBUTE 1) or features that make up and distinguish an individual

- This is a side of her *character* that few people have seen.
- b (1) : a feature used to separate distinguishable things into categories; *also* : a group or kind so separated
- advertising of a very primitive *character*

(2) : the aggregate of distinctive qualities characteristic of a breed, strain, or type

- a wine of great *character*

(3) : the detectable expression of the action of a gene or group of genes

c : the complex of mental and ethical traits marking and often individualizing a person, group, or nation

- the *character* of the American people
d : main or essential nature especially as strongly marked and serving to distinguish

- excess sewage gradually changed the *character* of the lake
2a : one of the persons of a drama or novel

b : the personality or part which an actor recreates

- an actress who can create a *character* convincingly
c : characterization especially in drama or fiction

- a novelist good in both *character* and setting
d : PERSON, INDIVIDUAL

- a suspicious *character*
e : a person marked by notable or conspicuous traits

- quite a *character*
3: moral excellence and firmness

- a man of sound *character*

RETRIEVED FROM: <https://www.merriam-webster.com/dictionary/character>

Character Traits

How is my character as a person?

nice	mean	Sad
bright	angry	antisocial
cheerful	bossy	comfortless
caring	cruel	depressed
charming	dark	down
considerate	disrespectful	friendless
delightful	evil	gloomy
encouraging	harsh	glum
friendly	hateful	heartbroken
kind	impolite	heavy-hearted
likable	insensitive	hopeless
loving	raging	isolated
peaceful	rude	lonely
pleasant	selfish	lonesome
polite	spoiled	miserable
respectful	thoughtless	moody
sensitive	uncaring	sorrowful
sweet	unfriendly	unhappy
thoughtful	unpleasant	withdrawn

Does a lot	Does very little
active	bored/boring
adventurous	dull
ambitious	indifferent
bold	lazy
busy	neglectful
energetic	sluggish
hard-working	uninterested

positive	negative
cooperative	uncooperative
calm	reactive
dependable	undependable
fair	unfair
honest	dishonest
humble	conceited
mature	immature
patient	impatient
responsible	irresponsible
trustworthy	untrustworthy

confident	nervous
assertive	anxious
brave	concerned
certain	fearful
courageous	hesitant
fearless	uncertain
independent	uneasy
sure	unsure

Opposites	
calm	hyperactive
funny	serious
gentle	rough
glamorous	simple
shy	loud
quiet	noisy

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RETRIEVED FROM: <https://www.pinterest.com/explore/character-trait/>



From the JPAS production of **The Hunchback of Notre Dame**



From the JPAS production of **The Hunchback of Notre Dame**

Character Overviews from *The Hunchback of Notre Dame*

Claude Frollo

Archdeacon of Notre Dame Cathedral and the most powerful cleric in Paris, he is the reluctant caretaker of Quasimodo. He will do whatever it takes to rid the city of the gypsy “vermin,” even as he lusts after Esmeralda. Calculating, manipulative, and obsessive.

Quasimodo

The deformed bell-ringer of Notre Dame and Claude Frollo’s charge. Lonely and staunchly obedient to Frollo, he possesses a vivid imagination that brings to life the bells and gargoyles of the cathedral. Despite his shyness and uncertainty, he quickly befriends Esmeralda. Big-hearted, and brave when need be.

RETRIEVED FROM: <https://www.mtishows.com/the-hunchback-of-notre-dame>



Dennis Jesse

Frollo in the JPAS production of *The Hunchback of Notre Dame*



Enrico Cannella

Quasimodo in the JPAS production of *The Hunchback of Notre Dame*



Definition of POWERFUL

1: having great power, prestige, or influence

- a *powerful* leader
- 2: leading to many or important deductions
- a *powerful* set of postulates

RETRIEVED FROM: <https://www.merriam-webster.com/dictionary/powerful>

Definition of RELUCTANT

: feeling or showing aversion, hesitation, or unwillingness

- *reluctant* to get involved
; *also* : having or assuming a specified role unwillingly
- a *reluctant* hero

RETRIEVED FROM: <https://www.merriam-webster.com/dictionary/reluctant>

Definition of CALCULATING

1: making calculations

- *calculating* machine
- 2: marked by prudent analysis or by shrewd consideration of self-interest : SCHEMING

RETRIEVED FROM: <https://www.merriam-webster.com/dictionary/calculating>

Definition of MANIPULATIVE

: of, relating to, or performed by manipulation

- Osteopathy emphasizes *manipulative* techniques to correct abnormalities thought to cause disease and inhibit recovery.
- —Carol L. Otis et al.
; *especially* : serving or intended to control or influence others in an artful and often unfair or selfish way
- a clever and *manipulative* child
- *manipulative* behavior

RETRIEVED FROM: <https://www.merriam-webster.com/dictionary/manipulative>

Definition of OBSESSIVE

1a : tending to cause obsession

b : excessive often to an unreasonable degree

RETRIEVED FROM: <https://www.merriam-webster.com/dictionary/obsessive>



Definition of LONELY

lonelier; loneliest

1a : being without company : LONE

- too many *lonely* nights at home
- b : cut off from others : SOLITARY

- the train stopped frequently at *lonely* little stations
- —Robert Hichens

2: not frequented by human beings : DESOLATE

- a *lonely* spot in the woods
- 3: sad from being alone : LONESOME

- He was feeling *lonely* without his wife and children.
- 4: producing a feeling of bleakness or desolation

- it's a *lonely* thing to be a champion
- —G. B. Shaw

RETRIEVED FROM: <https://www.merriam-webster.com/dictionary/lonely>

Definition of OBEDIENT

: submissive to the restraint or command of authority : willing to obey

- an *obedient* child
- an *obedient* dog
- *obedient* to those whom he feared
- —A. N. Wilson

RETRIEVED FROM: <https://www.merriam-webster.com/dictionary/obedient>

Definition of SHY

shier or **shyer** play \ 'shī(-ə)r\; **shiest** or **shyest** play \ 'shī-əst\

1: easily frightened : TIMID

2: disposed to avoid a person or thing

- publicity *shy*

3: hesitant in committing oneself : CIRCUMSPECT

4: sensitively diffident or retiring : RESERVED; *also* : expressive of such a state or nature

- ashy smile

5: SECLUDED, HIDDEN

RETRIEVED FROM: <https://www.merriam-webster.com/dictionary/shy>

Definition of BIGHEARTED

: GENEROUS, CHARITABLE

RETRIEVED FROM: <https://www.merriam-webster.com/dictionary/bighearted>

Definition of BRAVE

braver; **bravest**

1: having or showing mental or moral strength to face danger, fear, or difficulty : having or showing courage

- a *brave* soldier

- a *brave* smile

RETRIEVED FROM: <https://www.merriam-webster.com/dictionary/brave> <https://www.merriam-webster.com/dictionary/brave>



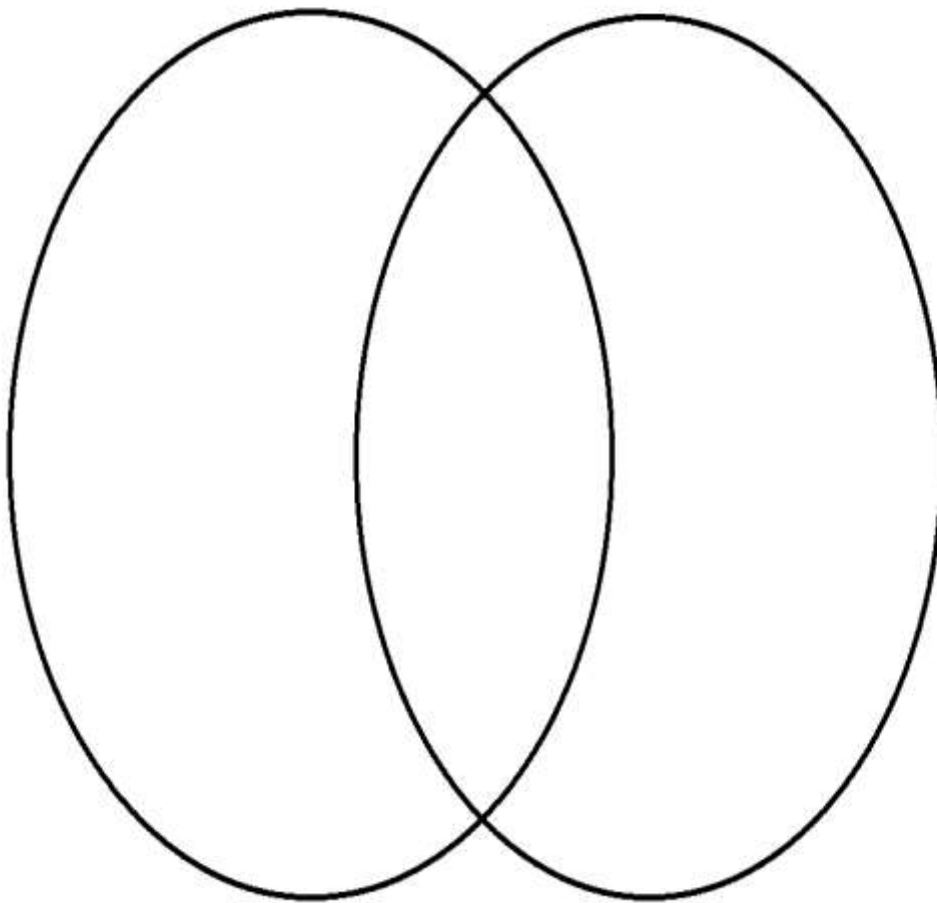
Character Traits:

What Makes a Man: Claude Frolo

Name_____

**Character Description based
on appearance
(photo)**

**Character Description from
Hunchback of Notre Dame, the musical**





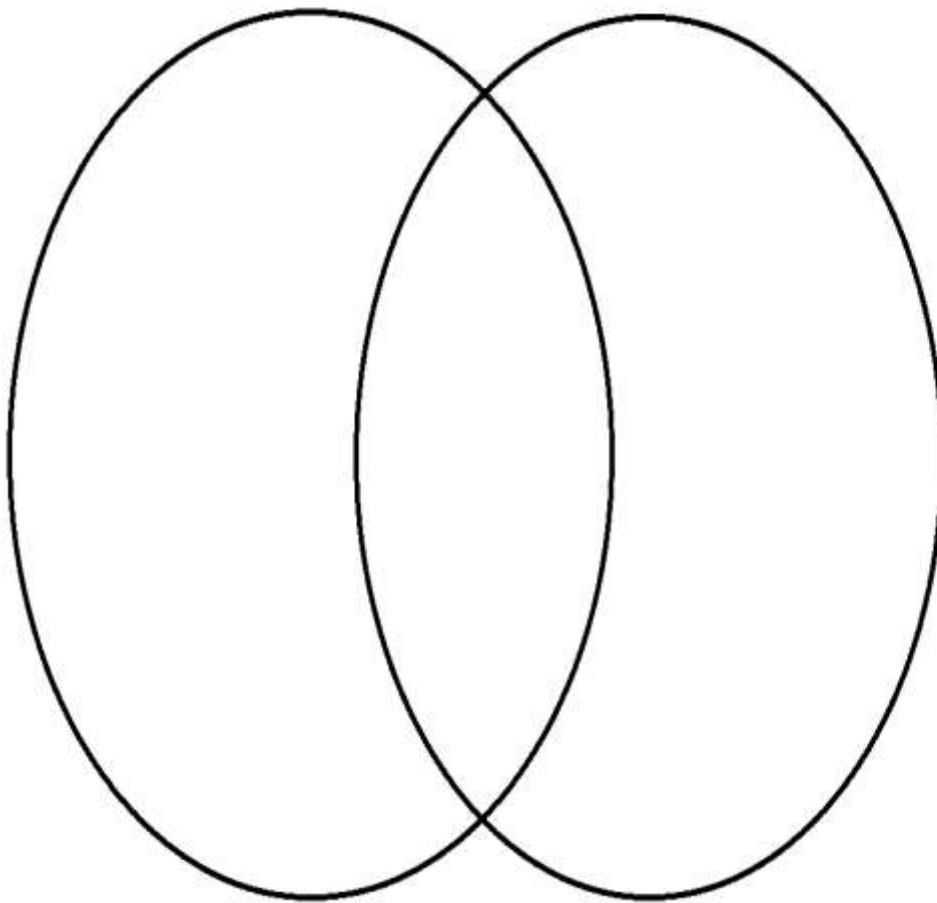
Character Traits:

What Makes a Man: Quasimodo

Name _____

Character Description based
on appearance
(photo)

Character Description from
Hunchback of Notre Dame, the musical



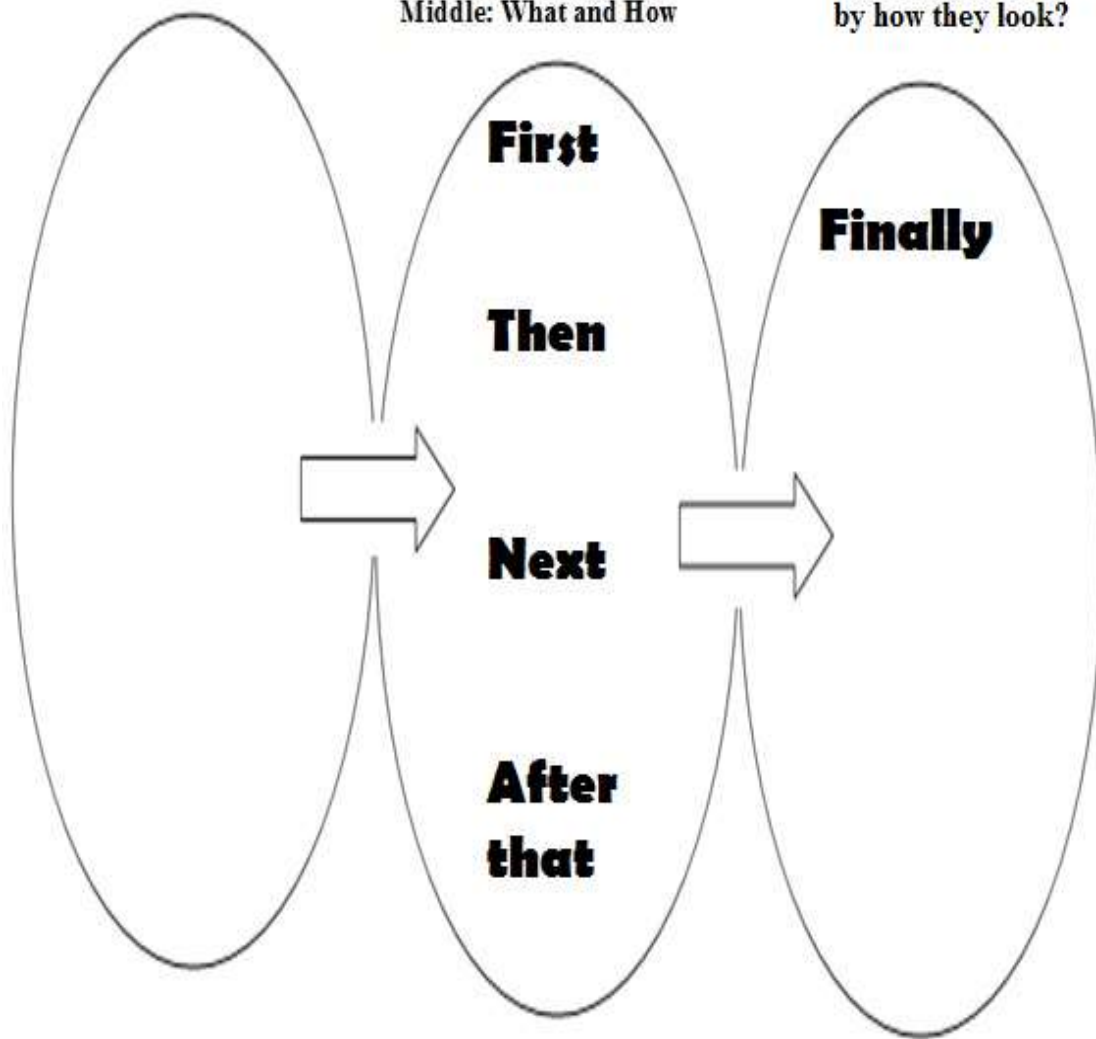


Character Traits: What Makes a Man Name_____

Beginning: Character traits,
what are they?

Middle: What and How

Ending: Can you tell a
person's character traits
by how they look?





Character Traits: What Makes a Man Essay Organizer

Name_____

Paragraph 1: What are character traits?

- 1.
- 2.
- 3.
- 4.
- 5.

Paragraph 2: First_What character traits does Claude Frollo have (based on his picture)?

- 1.
- 2.
- 3.
- 4.
- 5.

Paragraph 3: Then_What character traits does Quasimodo have (based on his picture)?

- 1.
- 2.
- 3.
- 4.
- 5.



Character Traits: What Makes a Man Essay Organizer, Page 2

Name_____

Paragraph 4: Next _How does the Hunchback of Notre Dame, musical describe Frolo and Quasimodo's character traits?

- 1.
- 2.
- 3.
- 4.
- 5.

Paragraph 5: Finally_ Can you tell a person's character from how they look? Do the class character descriptions based on pictures match the character descriptions found in the musical? Why or why not?

- 1.
- 2.
- 3.
- 4.
- 5.

K-12 Student Standards for English Language Arts » Grade 1

Reading Standards for Informational Text

Key Ideas and Details

1. Ask and answer questions about key details in a text.
2. Identify the main topic and retell key details of a text.
3. Describe the connection between **two individuals**, events, ideas, or pieces of information in a text.

Craft and Structure

4. Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.

Integration of Knowledge and Ideas

7. Use the illustrations and **details** in a text to describe its key ideas.
8. Identify the reasons an author gives to support points in a text.
9. Identify basic similarities in and differences between two texts on the same topic (e.g., in **illustrations**, **descriptions**, or procedures).

Range of Reading and Level of Text Complexity

10. With prompting and support read informational texts appropriately complex for grade 1.

Writing Standards

Research to Build and Present Knowledge

8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

K-12 Student Standards for English Language Arts » Grade 4

Reading Standards for Informational Text

Key Ideas and Details

1. Refer to **details and examples in a text** when explaining what the text says explicitly and when drawing inferences from the text.
2. Determine the main idea of a text and explain how it is supported by key details; summarize the text.

Craft and Structure

5. Describe the overall structure (e.g., chronology, **comparison**, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.

Writing Standards

- d. Use precise language and domain-specific vocabulary to inform about or explain the topic.

K-12 Student Standards for English Language Arts » Grade 7

Reading Standards for Informational Text

Key Ideas and Details

1. Cite several pieces of relevant textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
3. Analyze the interactions between **individuals**, events, and ideas in a text (e.g., **how ideas influence individuals** or events, or how individuals influence ideas or events).

Writing Standards




3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured **event sequences**.
- d. Use precise words and phrases, relevant **descriptive details**, and sensory language to capture the action and convey experiences and events.



The Towers of Notre Dame

By Karel Sloane-Boekbinder

The musical **The Hunchback of Notre Dame** is a retelling of Victor Hugo's epic story of love. The musical begins as the bells of Notre Dame sound through the famed cathedral in fifteenth-century Paris. Quasimodo, the deformed bell-ringer who longs to be "Out There," observes all of Paris reveling in the Feast of Fools. The bell towers of Notre Dame feature prominently in Victor Hugo's novel and in the musical adaptation of Hugo's story.

In preschool, students learn about shapes. They learn how to identify them by appearance. As an example, a shape made of straight lines with four equal sides is a square,  a shape made of three straight lines is a triangle,  a shape made of straight lines where the sides opposite each other (parallel) are equal is a rectangle  and so forth. In this lesson, we will expand on students' understanding of shapes, multiplication and measurement by exploring them through the lens of an actual place, Notre Dame in Paris, and investigating the many ways this place was used as inspiration for both storytelling and set designs.

In this lesson, students will become familiar with the physical place that inspired Victor Hugo, Disney animators and Set Designer Adam Koch: Notre Dame Cathedral in Paris, France. Growing up in Paris, Victor Hugo fell in love with gothic architecture and with Notre Dame in particular. The first three chapters of his novel **The Hunchback of Notre Dame** are devoted to describing gothic architecture of his time in great detail. When Disney was adapting Hugo's novel into an animated movie, Disney animators traveled to Paris to research the building design of Notre Dame in order to develop imagery for the film. Notre Dame additionally inspired Adam Koch, Set Designer for the Ogunquit Playhouse production of **The Hunchback of Notre Dame**. JPAS will be using the Ogunquit Playhouse set for our Production of **The Hunchback of Notre Dame**. Students will have the opportunity to use Notre Dame as inspiration while they work in teams, architect and builder, to construct their own tower of Notre Dame. To do this, students will examine Notre Dame Cathedral towers and gargoyles, read an excerpt from Victor Hugo's novel, read an interview with **The Hunchback of Notre Dame** Set Designer Adam Koch, review concepts in multiplication, division, area and perimeter and work collaboratively to build a small replica of the top of one of the towers.

Begin this lesson by explaining students will be investigating **The Hunchback of Notre Dame**, exploring the inspiration behind the story and working in teams to create something inspired by both the story and the real-life location. Display the article about the towers of Notre Dame and the gargoyles *where the article can be seen by the whole class*, such as on an ELMO or SMART board. As a class, read and discuss the images and the article.

Display the excerpt of the novel **The Hunchback of Notre Dame** by Victor Hugo *where it can be seen by the whole class*, such as on an ELMO or SMART board. As a class, read and discuss the excerpt.

Display the interview with **The Hunchback of Notre Dame** Set Designer Adam Koch *where it can be seen by the whole class*, such as on an ELMO or SMART board. As the class reads and discusses the article, consider the following questions: 1) How does Adam Koch feel about his designs for **The Hunchback of Notre Dame**? 2) Why does he feel that way? and 3) What were Adam Koch's inspirations for the set designs for **The Hunchback of Notre Dame**?

Explain that students will now have the opportunity to work as architects and builders to construct a mini-version of the top of one of the towers. As a class, review the definitions for architects and builders. Display the definitions *where they can be seen by the whole class*, such as on an ELMO or SMART board. As the class reads and discusses the definitions, explain the difference between the two. The architect has an expertise in design. An architect uses math creatively as they develop their designs for buildings. The builder has an expertise in scheduling and budget management, the construction schedule, the costs and all the details of construction.

Continue this discussion by reflection on measurement. As a class, consider the following questions: 1) How do we use measurement? and 2) How would you use measurement if you were building a tower? Record student responses where they can be visible to the whole class.

Continue the discussion using classroom technology. Using an ELMO or SMART board and the Internet, use a search engine to visit <https://www.quora.com/When-would-finding-a-perimeter-be-used-in-everyday-life>. As a class, read and discuss the article.

Explain that visual artists, architects and set designers all use basic shapes, such as squares and rectangles, to help them develop designs. These basic shapes can be used to help architects, builders and set designers consider the perimeter and area of objects as they convert the 2-dimensional objects into 3-dimensional structures. Explain that students will be breaking into groups to create a model of the top of one of

the towers of Notre Dame. One student will be the architect and one student will be the builder.

Display the Math is Fun information about area and perimeter where it can be viewed by the whole class, such as on an ELMO or SMART Board. Explain these are some examples of how to discover the area of basic shapes. As a class, read and discuss the information.

Follow this with a large class demo of how students will be using multiples/groups of 4, area and perimeter to construct a tower. Ask one or two students to come to the front of the class. Using pencils in multiples/groups of 4 construct the tower. Explain this construction is like Jenga—the pencils must be carefully balanced to build the tower walls. Also explain that when the students work together to build their towers, they will be using craft sticks and glue; although they will still need to balance, the glue will make their construction more stable. As part of the demo, once the tower is constructed, ask the student volunteer(s) to use a ruler to measure and then use the measurements to calculate the area and perimeter. Ask the student volunteer(s) to use the area and perimeter, an index card a pencil and scissors to construct a roof for the tower and windows. (NOTE: As a way to introduce ratio and proportion, in our sample, we created windows that were $\frac{1}{2}$ the size of the roof. We also used Halo action figures for gargoyles. The Halo Alpha Crawler has crystals. The Halo Crawler has horns similar to the gargoyles that adorn the towers of Notre Dame:

https://www.halopedia.org/Alpha_Crawler .)

Ask students to choose a partner or divide the class into groups of two (NOTE: this can be used as a multiplication review of multiples/groups of two. Count the groups; how many groups of two does the class have? As a class, once every student has a partner, count the groups as multiples of two.) Once students are partnered, ask them to choose: one student will be the architect and one student will be the builder. One of the builder's responsibilities will be time management of the build—how quickly can the team of two build a tower that is between 11 and 15 groups of 4 tall (between $4 \times 11 = X$ and $4 \times 15 = X$)? NOTE: Towers are rectangles. Rectangles have four right angles. Another one of the builder's responsibilities will be to ensure the sides of the tower are straight so that the tower has four right angles. Distribute craft sticks, glue sticks, note cards (for the roof and windows,) pencils and rulers to each group of two students (and Halo action figures if you have them.) Ask each group to work together to construct a tower. Once towers are fully constructed (tower, roof and windows,) lead a class gallery tour of the towers. As each group shares how they constructed their tower, ask them to include math information, IE: How tall is their tower—how many groups of 4 did they use? What is the area and perimeter of their roof? How big are their windows?

Follow the gallery walk by distributing a copy of a **Towers of Notre Dame**

Comprehension Picture Phrase Match and a pencil to each student. Explain that just like their tower models, when an architect designs a building or a builder constructs a building they base construction on size. The sizes for buildings are based on floors or levels. When buildings are constructed, these floors or levels are called stories. A story is about 11 feet. The Cathedral of Notre Dame is 226 feet high, or about 20 1/2 stories (NOTE: the class can also do this as a math demo, $226/11 = X$, solving for X.) Ask students to consider the towers they just constructed. Then ask them to sketch a tower in the style of Notre Dame in Paris. Ask them to write a word problem to represent their sketch and to consider one story, or 11 feet, as 4 groups of 12, or 4×12 . Also ask them to write and solve words problems for one and a half stories and two stories.

EXTENTION: Construct a second tower. Using Adam Koch as inspiration, keep building material prices in mind during the build. Use the crafts sticks like plywood: each stick is a standard sheet. A standard sheet of plywood costs \$32. Ask students to calculate the price as they calculate the groups of four/multiples of 4 needed to build a tower that is the same size as the first one (NOTE: in set design, a standard sheet of plywood is 4' X 8'.) Display the Math is Fun information about ratio and proportion where it can be viewed by the whole class, such as on an ELMO or SMART Board. As a class, read and discuss the information. Using the measurement for a standard sheet of plywood, 4' X 8', and the ratio of every half inch in the model equals a foot in real life, ask students to calculate the full size of their towers. The craft sticks we use in our sample are $5 \frac{7}{8}'' \times 1 \frac{1}{16}'' / 14.8\text{cm} \times 1.7\text{cm}$. If students use sticks of a similar size and round the dimensions of the sticks to $6'' \times .78'' / 15\text{cm} \times 2\text{cm}$, how big would their towers be in real life? How big would the stage have to be to fit their set? Ask students to use ratio and proportion to create sketches and word problems to transform their tower designs into life-size sets for **The Hunchback of Notre Dame**.

Cathedral Towers



Cathedral Towers

The cathedral's twin towers are open to the public for visits. The entrance (with admission fee) to the towers is to the left of the front doorways on the Rue du Cloître Notre-Dame, and then there's a climb of 387 steps. Admission allows visitors to see the two towers and the balcony of gargoyles. The famous **Bell Tower** that Victor Hugo's Quasimodo sounded is the North Tower. Visitors can see the cathedral's largest bell, the **Emmanuel Bell**, up close.

Tourists are ultimately rewarded by the spectacular views from the top, one of the great experiences of a visit to Paris. Unlike other famous Paris viewpoints (such as the Eiffel Tower and the Sacré-Coeur), the 70-meter-high towers of Notre-Dame offer a close-up view of the historic center of the city. From this location, the panoramic outlook includes Paris' most famous neighborhoods and monuments: the Ile de la Cité, the Hôtel de Ville, the Louvre, the Sorbonne, the Panthéon, and the Ile Saint-Louis. The view even extends to the modern part of Paris with the skyscrapers of La Défense in the distance. From the towers, there is also an interesting perspective of the cathedral's roof, spire, and the gargoyles.

Gargoyles



Gargoyles

Gargoyles are fearsome sculptures typically found on medieval cathedrals, often designed for use as rain water spouts. Some of the grotesque figures had no functional purpose at all, and many believe that they were created to scare off evil spirits. Several of the gargoyles (called "chimères" in French) on Paris' Notre-Dame Cathedral served as rain water drains. During rainy weather, the monsters act like funnels, their mouths become the spouts of mini-waterfalls. Other Notre-Dame gargoyles are merely decorative. There is a melange of figures, from frightening devilish characters to a graceful stork and charming winged creatures. To see these amazing personages up close, go up the Cathedral Towers (entrance fee) and wander around the **Galerie des Chimères**, the balcony of gargoyles between the twin towers. The entrance to the towers is to the left of Notre-Dame's front doorways on the Rue du Cloître Notre-Dame. Seeing these up close is one of the most delightful things to do in Paris.

RETRIEVED FROM: <http://www.planetware.com/paris/notre-dame-de-paris-f-p-nd.htm>

BOOK THIRD, Excerpt

CHAPTER I. NOTRE-DAME.

The church of Notre-Dame de Paris is still no doubt, a majestic and sublime edifice.... On the face of this aged queen of our cathedrals, by the side of a wrinkle, one always finds a scar. *Tempus edax, homo edacior**; which I should be glad to translate thus: time is blind, man is stupid.

* *Time is a devourer; man, more so.*

If we had leisure to examine with the reader, one by one, the diverse traces of destruction imprinted upon the old church, time's share would be the least, the share of men the most, especially the men of art, since there have been individuals who assumed the title of architects during the last two centuries.

And, in the first place, to cite only a few leading examples...the two black and massive towers with their slate penthouses, harmonious parts of a magnificent whole, superposed in five gigantic stories;—develop themselves before the eye, in a mass and without confusion, with their innumerable details of statuary, carving, and sculpture, joined powerfully to the tranquil grandeur of the whole; a vast symphony in stone, so to speak; the colossal work of one man and one people, all together one and complex, like the Iliads and the Romanceros, whose sister it is; prodigious product of the grouping together of all the forces of an epoch, where, upon each stone, one sees the fancy of the workman disciplined by the genius of the artist start forth in a hundred fashions...And if we ascend the cathedral, without mentioning a thousand barbarisms of every sort,—what has become of that charming little bell tower, which rested upon the point of intersection of the cross-roofs, and which, no less frail and no less bold than its neighbor (also destroyed), the spire of the Sainte-Chapelle, buried itself in the sky, farther forward than the towers, slender, pointed, sonorous, carved in open work. An architect of good taste amputated it (1787), and considered it sufficient to mask the wound with that large, leaden plaster, which resembles a pot cover...

Notre-Dame de Paris is, in particular, a curious specimen of this variety. Each face, each stone of the venerable monument, is a page not only of the history of the country, but of the history of science and art as well...However, all these shades, all these differences, do not affect the surfaces of edifices only. It is art which has changed its skin...Whatever may be the carved and embroidered envelope of a cathedral, one always finds beneath it—in the state of a germ, and of a rudiment at the least—the Roman basilica...Hence, the prodigious exterior variety of these edifices, at whose foundation dwells so much order and unity. The trunk of a tree is immovable; the foliage is capricious.

RETRIEVED FROM: <https://www.gutenberg.org/files/2610/2610-h/2610-h.htm#link2HCH0014>



Interview with Adam Koch of **Adam Koch Associates**, Set and Production Design; Adam Koch was the Set Designer for the Ogunquit Playhouse production of **The Hunchback of Notre Dame**. **JPAS** will be using the Ogunquit Playhouse set for our Production of **The Hunchback of Notre Dame**.

- 1) What guided your design choices for **The Hunchback of Notre Dame**—was it Victor Hugo's novel? Did you look at photographs? Did you visit the location in Paris? What influenced or inspired you while you were developing the designs for **The Hunchback of Notre Dame**?

Set design for me always starts with the story, the original author's work. In this case, I had a lot of inspiration~~Victor Hugo's novel, the script for the musical and the Disney film. Today Notre Dame is one of the most celebrated architectural works in the world. At the time Victor Hugo wrote his novel though, it wasn't; Paris city officials were considering demolition. Victor Hugo wrote his novel in the hope of preserving the place he loved. It was his attempt to sway the decision of city officials. He believed if he could please the hearts of the people, they would look at Notre Dame differently; if he could touch their hearts, he could save the cathedral from demolition. And that's exactly what he did. Victor Hugo loved the architecture of Notre Dame so he wrote about it in great detail~~his novel is a wonderful source of rich visual research.

I was also strongly inspired by the animation in the Disney film. When Disney's animation artists were developing ideas for **The Hunchback of Notre Dame**, they traveled to Paris to research the physical location of Notre Dame. They spent a lot of time in the cathedral exploring the architecture~~the stone, the wood, the metal, the stained glass~~and they brought this rich, visual vocabulary into their designs. As an example, the Rose Window is an elaborate landmark, both for the physical location of Notre Dame Cathedral and for the telling of the story. The Disney animators literally translated their research of real-life things like the Rose Window into their animations. These Disney designs were very inspiring for me.

I was influenced too by Shaun Kerrison (the Director of the Ogunquit Playhouse production of **The Hunchback of Notre Dame**.) He was very inspired by the preface in Victor Hugo's novel. In the preface Victor Hugo writes that while he was exploring the

cathedral he found the word “fate” engraved in the wall. Shaun Kerrison sees fate as the element that draws the story together~~the fate of the cathedral, the fate of life. His vision also guided me as I thought about the designs and created sketches.

- 2) Does the genre of the project -- musical, straight play or opera -- play a significant role in the ultimate shaping of your designs?

On the one hand, I approach every project with the same enthusiasm, the same passion to create great designs that will be visually pleasing to the audience. However, having said that, different fields have different expectations. Musicals like **The Hunchback of Notre Dame** are equal parts visual story and musical story~~the music inspires the designs. The music informs how I use color and musicals in general give me more room to use color in my designs. Straight plays are much more about capturing the subtlety of the story. I use subtler colors when I create designs for these types of productions. Opera is the most abstract. In Opera music is the story, the whole story is told through music. When I am developing designs for an opera, I translate this music into a visual vocabulary that relies purely on color~~the colors I find in the music are the main things that guide my design choices.

- 3) Some designers are inspired by space and materials, how materials alter and occupy the experience of space; do these things inspire you?

I am primarily inspired by texture, how textures look on stage and how texture interacts with light. Different textures reflect light differently. This interaction between light and texture affects the colors we see on stage. Textures in set designs also help guide a Lighting Designer as they choose the colors for their light designs. **The Hunchback of Notre Dame** is all about how different textures interact with each other~~wood, metal, glass. As I was developing designs I would consider things like how the timber for the wooden beams interacts with the metal of the bell or the glass for the Rose Window. These materials are the center of the story. I dove into research on wood, metal and glass to see what I could find and how I could bring these different textures all together into the set pieces.

- 4) Once the designs for a set have been created, how do you use measurement to develop models from the designs?

The first thing is measuring~~I have a tape measure with me at all times. After the point of inspiration is plotted out from sketches, I survey the physical theater space. Every foot is measured so that it all fits together, how the designs will fit within the space of the theater and how the size of each set piece compares on a human scale~~how the sets will look when the performers are moving around on them. I measure with the building of the set in mind. For example, the measurement of a standard sheet of plywood is four feet by eight feet. Sets are built using standard

sheets of plywood. These standard sheets of plywood also have a standard price. I keep that in mind as I measure too~~I want my designs to be cost effective. I keep an account as I go, checking and measuring to make sure I have a clear understanding of both the size of the designs and how much it will cost to make them. I also think about how shapes are measured and how shapes can be used to design and create a set. As an example, the design for the Rose Window is based on the measurement of one shape, a sector. A sector looks like a piece of pie. The design for the whole Rose Window comes from repeating this one sector over and over to create the whole circle of the window. (NOTE: A sector is a "pie-slice" part of a circle - the area between two radiuses and the connecting arc of a circle; definition retrieved from: <https://www.mathsisfun.com/definitions/sector.html>) Creating the window using the same measurement over and over allowed us to calculate both the size and the price of the whole window from just one piece.

I have always been interested in measurement and how it can be used to create things in real-life. As a child, I wanted to create ground plans. I started out by measuring the floor plan of my childhood house. After that, I measured and created ground plans from my neighbors' houses. Measurement has been a way for me to communicate designs I see in my mind, to translate them into real-life objects, like the ground plan for my family's house or a set design for a musical.

5) Along the same lines, how do you use ratio and proportion to develop set pieces from the models?

We use ratio and proportion constantly. Proportion tells us how to make things equal, to convert the size of the drawing to the size of the real-life set. We use ratio to create scale. Scale is very important as we convert sketches; we are constantly comparing the measurement in a drawn design to the measurement of the real-life object we are going to build. We use scale to go from a tiny sketch to a bigger model. Then we create a blue print from this model using a larger scale~~we repeat this process over and over. The goal is always to enlarge the details of that first tiny sketch, to make the details more and more visible (NOTE: Example: in the drawing anything with the size of "1" would have a size of "10" in the real world, so a measurement of 150mm on the drawing would be 1500mm in the real world; Example retrieved from: <https://www.mathsisfun.com/definitions/scale.html>)

ADAM KOCH (Scenic Design) Previously at Ogunquit Playhouse: Sister Act, Saturday Night Fever. Credits across the nation, including the landmark outdoor production of Carousel, The Sleepy Hollow Experience (Serenbe Playhouse); the original Chicago production of Million Dollar Quartet (Apollo Theatre); Hello, Dolly! (Ford's Theater); Miss Saigon, Dreamgirls, Kiss of the Spiderwoman (2008 Helen Hayes nomination), and See What I Wanna See (Signature Theatre); Dreamgirls, Big Fish, A Little Night Music,

Tarzan, Bye Bye Birdie, Sweet Charity, Call Me Madam, Big River (Lyric Theatre of Oklahoma); Hairspray, Baskerville (Syracuse Stage); Bat Boy (1st Stage, 2015 Helen Hayes nomination); A Christmas Carol, Five Course Love, Sweeney Todd (Geva Theatre Center). Off-Broadway credits include: Rooms: A Rock Romance, Loaded, We the People, Pinkalicious, Freckleface Strawberry. Education: Carnegie Mellon University.



Definition of ARCHITECT

1: a person who designs buildings and advises in their construction

RETRIEVED FROM: <https://www.merriam-webster.com/dictionary/architect>

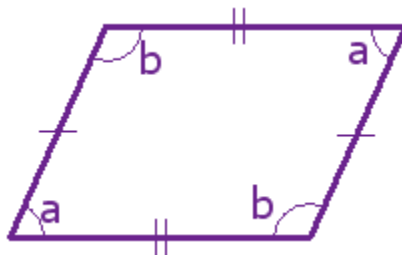
Definition of BUILDER

1: one that builds; *especially* : one that contracts to build and supervises building operations

RETRIVED FROM: <https://www.merriam-webster.com/dictionary/builder>



A **Parallelogram** is a 4-sided flat shape with straight sides where **opposite sides are parallel**.

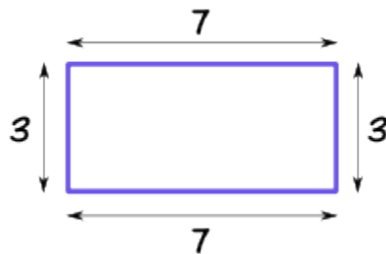


Also:

- opposite sides are equal in length, and
- opposite angles are equal (angles "a" are the same, and angles "b" are the same)

NOTE: Squares, Rectangles and Rhombuses are all Parallelograms!

Perimeter is the distance around a two-dimensional shape.

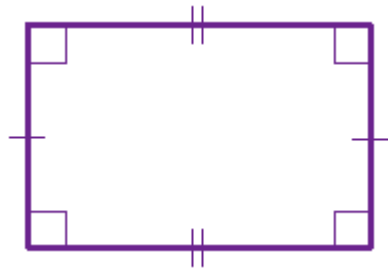


Example: the perimeter of this rectangle is $3+7+3+7 = 20$

The perimeter of a circle is called the circumference.

Area is the size of a surface.

A rectangle is a four-sided flat shape where every angle is a [right angle](#) (90°).



□ means "right angle"
| and || show equal sides



Each internal angle is 90°

Opposite sides are [parallel](#) and of equal length (so it is a [Parallelogram](#)).

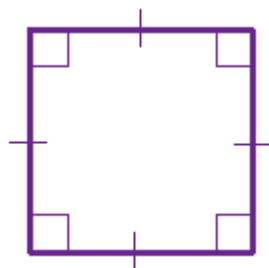


$\text{Area} = w \times h$

w = width

h = height

A Square is a flat shape with 4 equal sides and every angle is a right angle (90°)



□ means "right angle"
| show equal sides



All sides are equal in length



Each internal angle is 90°

$$\text{Area} = a^2$$

a = length of side



Opposite sides are parallel (so it is a Parallelogram).

RETRIEVED FROM: <https://www.mathsisfun.com/geometry/parallelogram.html>



The Towers of Notre Dame

Intersecting Art, Architecture and Mathematics

Comprehension Picture Phrase Match

NAME _____

Sketch a tower in the style of Notre Dame in Paris. Consider one story as 4 groups of 12, or 4×12 .

Write a word problem to represent one story.



One story



The Towers of Notre Dame

Intersecting Art, Architecture and Mathematics

Comprehension Picture Phrase Match, Page 2

NAME _____

Using the model of representing one story as 4×12 , how many groups of 4 are one and a half stories? How many feet are $1\frac{1}{2}$ stories? How many groups of 4 are two stories? How many feet are two stories? Sketch two towers, one that is one and a half stories and one that is two stories. Write and solve words problems for one and a half stories and two stories; be sure to compare stories to feet and include the comparisons between stories and feet for each tower.



One and a half stories



Two stories



Materials you will need to build a model of a tower of Notre Dame.



Choose one or two students to lead a large class demo of how to construct a tower.



Use pencils to construct the model. We also used Halo action figures for gargoyles. The Halo Alpha Crawler has crystals. The Halo Crawler has horns similar to the gargoyles that adorn the towers of Notre Dame.



Use the large group demo of model construction as a review of multiplication: multiples/groups of 2, 3 and 4.



As part of the large class demo also review rectangles have four right angles and area and perimeter.



Once students are partnered, ask them to choose: one student will be the architect and one student will be the builder. Distribute craft sticks, glue sticks, note cards (for the roof and windows,) pencils and rulers to each group of two students (and Halo action figures if you have them.) Ask each group to work together to construct a tower.



Once their towers are constructed, ask students to use a ruler to measure their towers and then use the measurements to calculate the area and perimeter.



Ask students to use the area and perimeter, an index card a pencil and scissors to construct a roof.



Ask students to use the area and perimeter, an index card a pencil and scissors to construct windows.



Once towers are fully constructed (tower, roof and windows,) lead a class gallery tour of the towers. As each group shares how they constructed their tower, ask them to include math information, IE: How tall is their tower—how many groups of 4 did they use? What is the area and perimeter of their roof? How big are their windows?



Ratios

A ratio **compares values**.

A ratio says how much of one thing there is compared to another thing.

3 : 1



There are 3 blue squares to 1 yellow square

Ratios can be shown in different ways:

Using the ":" to separate the values: **3 : 1**

Instead of the ":" we can use the word "to": **3 to 1**

Or write it like a fraction:
$$\frac{3}{1}$$

A ratio can be scaled up:



Here the ratio is also 3 blue squares to 1 yellow square, even though there are more squares.

Using Ratios

The trick with ratios is to always multiply or divide the numbers **by the same value**.

Example:

$4 : 5$ is the same as $4 \times 2 : 5 \times 2 = 8 : 10$

$$\begin{array}{cc} 4 : 5 \\ \downarrow \times 2 \quad \downarrow \times 2 \\ 8 : 10 \end{array}$$

Recipes

Example: A Recipe for pancakes uses 3 cups of flour and 2 cups of milk.

So the ratio of flour to milk is $3 : 2$

To make pancakes for a LOT of people we might need 4 times the quantity, so we multiply the numbers by 4:

$$3 \times 4 : 2 \times 4 = 12 : 8$$

In other words, 12 cups of flour and 8 cups of milk.

The ratio is still the same, so the pancakes should be just as yummy.

"Part-to-Part" and "Part-to-Whole" Ratios

The examples so far have been "part-to-part" (comparing one part to another part).

But a ratio can also show a part compared to the **whole lot**.

Example: There are 5 pups, 2 are boys, and 3 are girls

Part-to-Part:

The ratio of boys to girls is $2:3$ or $\frac{2}{3}$



The ratio of girls to boys is $3:2$ or $\frac{3}{2}$

Part-to-Whole:

The ratio of boys to **all** pups is $2:5$ or $\frac{2}{5}$

The ratio of girls to **all** pups is $3:5$ or $\frac{3}{5}$

RETRIEVED FROM: <https://www.mathsisfun.com/numbers/ratio.html>

K-12 Student Standards for Mathematics» Grade 2

2.G.A.2

Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

2.G.A.3

Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

K-12 Student Standards for Mathematics» Grade 3

3.OA.A.1

Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5×7 .

3.OA.A.3

Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

3.OA.A.4

Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = _ \div 3$, $6 \times 6 = ?$

3.OA.B.5

Apply properties of operations as strategies to multiply and divide.2 Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)

3.OA.B.6

division as an unknown-factor problem. For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.

3.MD.C.7c

Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a + b$ and $a + c$. Use area models to represent the distributive property in mathematical reasoning.

3.MD.D.8

Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

3.OA.A.2

Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.

K-12 Student Standards for Mathematics» Grade 4

4.OA.A.1

Interpret a multiplication equation as a comparison and represent verbal statements of multiplicative comparisons as multiplication equations, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7, and 7 times as many as 5.

4.OA.A.2

Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison (Example: 6 times as many vs. 6 more than).

K-12 Student Standards for Mathematics» Grade 5

5.G.B.3

Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.

5.G.B.4

Classify quadrilaterals in a hierarchy based on properties. (Students will define a trapezoid as a quadrilateral with at least one pair of parallel sides.)

5.MD.A.1

Convert among different-sized standard measurement units within a given measurement and use these conversions in solving multi-step, real-world problems (e.g., convert 5 cm to 0.05 m; 9 ft to 108 in).

K-12 Student Standards for Visual Art» Elementary

Aesthetic Perception

VA-AP-E6 Identify where and how the visual arts are used in daily life and in the community (1, 2, 4)

Historical and Cultural Perspective

VA-HP-E1 Identify the subject, basic style, and culture represented by various works of art (2, 4)





Critical Analysis

VA-CA-E2 Identify images, colors, and other art elements that have specific meanings in cultural contexts (1, 4)



Stained Glass: Telling Stories in Pieces

The musical **The Hunchback of Notre Dame** is a retelling of Victor Hugo's epic story of love. The musical begins as the bells of Notre Dame sound through the famed cathedral in fifteenth-century Paris. Quasimodo, the deformed bell-ringer who longs to be "Out There," observes all of Paris reveling in the Feast of Fools. The rose window of Notre Dame Cathedral feature prominently in Victor Hugo's novel and in the musical adaptation of Hugo's story.

In preschool, students learn about shapes. They learn how to identify them by appearance. As an example, a shape made of straight lines with four equal sides is a square,  a shape made of three straight lines is a triangle,  a shape made of straight lines where the sides opposite each other (parallel) are equal is a rectangle  and so forth. Rose windows, like the one in Notre Dame Cathedral, are based on a shape, the circle . In this lesson, we will expand on students' understanding of shapes, specifically circles, and measurement by exploring them through the lens of an actual place, Notre Dame in Paris, and investigating the many ways this place was used as inspiration for storytelling, local architecture and set designs.

In this lesson, students will become familiar with the physical place that inspired Victor Hugo, Disney animators and Set Designer Adam Koch: Notre Dame Cathedral in Paris, France. Growing up in Paris, Victor Hugo fell in love with gothic architecture and with Notre Dame in particular. The first three chapters of his novel **The Hunchback of Notre Dame** are devoted to describing gothic architecture of his time in great detail, including a description of the rose window. When Disney was adapting Hugo's novel into an animated movie, Disney animators traveled to Paris to research the building design of Notre Dame in order to develop imagery for the film. This included researching and developing designs based on the rose window. Notre Dame's rose window additionally inspired Adam Koch, Set Designer for the Ogunquit Playhouse production of **The Hunchback of Notre Dame**. JPAS will be using the Ogunquit Playhouse set for our Production of **The Hunchback of Notre Dame**. Students will investigate the rose window of Notre Dame, stained glass and rose windows in local New Orleans architecture and use these investigations to create their own rose windows. To do this, students will learn about stained glass and the history of the rose window in architecture, examine the rose window of Notre Dame, read an excerpt from

Victor Hugo's novel, read an interview with **The Hunchback of Notre Dame** Set Designer Adam Koch, learn about French influences in local New Orleans stained glass, view images of local New Orleans architecture that includes rose windows, review information on symmetry, radius, circumference, diameter and sectors, and use all this information to create their own rose window.

Begin this lesson by explaining students will be investigating **The Hunchback of Notre Dame**, exploring the inspiration behind the story, discovering the connections between Notre Dame building design and local New Orleans architecture and using this information to create a work of art inspired by both the story and the real-life location, a rose window. Display the definitions for stained glass, symmetry, and the article on the rose window *where they can be seen by the whole class*, such as on an ELMO or SMART board. As a class, read and discuss the definitions and the article, including a discussion about symmetry within the design of the rose window.

Display the excerpt of the novel **The Hunchback of Notre Dame** by Victor Hugo *where it can be seen by the whole class*, such as on an ELMO or SMART board. As a class, read and discuss the excerpt.

Display the article about the rose window in Notre Dame Cathedral *where it can be seen by the whole class*, such as on an ELMO or SMART board. As a class, read and discuss the article.

Display the interview with **The Hunchback of Notre Dame** Set Designer Adam Koch *where it can be seen by the whole class*, such as on an ELMO or SMART board. As the class reads and discusses the article, consider the following questions: 1) What guided Adam Koch as he developed designs for **The Hunchback of Notre Dame**? 2) How does Adam Koch use materials when he is creating set designs? and 3) How does the genre of a project, musical, straight play or opera, guide Adam Koch's set designs?

Display the image of the rose window from **The Hunchback of Notre Dame** set designed by Adam Koch *where it can be seen by the whole class*, such as on an ELMO or SMART board. As the class looks at and discusses the image, consider the following questions: 1) How did Adam Koch use materials to create his designs for **The Hunchback of Notre Dame**? 2) How did Adam Koch use math to create the design for the rose window? and 3) What is the size of the rose window in comparison to the actors? Explain that in just a moment students will have the opportunity to construct a mini-version of their own rose window.

Next, investigate the connection between French architecture and New Orleans architecture. Explain that New Orleans has a cathedral that was designed by French architect J. N. B. de Pouilly. Ask students if they have ever visited St. Louis Cathedral. If they have, ask them to describe it, particularly anything they can remember about the

stained glass. Record students' descriptions where they can be seen by the whole class, such as on an ELMO or a SMART board.

Display the image of St. Louis Cathedral stained glass where it can be seen by the whole class, such as on an ELMO or a SMART board. Discuss the image. Is there anything in the design of the St. Louis stained glass that is similar to the designs in the rose window of Notre Dame?

Continue to investigate the connection between French architecture and New Orleans, specifically the connection to French architect J. N. B. de Pouilly. Explain that St. Louis Cathedral is not the only church J. N. B. de Pouilly designed. He also designed St. Augustine Church. Display the article about St. Augustine Church where it can be seen by the whole class, such as on an ELMO or a SMART board. Discuss the article.

Deepen the discussion about French architectural influences in New Orleans. Display images of two other New Orleans churches, St. Joseph Roman Catholic Church and Immaculate Conception Jesuit Church where they can be seen by the whole class, such as on an ELMO or a SMART board. Discuss the images. Is there anything in the designs of St. Joseph Roman Catholic Church or Immaculate Conception Jesuit Church that is similar to the designs in the rose window of Notre Dame? Discuss the similarities and differences.

Discuss the shape of a rose window: a circle. Display the Math is Fun information about circles, radius, diameter, circumference and sectors where it can be viewed by the whole class, such as on an ELMO or SMART Board. As a class, read and discuss the information.

Distribute a copy of the Intersecting Art, Architecture and Mathematics Comprehension Picture Phrase Match, Page 1 and Page 2 pencils, rulers, scissors and markers to each student. Ask students to complete both sheets. Once students have created their rose window designs, display them and discuss them. Ask students to use terms like symmetry, sector, quadrant, diameter, radius and circumference when describing the rose window designs they created.

stained glass

NOUN

mass noun

- Coloured glass used to form decorative or pictorial designs, typically by setting contrasting pieces in a lead framework like a mosaic and used for church windows. *as modifier* 'stained-glass windows'

RETRIEVED FROM: https://en.oxforddictionaries.com/definition/stained_glass

NOUN

symmetry noun

- BrE /'sɪmətri/ ; NAmE /'sɪmətri/
- the exact match in size and shape between two halves, parts or sides of something
- the perfect symmetry of the garden design
- The trees break the symmetry of the painting.
- the quality of being very similar or equal

RETRIEVED FROM: <https://www.oxfordlearnersdictionaries.com/us/definition/english/symmetry>



Rose window

ARCHITECTURE

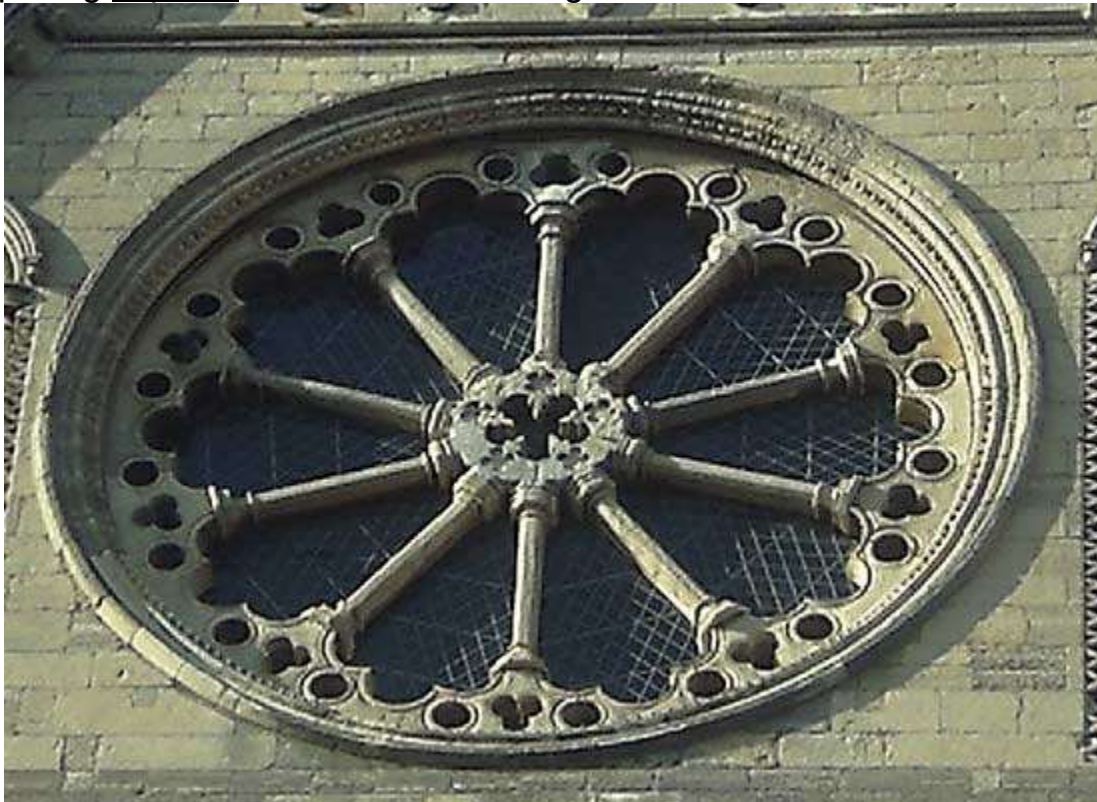
WRITTEN BY:

- [The Editors of Encyclopædia Britannica](#)

Alternative Title: wheel window

Rose window, also called **wheel window**, in [Gothic architecture](#), decorated circular [window](#), often glazed with [stained glass](#). Scattered examples of

decorated circular windows existed in the Romanesque period (Santa Maria in Pomposa, [Italy](#), 10th century). Only toward the middle of the 12th century, however, did the idea appear of making a rich decorative motif out of a round window. At this time the simple [rose](#) window became a distinguishing characteristic of many transitional and early Gothic churches. It was used mainly at the west end of the [nave](#) and the ends of the transepts. The introduction of developed bar [tracery](#) in the 13th century gave a compelling [impetus](#) to rose window design.



Rose window at Beverley Minster church, Beverley, East Riding of Yorkshire, Eng. *Camposanta*

The general scheme of a rose window's tracery consisted of a series of radiating forms, each of which was tipped by a pointed [arch](#) at the outside of the circle. The bars between these forms were joined at the centre by a pierced circle of stone, and the forms themselves frequently were treated like little traceried windows with subsidiary, subdividing bars, arches, and foiled circles. The major examples of this High Gothic type are largely French, in which the rose window achieved its greatest [medieval](#) popularity. Those of the cathedrals of Reims, Amiens, and Notre-Dame at [Paris](#), all of the 13th century, are particularly noteworthy.

RETRIEVED FROM: <https://www.britannica.com/technology/rose-window>

BOOK THIRD, Excerpt

CHAPTER I. NOTRE-DAME.

The church of Notre-Dame de Paris is still no doubt, a majestic and sublime edifice. But, beautiful as it has been preserved in growing old, it is difficult not to sigh, not to wax indignant, before the numberless degradations and mutilations which time and men have both caused the venerable monument to suffer, without respect for Charlemagne, who laid its first stone, or for Philip Augustus, who laid the last.

On the face of this aged queen of our cathedrals, by the side of a wrinkle, one always finds a scar. *Tempus edax, homo edacior**; which I should be glad to translate thus: time is blind, man is stupid.

* *Time is a devourer; man, more so.*

...to cite only a few leading examples, there certainly are few finer architectural pages than this façade, where, successively and at once, the three portals hollowed out in an arch; the brodered and dentated cordon of the eight and twenty royal niches; the immense central rose window, flanked by its two lateral windows, like a priest by his deacon and subdeacon;...

And who put the cold, white panes in the place of those windows, “high in color,” which caused the astonished eyes of our fathers to hesitate between the rose of the grand portal and the arches of the apse?

‘Tis thus that the marvellous art of the Middle Ages has been treated in nearly every country, especially in France. One can distinguish on its ruins three sorts of lesions, all three of which cut into it at different depths; first, time, which has insensibly notched its surface here and there, and gnawed it everywhere; next, political and religious revolution, which, blind and wrathful by nature, have flung themselves tumultuously upon it, torn its rich garment of carving and sculpture, burst its rose windows,

Thus, to sum up the points which we have just indicated, three sorts of ravages to-day disfigure Gothic architecture. Wrinkles and warts on the epidermis; this is the work of time. Deeds of violence, brutalities, contusions, fractures; this is the work of the revolutions from Luther to Mirabeau. Mutilations, amputations, dislocation of the joints, “restorations”; this is the Greek, Roman, and barbarian work of professors according to Vitruvius and Vignole. This magnificent art produced by the Vandals has been slain by the academies. The centuries, the revolutions, which at least devastate with impartiality and grandeur, have been joined by a cloud of school architects, licensed, sworn, and bound by oath; defacing with the discernment and choice of bad taste, substituting the *chicorées* of Louis XV.

RETRIEVED FROM: <https://www.gutenberg.org/files/2610/2610-h/2610-h.htm#link2HCH0014>

Stained-Glass Windows



Stained-Glass Windows [MJM Photographie](#) / photo modified

Notre-Dame has a special celestial aura thanks to its magnificent stained-glass windows. The colorful windows filter jewel-toned light into the otherwise somber space. Many of the windows date to the 13th century and their intricacy exemplifies the finest medieval craftsmanship. The most glorious are the three stunning Rose Windows, considered among the greatest masterpieces of Christian art. The **West Front Rose Window** (created in 1255) represents the story of the Virgin Mary in 80 spectacular Old Testament scenes. The **South Transept Rose Window** (created in 1260) depicts Jesus Christ surrounded by apostles, martyrs, and wise virgins as well as the story of Saint Matthew. More than 12 meters in diameter, the South Rose Window includes 84 panes of exquisitely detailed and beautifully rendered scenes.

Also take time to admire the neo-Gothic **Cloister Windows** on the south side of the choir. Created in the 19th century, this gorgeous series of 18 windows illustrates the Legend of Saint Genevieve, who was the patron saint of Paris. The cathedral also features contemporary stained-glass windows created by **Malraux** in the 1960s.

RETRIEVED FROM: <http://www.planetware.com/paris/notre-dame-de-paris-f-p-nd.htm>



Interview with Adam Koch of **Adam Koch Associates**, Set and Production Design; Adam Koch was the Set Designer for the Ogunquit Playhouse production of **The Hunchback of Notre Dame**. JPAS will be using the Ogunquit Playhouse set for our Production of **The Hunchback of Notre Dame**.

- What guided your design choices for **The Hunchback of Notre Dame**—was it Victor Hugo's novel? Did you look at photographs? Did you visit the location in Paris? What influenced or inspired you while you were developing the designs for **The Hunchback of Notre Dame**?

Set design for me always starts with the story, the original author's work. In this case, I had a lot of inspiration~~Victor Hugo's novel, the script for the musical and the Disney film. Today Notre Dame is one of the most celebrated architectural works in the world. At the time Victor Hugo wrote his novel though, it wasn't; Paris city officials were considering demolition. Victor Hugo wrote his novel in the hope of preserving the place he loved. It was his attempt to sway the decision of city officials. He believed if he could please the hearts of the people, they would look at Notre Dame differently; if he could touch their hearts, he could save the cathedral from demolition. And that's exactly what he did. Victor Hugo loved the architecture of Notre Dame so he wrote about it in great detail~~his novel is a wonderful source of rich visual research.

I was also strongly inspired by the animation in the Disney film. When Disney's animation artists were developing ideas for **The Hunchback of Notre Dame**, they traveled to Paris to research the physical location of Notre Dame. They spent a lot of time in the cathedral exploring the architecture~~the stone, the wood, the metal, the stained glass~~and they brought this rich, visual vocabulary into their designs. As an example, the Rose Window is an elaborate landmark, both for the physical location of Notre Dame Cathedral and for the telling of the story. The Disney animators literally translated their research of real-life things like the Rose Window into their animations. These Disney designs were very inspiring for me.

I was influenced too by Shaun Kerrison (the Director of the Ogunquit Playhouse production of **The Hunchback of Notre Dame**.) He was very inspired by the preface in Victor Hugo's novel. In the preface Victor Hugo writes that while he was exploring the

cathedral he found the word “fate” engraved in the wall. Shaun Kerrison sees fate as the element that draws the story together~~the fate of the cathedral, the fate of life. His vision also guided me as I thought about the designs and created sketches.

- Does the genre of the project -- musical, straight play or opera -- play a significant role in the ultimate shaping of your designs?

On the one hand, I approach every project with the same enthusiasm, the same passion to create great designs that will be visually pleasing to the audience. However, having said that, different fields have different expectations. Musicals like **The Hunchback of Notre Dame** are equal parts visual story and musical story~~the music inspires the designs. The music informs how I use color and musicals in general give me more room to use color in my designs. Straight plays are much more about capturing the subtlety of the story. I use subtler colors when I create designs for these types of productions. Opera is the most abstract. In Opera music is the story, the whole story is told through music. When I am developing designs for an opera, I translate this music into a visual vocabulary that relies purely on color~~the colors I find in the music are the main things that guide my design choices.

- Some designers are inspired by space and materials, how materials alter and occupy the experience of space; do these things inspire you?

I am primarily inspired by texture, how textures look on stage and how texture interacts with light. Different textures reflect light differently. This interaction between light and texture affects the colors we see on stage. Textures in set designs also help guide a Lighting Designer as they choose the colors for their light designs. **The Hunchback of Notre Dame** is all about how different textures interact with each other~~wood, metal, glass. As I was developing designs I would consider things like how the timber for the wooden beams interacts with the metal of the bell or the glass for the Rose Window. These materials are the center of the story. I dove into research on wood, metal and glass to see what I could find and how I could bring these different textures all together into the set pieces.

- Once the designs for a set have been created, how do you use measurement to develop models from the designs?

The first thing is measuring~~I have a tape measure with me at all times. After the point of inspiration is plotted out from sketches, I survey the physical theater space. Every foot is measured so that it all fits together, how the designs will fit within the space of the theater and how the size of each set piece compares on a human scale~~how the sets will look when the performers are moving around on them. I measure with the building of the set in mind. For example, the measurement of a standard sheet of plywood is four feet by eight feet. Sets are built using standard

sheets of plywood. These standard sheets of plywood also have a standard price. I keep that in mind as I measure too~~I want my designs to be cost effective. I keep an account as I go, checking and measuring to make sure I have a clear understanding of both the size of the designs and how much it will cost to make them. I also think about how shapes are measured and how shapes can be used to design and create a set. As an example, the design for the Rose Window is based on the measurement of one shape, a sector. A sector looks like a piece of pie. The design for the whole Rose Window comes from repeating this one sector over and over to create the whole circle of the window. (NOTE: A sector is a "pie-slice" part of a circle - the area between two radiuses and the connecting arc of a circle; definition retrieved from: <https://www.mathsisfun.com/definitions/sector.html>) Creating the window using the same measurement over and over allowed us to calculate both the size and the price of the whole window from just one piece.

I have always been interested in measurement and how it can be used to create things in real-life. As a child, I wanted to create ground plans. I started out by measuring the floor plan of my childhood house. After that, I measured and created ground plans from my neighbors' houses. Measurement has been a way for me to communicate designs I see in my mind, to translate them into real-life objects, like the ground plan for my family's house or a set design for a musical.

- Along the same lines, how do you use ratio and proportion to develop set pieces from the models?

We use ratio and proportion constantly. Proportion tells us how to make things equal, to convert the size of the drawing to the size of the real-life set. We use ratio to create scale. Scale is very important as we convert sketches; we are constantly comparing the measurement in a drawn design to the measurement of the real-life object we are going to build. We use scale to go from a tiny sketch to a bigger model. Then we create a blue print from this model using a larger scale~~we repeat this process over and over. The goal is always to enlarge the details of that first tiny sketch, to make the details more and more visible (NOTE: Example: in the drawing anything with the size of "1" would have a size of "10" in the real world, so a measurement of 150mm on the drawing would be 1500mm in the real world; Example retrieved from: <https://www.mathsisfun.com/definitions/scale.html>)

ADAM KOCH (Scenic Design) Previously at Ogunquit Playhouse: Sister Act, Saturday Night Fever. Credits across the nation, including the landmark outdoor production of Carousel, The Sleepy Hollow Experience (Serenbe Playhouse); the original Chicago production of Million Dollar Quartet (Apollo Theatre); Hello, Dolly! (Ford's Theater); Miss Saigon, Dreamgirls, Kiss of the Spiderwoman (2008 Helen Hayes nomination), and See What I Wanna See (Signature Theatre); Dreamgirls, Big Fish, A Little Night Music,

Tarzan, Bye Bye Birdie, Sweet Charity, Call Me Madam, Big River (Lyric Theatre of Oklahoma); Hairspray, Baskerville (Syracuse Stage); Bat Boy (1st Stage, 2015 Helen Hayes nomination); A Christmas Carol, Five Course Love, Sweeney Todd (Geva Theatre Center). Off-Broadway credits include: Rooms: A Rock Romance, Loaded, We the People, Pinkalicious, Freckleface Strawberry. Education: Carnegie Mellon University.



Image of rose window in set designed by Adam Koch for the Ogunquit Playhouse production of *The Hunchback of Notre Dame*.



Image of stained glass in St. Louis Cathedral, New Orleans. Photo by <https://www.flickr.com/photos/30955400@N00/3560483661>

St. Augustine Church (New Orleans)

St. Augustine Church (New Orleans)



St. Augustine Catholic Church of New Orleans is in the [Archdiocese of New Orleans](#). The [parish](#) was founded in 1841 under the episcopacy of Bishop [Antoine Blanc](#), who later served as New Orleans' first Archbishop. Established by [free people of color](#), who also bought pews for [slaves](#), this is the oldest [African-American Catholic parish](#) in the nation. It was one of the first 26 sites designated on the state's [Louisiana African American Heritage Trail](#).

The property on which St. Augustine stands was once part of the Claude Tremé plantation. It is now one of two Catholic parishes in the [Faubourg Tremé](#). The church is located on Saint Claude Avenue at Governor Nicholls Street, a few blocks from North [Rampart Street](#) and the [French Quarter](#). It was designed by the French architect [J. N. B. de Pouilly](#), who worked on the expansion and renovation of the more famous [St. Louis Cathedral](#) on [Jackson Square](#).

History

When [free people of color](#) organized in the 1830s and received permission from Bishop Antoine Blanc to build a church, the [Ursuline Sisters](#) donated the property, on the condition that the church be named St. Augustine, after one of their patron saints, [Augustine of Hippo](#). The church was dedicated on October 9, 1842. At a time when there were pew fees, free people of color paid for extra pews so that enslaved blacks could also attend.^[1]

"A few months before the October 9, 1842 dedication of St. Augustine Church, the people of color began to purchase pews for their families to sit. Upon hearing of this, white people in the area started a campaign to buy more pews than the colored folks. Thus, The War of the Pews began and was ultimately won by the free people of color who bought three pews to every one purchased by the whites. In an unprecedented social, political and religious move, the colored members also bought all the pews of both side aisles. They gave those pews to the slaves as their exclusive place of worship, a first in the history of slavery in the United States. This mix of the pews resulted in the most integrated congregation in the entire country: one large row of free people of color, one large row of whites with a smattering of ethnics, and two outer aisles of slaves."^[1]

The Tremé has traditionally been an [African-American](#) neighborhood, although it has

included a multicultural community. Along with the neighboring parish of [St. Peter Claver](#), the parish is known in [New Orleans](#) for its association with the black Catholic community. The church hosts the annual [Jazz Mass](#), held in conjunction with the [Satchmo Festival](#), which honors [Louis Armstrong](#)'s birthday.

Famous parishioners have included civil rights activists, musicians and other leaders:^[1]

- [Homer Plessy](#) (1862–1925), civil rights activist ([Plessy v. Ferguson Supreme Court](#) case)
- [Sidney Bechet](#) (1897–1959), jazz clarinetist, soprano saxophonist and composer
- [A. P. Tureaud](#) (1899–1972), civil rights attorney in New Orleans
- [Allison 'Tootie' Montana](#) (1922–2005), [Mardi Gras Indian](#) "Chief of Chiefs"

Because of substantial property losses in the city [after Hurricane Katrina](#) and a decline in population, the diocese decided to close St. Augustine Church, despite the fact that it had been providing extensive community support. Parishioners asked hurricane relief volunteers for help in a protest. They barricaded themselves in the church's rectory to demonstrate against closure. After two weeks, parishioners and church officials agreed on a compromise.^[2]

The church was allowed to remain open after presenting a plan of action to address critical areas, including congregational growth, fund raising, and management improvements. The archdiocese would review its status after 18 months. A documentary film about the protest entitled *Shake the Devil Off* increased publicity for the church's efforts to survive.^[3]

In May 2008 St. Augustine Church received a \$75,000 grant from the [National Trust for Historic Preservation](#) and [American Express](#) to aid in needed renovations to the historic parish hall, a center of community services. Enhanced use of the parish hall for community services was integral to the church's plans for the future.^[4] ^[5] In March 2009, St. Augustine Church announced that due to its progress, the archdiocese had decided it would not be closed and had taken the church off probation.^[6]

See also

- [New Orleans African American Museum](#)
- [Tremé](#)

References

1. [St. Augustine Catholic Church of New Orleans](#), Official Website, accessed 8 Jul 2008
2. ["Historic African-American Church Reopened after Weeks of Protest & Rectory Sit-In"](#), Democracy Now, 10 Apr 2006, accessed 9 Jul 2008
3. [Shake the Devil Off](#), Official Website
4. [Chaz Muth, "Grants ensure future for two New Orleans Catholic landmarks"](#), Catholic News Service, 21 May 2008
5. [New Orleans Initiative, St. Augustine Parish Hall](#), Partners in Preservation, accessed 16 Apr 2009

6. [Matthew Hinton, "St. Augustine Church Counts Its Blessings"](#), The Times-Picayune, 1 Mar 2009, accessed 16 Apr 2009

External links



Wikimedia Commons has media related to [St. Augustine Church, New Orleans](#).

- [Molly Peterson, "Black Catholics in Standoff over Closing of Parish"](#), National Public Radio
- ["Historic African-American Church Reopened after Weeks of Protest & Rectory Sit-In"](#), Democracy Now, 10 Apr 2006
- [Shake the Devil Off, Official Website](#)
- ["Historic New Orleans Church Gets Reprieve"](#), CBS News, 9 Apr 2006
- [Louisiana's African American Heritage Trail](#)

RETRIEVED FROM:

[https://www.revolvy.com/main/index.php?s=St.%20Augustine%20Church%20\(New%20Orleans\)&item_type=topic](https://www.revolvy.com/main/index.php?s=St.%20Augustine%20Church%20(New%20Orleans)&item_type=topic)



Images of rose window in St. Joseph Roman Catholic Church, New Orleans. Photos by Karel Sloane-Boekbinder.



Images of rose window in Immaculate Conception Jesuit Church, New Orleans. Photos by Karel Sloane-Boekbinder.



Circle

A circle is easy to make:

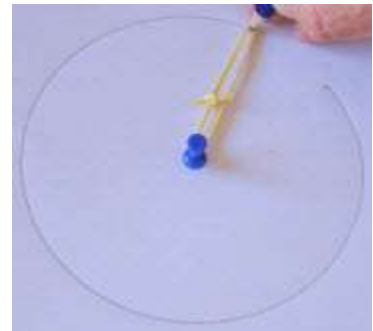
Draw a curve that is "radius" away from a central point.

And so:

All points are the same distance from the center.

You Can Draw It Yourself

Put a pin in a board, put a loop of string around it, and insert a pencil into the loop. Keep the string stretched and draw the circle!



Radius, Diameter and Circumference



$$\frac{\text{Circumference}}{\text{Diameter}} = \pi = 3.14159...$$

The **Radius** is the distance from the center outwards.

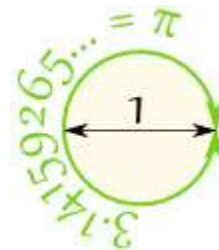
The **Diameter** goes straight across the circle, through the center.

The **Circumference** is the distance once around the circle.

And here is the really cool thing:

When we divide the circumference by the diameter we get
3.141592654...
which is the number π ([Pi](#))

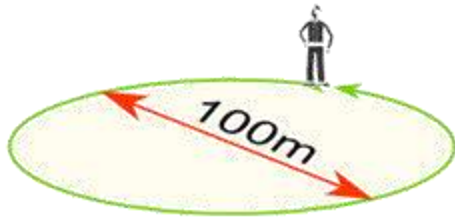
So when the diameter is 1, the circumference is
3.141592654...



We can say:

$$\text{Circumference} = \pi \times \text{Diameter}$$

Example: You walk around a circle which has a diameter of 100m, how far have you walked?



$$\begin{aligned}\text{Distance walked} &= \text{Circumference} = \pi \times 100\text{m} \\ &= \mathbf{314\text{m}} \text{ (to the nearest m)}\end{aligned}$$

Also note that the Diameter is twice the Radius:

$$\text{Diameter} = 2 \times \text{Radius}$$

And so this is also true:

$$\text{Circumference} = 2 \times \pi \times \text{Radius}$$

Remembering

The length of the words may help you remember:

- **Radius** is the shortest word
- **Diameter** is longer (and is $2 \times \text{Radius}$)
- **Circumference** is the longest (and is $\pi \times \text{Diameter}$)

Definition

The circle is a plane shape (two dimensional):

And **the definition** of a circle is:

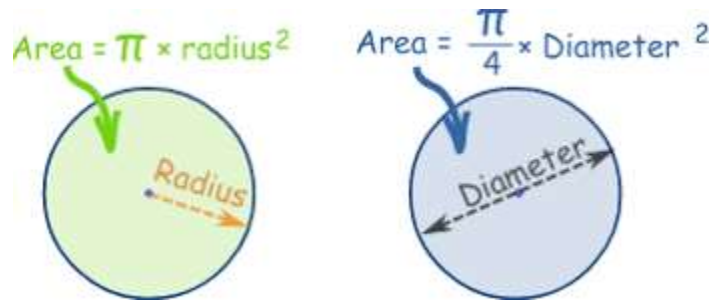


The set of all points on a plane that are a fixed distance from a center.

Area

The [area of a circle](#) is π times the radius squared, which is written:

$$A = \pi r^2$$



To help you remember think "Pie Are Squared"
(even though pies are usually round)

Or, using the Diameter:

$$A = (\pi/4) \times D^2$$

Example: What is the area of a circle with radius of 1.2 m ?

$$A = \pi \times r^2$$

$$A = \pi \times 1.2^2$$

$$A = \pi \times (1.2 \times 1.2)$$

$$A = 3.14159... \times 1.44 = \mathbf{4.52} \text{ (to 2 decimals)}$$

Names

Because people have studied circles for thousands of years special names have come about.

Nobody wants to say "that line that starts at one side of the circle, goes through the center and ends on the other side" when a word like "Diameter" will do.

So here are the most common special names:

Lines

A line that goes from one point to another on the circle's circumference is called a **Chord**.

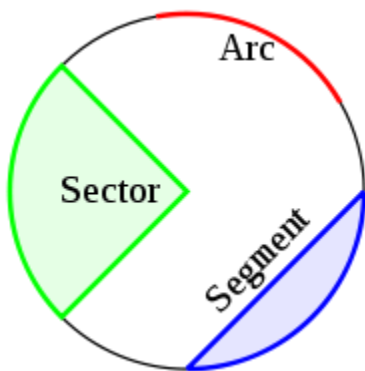
If that line passes through the center it is called a **Diameter**.

A line that "just touches" the circle as it passes by is called a **Tangent**.

And a part of the circumference is called an **Arc**.

Slices

There are two main "slices" of a circle.

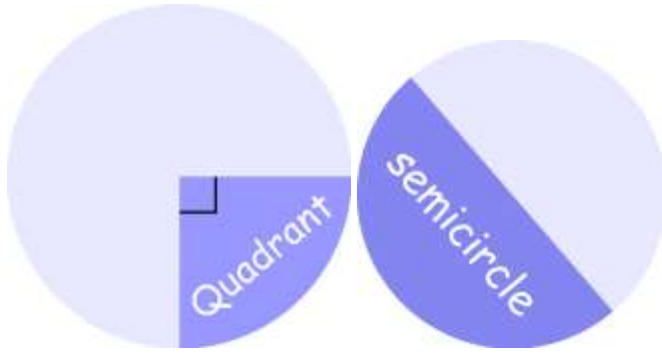


The "pizza" slice is called a Sector.

And the slice made by a chord is called a Segment.

Common Sectors

The Quadrant and Semicircle are two special types of Sector:



Quarter of a circle is called a **Quadrant**.

Half a circle is called a **Semicircle**.

RETRIEVED FROM: <https://www.mathsisfun.com/geometry/circle.html>



Stained Glass: Telling Stories in Pieces

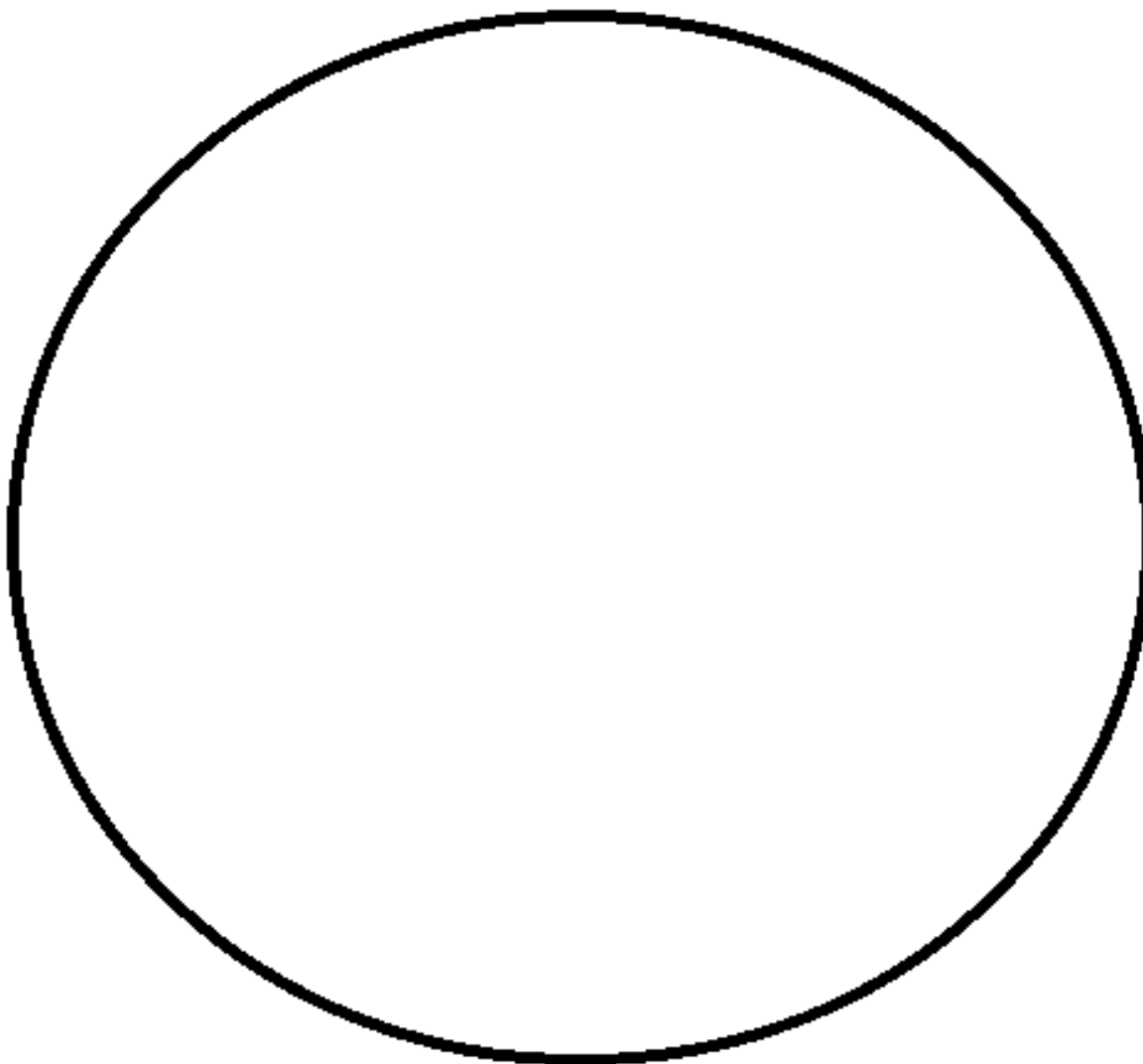
Intersecting Art, Architecture and Mathematics

Comprehension Picture Phrase Match

NAME _____

Sketch a quadrant. Sketch the diameter and radius of this circle. Use a ruler to measure the diameter and the radius. Write a word problem to represent the diameter of the circle. Use the formula $\text{Diameter} = 2 \times \text{Radius}$ to write the word problem. Write a second word problem to represent the circumference. Use the formula $\text{Circumference} = 2 \times \pi \times \text{Radius}$ to write the word problem.

Sketch a sector of the circle; use scissors cut out the sector.





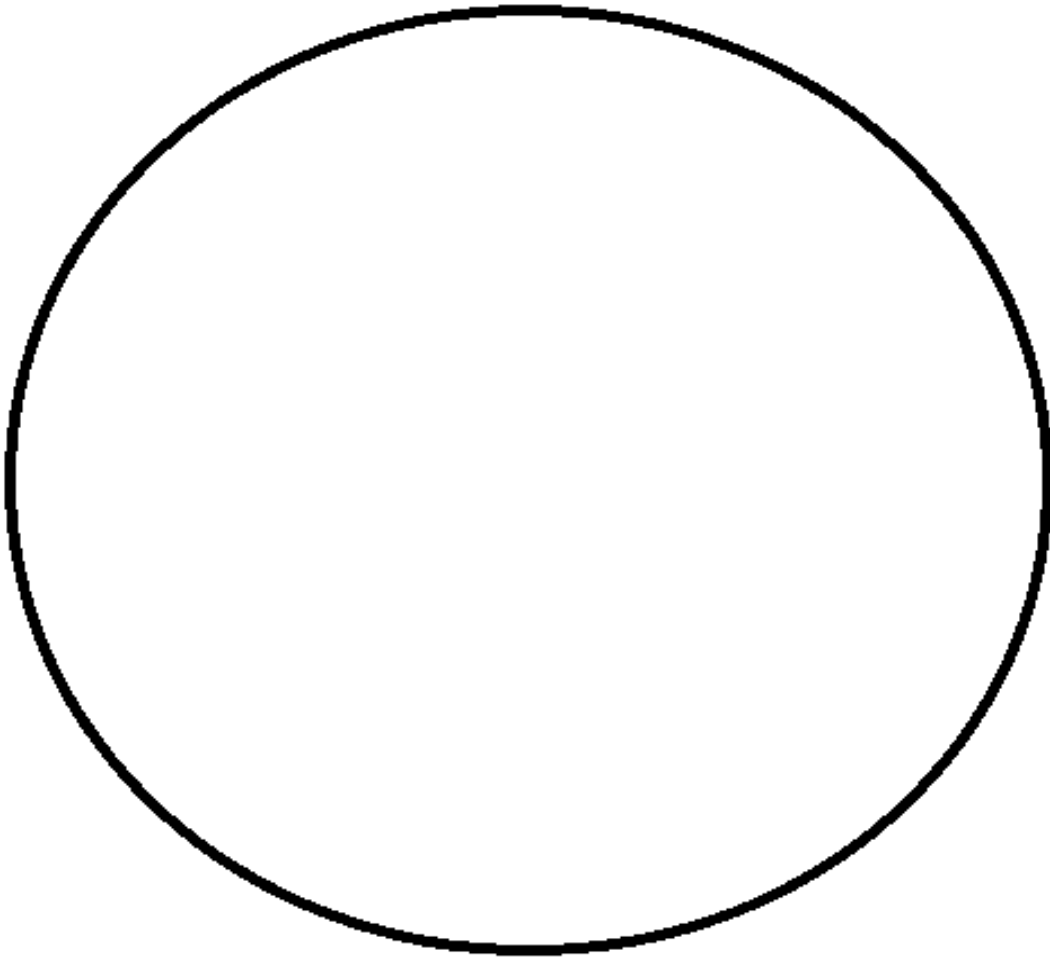
Stained Glass: Telling Stories in Pieces

Intersecting Art, Architecture and Mathematics

Comprehension Picture Phrase Match, Page 2

NAME _____

Using the sector you cut out from the other circle make a rose window. Using Adam Koch's technique, after you trace one sector, lay the sector pattern next to it so that it touches the edge. Repeat this process until the circle is divided into equal sectors. Count them—how many equal sectors are there? Use markers to create designs in the sectors. Make sure there is symmetry in the designs and that they are connected across sectors and quadrants, just like in the Notre Dame rose window and in Adam Koch's set design.



K-12 Student Standards for Mathematics» Grade 2

2.G.A.3

Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

2.MD.A.1

Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

2.MD.A.2

Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.

2.G.A.3

Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

K-12 Student Standards for Mathematics» Grade 3

3.OA.A.3

Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

3.OA.D.8

Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

3.MD.B.3

Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.

3.G.A.2

Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as $\frac{1}{4}$ of the area of the shape.

K-12 Student Standards for Mathematics» Grade 4

4.OA.A.2

Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison (Example: 6 times as many vs. 6 more than).

4.G.A.3

Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

K-12 Student Standards for Mathematics» Grade 5

5.G.B.3

Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.

K-12 Student Standards for Visual Art» Elementary

Aesthetic Perception

VA-AP-E6 Identify where and how the visual arts are used in daily life and in the community (1, 2, 4)

Historical and Cultural Perspective

VA-HP-E1 Identify the subject, basic style, and culture represented by various works of art (2, 4)

Critical Analysis

VA-CA-E2 Identify images, colors, and other art elements that have specific meanings in cultural contexts (1, 4)



Describe Your Favorite Place

By Karel Sloane-Boekbinder

This musical is a retelling of Victor Hugo's epic story of love. The musical begins as the bells of Notre Dame sound through the famed cathedral in fifteenth-century Paris. Quasimodo, the deformed bell-ringer who longs to be "Out There," observes all of Paris reveling in the Feast of Fools.

In this lesson, students will become familiar with the physical place that inspired Victor Hugo, Disney animators and Set Designer Adam Koch: Notre Dame Cathedral in Paris, France and explore how the power of personal voice in writing can be used to shape public opinion. Growing up in Paris, Victor Hugo fell in love with gothic architecture and with Notre Dame in particular. The first three chapters of his novel **The Hunchback of Notre Dame** are devoted to describing gothic architecture of his time in great detail. Victor Hugo wrote to save his favorite place. His love of gothic architecture and Notre Dame in particular shaped his writing, and his writing in turn shaped public opinion. At the time Hugo wrote his novel, Paris city officials were considering demolishing the cathedral. Hugo was able to turn the tide and change the fate of his favorite place, Notre Dame, because he wrote about what he loved and he used this writing to touch the hearts of the people that read it.

In this lesson, students will become familiar with Victor Hugo's novel, the place that inspired it and have the opportunity to think about their favorite place. To do this, students will read articles about Victor Hugo's inspiration, read an excerpt from Victor Hugo's novel **The Hunchback of Notre Dame**, review how to write good descriptions and then create their own writing about a favorite place of theirs.

Begin this lesson by explaining students will be investigating the novel **The Hunchback of Notre Dame**, investigating the place that inspired the author and creating their own writing inspired by both the story and a real-life location that is important to them.

Discuss the idea of physical environment and how this can inspire setting. As a class, brainstorm about environments students are familiar with, IE: the area around their home, the area around their school, places they go with their family, etc. Record student responses about settings they are familiar with where they can be visible to the whole class, such as on an ELMO or SMART board.

Continue this discussion by exploring how place influenced Victor Hugo as he wrote his novel **The Hunchback of Notre Dame**. Explain that growing up in Paris, the author Victor Hugo fell in love with gothic architecture and with Notre Dame in particular. The first three chapters of his novel **The Hunchback of Notre Dame** are devoted to describing gothic architecture of his time in great detail. Victor Hugo wrote to save his favorite place. His love of gothic architecture and Notre Dame in particular shaped his writing, and his writing in turn shaped public opinion. At the time Hugo wrote his novel, Paris city officials were considering demolishing the cathedral. Hugo was able to turn the tide and change the fate of his favorite place, Notre Dame, because he wrote about what he loved and he used this writing to touch the hearts of the people that read it. Display the article **HOW DID VICTOR HUGO SAVE THE FAMOUS CATHEDRAL OF NOTRE DAME FROM DEMOLITION?** where it can be visible to the whole class, such as on an ELMO or SMART board. Discuss the article.

Next, display the article **DIRE STATE AND VICTOR HUGO** where it can be visible to the whole class, such as on an ELMO or SMART board. Discuss the article.

Follow this by displaying the excerpt of the novel **The Hunchback of Notre Dame** by Victor Hugo where it can be seen by the whole class, such as on an ELMO or SMART board. As a class, read and discuss the excerpt.

Explain students will now have opportunities to express opinions about their own favorite place. Distribute a copy of **Describe your Favorite Place** Essay Organizer and a pencil to each student. Display **How to Write Vivid Descriptions** where it can be seen by the whole class, such as on an ELMO or SMART board. As a class, read and discuss **How to Write Vivid Descriptions**. Follow the discussion by asking students to complete their **Describe your Favorite Place** Essay Organizer.

Once students have completed their **Describe your Favorite Place** Essay Organizer distribute a copy of the **Describe your Favorite Place** Essay Organizer 2 to each student. Ask students to use the first Essay Organizer to help them complete the **Describe your Favorite Place** Essay Organizer 2.

Once students have completed their **Describe your Favorite Place** Essay Organizer 2, distribute paper to each student. Ask them to use their essay organizers to help them write an essay. Once students have completed their essays, give students opportunities to read their essays aloud to the class.

HOW DID VICTOR HUGO SAVE THE FAMOUS CATHEDRAL OF NOTRE DAME FROM DEMOLITION?

NADEAU&BARLOW — 12/09/2011

Excerpt taken from the book *The Story of French* (Ch. 8)

The son of a general in Napoleon's army, Hugo was only fourteen when he wrote in his schoolbook that he would be "Chateaubriand or nothing." He started his first literary journal at age seventeen and soon made his mark with poems and a series of popular novels. He wrote with an ease and freedom untypical of his predecessors. At twenty-one Hugo earned himself a royal pension. His first play, *Cromwell*, turned him into a celebrity. Its preface—in which Hugo made a plea for what he called *le grotesque* (popular reality) and against the classical canon of unity of time, place and action—was considered the manifesto of French Romanticism. "All too often, the cage of unity contains a mere skeleton," he wrote. As to the play itself, it was anything but classical, with hundreds of characters and dozens of locations.

At about the same time Hugo began experimenting with a new approach to prose, based on telling the story of less than ideal characters—a poor bohemian girl, a deformed bell-ringer and a lecherous archdeacon—the three pillars of *The Hunchback of Notre Dame*. Few fans of the novel, which has inspired several successful films, know that Hugo wrote it to save the famous Gothic cathedral of Notre Dame from demolition. During the Revolution Notre Dame had been used as a saltpetre plant. By the nineteenth century it had suffered so much neglect that builders wanted to reuse its stones for bridge construction. Gothic art was then regarded as ugly and offensive; so Hugo's choice of the location was deliberate: it linked the grotesque characters with the ugly art. The first three chapters of the novel are a plea to preserve Gothic architecture—in Hugo's words, a "gigantic book of stone," which he, as a Romantic, found beautiful.

RETRIEVED FROM: <http://nadeaubarlow.com/how-did-victor-hugo-save-the-cathedral-of-notre-dame/>

image NOTRE DAME DE PARIS SROUND 1840, BEFORE
THE RECONSTRUCTION / VINCENT CHEVALIER, [WIKIMEDIA
COMMONS](#), PUBLIC DOMAIN

DIRE STATE AND VICTOR HUGO

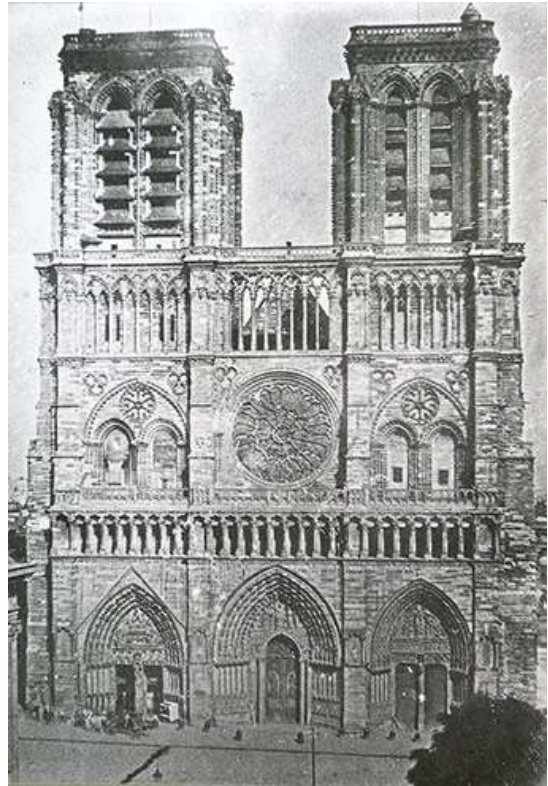
By the 1820s - 1830s the beautiful cathedral was close to collapse and city officials considered to remove it.

The successful novelist **Victor Hugo** wrote a novel "Notre-Dame de Paris" which was specially dedicated to this building. Remember - you may be were bored by reading the first hundred pages describing the cathedral in every detail - and only then started the tale about the Quasimodo and Esmeralda! Well - it was worth your time and time of many generations to come because it did wonders!

This popular novel was one of the factors which made the public aware of the heritage value of the cathedral. First half of the 19th century was the time when the values of the past were in trend - and thus, urged by the popular opinion, the authorities decided to save this beautiful building.

RETRIEVED FROM:

<http://www.wondermondo.com/Countries/E/France/IleDeFrance/NotreDameParis.htm>



BOOK THIRD.

CHAPTER I. NOTRE-DAME.

The church of Notre-Dame de Paris is still no doubt, a majestic and sublime edifice. But, beautiful as it has been preserved in growing old, it is difficult not to sigh, not to wax indignant, before the numberless degradations and mutilations which time and men have both caused the venerable monument to suffer, without respect for Charlemagne, who laid its first stone, or for Philip Augustus, who laid the last.

On the face of this aged queen of our cathedrals, by the side of a wrinkle, one always finds a scar. *Tempus edax, homo edacior**; which I should be glad to translate thus: time is blind, man is stupid.

* *Time is a devourer; man, more so.*

If we had leisure to examine with the reader, one by one, the diverse traces of destruction imprinted upon the old church, time's share would be the least, the share of men the most, especially the men of art, since there have been individuals who assumed the title of architects during the last two centuries.

And, in the first place, to cite only a few leading examples, there certainly are few finer architectural pages than this façade, where, successively and at once, the three portals hollowed out in an arch; the brodered and dentated cordon of the eight and twenty royal niches; the immense central rose window, flanked by its two lateral windows, like a priest by his deacon and subdeacon; the frail and lofty gallery of trefoil arcades, which supports a heavy platform above its fine, slender columns; and lastly, the two black and massive towers with their slate penthouses, harmonious parts of a magnificent whole, superposed in five gigantic stories;—develop themselves before the eye, in a mass and without confusion, with their innumerable details of statuary, carving, and sculpture, joined powerfully to the tranquil grandeur of the whole; a vast symphony in stone, so to speak; the colossal work of one man and one people, all together one and complex, like the Iliads and the Romancers, whose sister it is; prodigious product of the grouping together of all the forces of an epoch, where, upon each stone, one sees the fancy of the workman disciplined by the genius of the artist start forth in a hundred fashions; a sort of human creation, in a word, powerful and fecund as the divine creation of which it seems to have stolen the double character,—variety, eternity.

And what we here say of the façade must be said of the entire church; and what we say of the cathedral church of Paris, must be said of all the churches of Christendom in the Middle Ages. All things are in place in that art, self-created, logical, and well proportioned. To measure the great toe of the foot is to measure the giant.

Let us return to the façade of Notre-Dame, as it still appears to us, when we go piously to admire the grave and puissant cathedral, which inspires terror, so its chronicles assert: *quae mole sua terrorem incutit spectantibus*.

Three important things are to-day lacking in that façade: in the first place, the staircase of eleven steps which formerly raised it above the soil; next, the lower series of statues which occupied the niches of the three portals; and lastly the upper series, of the twenty-eight most ancient kings of France, which garnished the gallery of the first story, beginning with Childebert, and ending with Phillip Augustus, holding in his hand “the imperial apple.”

Time has caused the staircase to disappear, by raising the soil of the city with a slow and irresistible progress; but, while thus causing the eleven steps which added to the majestic height of the edifice, to be devoured, one by one, by the rising tide of the pavements of Paris,—time has bestowed upon the church perhaps more than it has taken away, for it is time which has spread over the façade that sombre hue of the centuries which makes the old age of monuments the period of their beauty.

But who has thrown down the two rows of statues? who has left the niches empty? who has cut, in the very middle of the central portal, that new and bastard arch? who has dared to frame therein that commonplace and heavy door of carved wood, à la Louis XV., beside the arabesques of Biscornette? The men, the architects, the artists of our day.

And if we enter the interior of the edifice, who has overthrown that colossus of Saint Christopher, proverbial for magnitude among statues, as the grand hall of the Palais de Justice was among halls, as the spire of Strasbourg among spires? And those myriads of statues, which peopled all the spaces between the columns of the nave and the choir, kneeling, standing, equestrian, men, women, children, kings, bishops, gendarmes, in stone, in marble, in gold, in silver, in copper, in wax even,—who has brutally swept them away? It is not time.

And who substituted for the ancient gothic altar, splendidly encumbered with shrines and reliquaries, that heavy marble sarcophagus, with angels’ heads and clouds, which seems a specimen pillaged from the Val-de-Grâce or the Invalides? Who stupidly sealed that heavy anachronism of stone in the Carlovingian pavement of Hercandus? Was it not Louis XIV., fulfilling the request of Louis XIII.?

And who put the cold, white panes in the place of those windows, “high in color,” which caused the astonished eyes of our fathers to hesitate between the rose of the grand portal and the arches of the apse? And what would a sub-chanter of the sixteenth century say, on beholding the beautiful yellow wash, with which our archiepiscopal vandals have desmeared their cathedral? He would remember that it was the color with which the hangman smeared “accursed” edifices; he would recall the Hôtel du Petit-Bourbon, all smeared thus, on account of the constable’s treason. “Yellow, after all, of so good a quality,” said Sauval, “and so well recommended, that more than a century has not yet caused it to lose its color.” He would think that the sacred place had become infamous, and would flee.

And if we ascend the cathedral, without mentioning a thousand barbarisms of every sort,—what has become of that charming little bell tower, which rested upon the point of intersection of the cross-roofs, and which, no less frail and no less bold than its neighbor (also destroyed), the spire of the Sainte-Chapelle, buried itself in the sky, farther forward than the towers, slender, pointed, sonorous, carved in open work. An architect of good taste amputated it (1787), and considered it sufficient to mask the wound with that large, leaden plaster, which resembles a pot cover.

‘Tis thus that the marvellous art of the Middle Ages has been treated in nearly every country, especially in France. One can distinguish on its ruins three sorts of lesions, all three of which cut into it at different depths; first, time, which has insensibly notched its surface here and there, and gnawed it everywhere; next, political and religious revolution, which, blind and wrathful by nature, have flung themselves tumultuously upon it, torn its rich garment of carving and sculpture, burst its rose windows, broken its necklace of arabesques and tiny figures, torn out its statues, sometimes because of their mitres, sometimes because of their crowns; lastly, fashions, even more grotesque and foolish, which, since the anarchical and splendid deviations of the Renaissance, have followed each other in the necessary decadence of architecture. Fashions have wrought more harm than revolutions. They have cut to the quick; they have attacked the very bone and framework of art; they have cut, slashed, disorganized, killed the edifice, in form as in the symbol, in its consistency as well as in its beauty. And then they have made it over; a presumption of which neither time nor revolutions at least have been guilty. They have audaciously adjusted, in the name of “good taste,” upon the wounds of gothic architecture, their miserable gewgaws of a day, their ribbons of marble, their pompons of metal, a veritable leprosy of egg-shaped ornaments, volutes, whorls, draperies, garlands, fringes, stone flames, bronze clouds, pudgy cupids, chubby-cheeked cherubim, which begin to devour the face of art in the oratory of Catherine de Medicis, and cause it to expire, two centuries later, tortured and grimacing, in the boudoir of the Dubarry.

Thus, to sum up the points which we have just indicated, three sorts of ravages to-day disfigure Gothic architecture. Wrinkles and warts on the epidermis; this is the work of time. Deeds of violence, brutalities, contusions, fractures; this is the work of the revolutions from Luther to Mirabeau. Mutilations, amputations, dislocation of the joints, “restorations”; this is the Greek, Roman, and barbarian work of professors according to Vitruvius and Vignole. This magnificent art produced by the Vandals has been slain by the academies. The centuries, the revolutions, which at least devastate with impartiality and grandeur, have been joined by a cloud of school architects, licensed, sworn, and bound by oath; defacing with the discernment and choice of bad taste, substituting the *chicorées* of Louis XV. for the Gothic lace, for the greater glory of the Parthenon. It is the kick of the ass at the dying lion. It is the old oak crowning itself, and which, to heap the measure full, is stung, bitten, and gnawed by caterpillars.

How far it is from the epoch when Robert Cenalis, comparing Notre-Dame de Paris to the famous temple of Diana at Ephesus, *so much lauded by the ancient pagans*, which Erostatus *has* immortalized, found the Gallic temple “more excellent in length, breadth, height, and structure.” *

* *Histoire Gallicane*, liv. II. Periode III. fo. 130, p. 1.

Notre-Dame is not, moreover, what can be called a complete, definite, classified monument. It is no longer a Romanesque church; nor is it a Gothic church. This edifice is not a type. Notre-Dame de Paris has not, like the Abbey of Tournus, the grave and massive frame, the large and round vault, the glacial bareness, the majestic simplicity of the edifices which have the rounded arch for their progenitor. It is not, like the Cathedral of Bourges, the magnificent, light, multiform, tufted, bristling efflorescent product of the pointed arch. Impossible to class it in that ancient family of sombre, mysterious churches, low and crushed as it were by the round arch, almost Egyptian, with the exception of the ceiling; all hieroglyphics, all sacerdotal, all symbolical, more loaded in their ornaments, with lozenges and zigzags, than with flowers, with flowers than with animals, with animals than with men; the work of the architect less than of the bishop; first transformation of art, all impressed with theocratic and military discipline, taking root in the Lower Empire, and stopping with the time of William the Conqueror. Impossible to place our Cathedral in that other family of lofty, aerial churches, rich in painted windows and sculpture; pointed in form, bold in attitude; communal and bourgeois as political symbols; free, capricious, lawless, as a work of art; second transformation of architecture, no longer hieroglyphic, immovable and sacerdotal, but artistic, progressive, and popular, which begins at the return from the crusades, and ends with Louis IX. Notre-Dame de Paris is not of pure Romanesque, like the first; nor of pure Arabian race, like the second.

It is an edifice of the transition period. The Saxon architect completed the erection of the first pillars of the nave, when the pointed arch, which dates from the Crusade, arrived and placed itself as a conqueror upon the large Romanesque capitals which should support only round arches. The pointed arch, mistress since that time, constructed the rest of the church. Nevertheless, timid and inexperienced at the start, it sweeps out, grows larger, restrains itself, and dares no longer dart upwards in spires and lancet windows, as it did later on, in so many marvellous cathedrals. One would say that it were conscious of the vicinity of the heavy Romanesque pillars.

However, these edifices of the transition from the Romanesque to the Gothic, are no less precious for study than the pure types. They express a shade of the art which would be lost without them. It is the graft of the pointed upon the round arch.

Notre-Dame de Paris is, in particular, a curious specimen of this variety. Each face, each stone of the venerable monument, is a page not only of the history of the country, but of the history of science and art as well. Thus, in order to indicate here only the principal details, while the little Red Door almost attains to the limits of the Gothic delicacy of the fifteenth century, the pillars of the nave, by their size and weight, go

back to the Carolingian Abbey of Saint-Germain des Prés. One would suppose that six centuries separated these pillars from that door. There is no one, not even the hermetics, who does not find in the symbols of the grand portal a satisfactory compendium of their science, of which the Church of Saint-Jacques de la Boucherie was so complete a hieroglyph. Thus, the Roman abbey, the philosophers' church, the Gothic art, Saxon art, the heavy, round pillar, which recalls Gregory VII., the hermetic symbolism, with which Nicolas Flamel played the prelude to Luther, papal unity, schism, Saint-Germain des Prés, Saint-Jacques de la Boucherie,—all are mingled, combined, amalgamated in Notre-Dame. This central mother church is, among the ancient churches of Paris, a sort of chimera; it has the head of one, the limbs of another, the haunches of another, something of all.

We repeat it, these hybrid constructions are not the least interesting for the artist, for the antiquarian, for the historian. They make one feel to what a degree architecture is a primitive thing, by demonstrating (what is also demonstrated by the cyclopean vestiges, the pyramids of Egypt, the gigantic Hindoo pagodas) that the greatest products of architecture are less the works of individuals than of society; rather the offspring of a nation's effort, than the inspired flash of a man of genius; the deposit left by a whole people; the heaps accumulated by centuries; the residue of successive evaporations of human society,—in a word, species of formations. Each wave of time contributes its alluvium, each race deposits its layer on the monument, each individual brings his stone. Thus do the beavers, thus do the bees, thus do men. The great symbol of architecture, Babel, is a hive.

Great edifices, like great mountains, are the work of centuries. Art often undergoes a transformation while they are pending, *pendent opera interrupta*; they proceed quietly in accordance with the transformed art. The new art takes the monument where it finds it, incrusts itself there, assimilates it to itself, develops it according to its fancy, and finishes it if it can. The thing is accomplished without trouble, without effort, without reaction,—following a natural and tranquil law. It is a graft which shoots up, a sap which circulates, a vegetation which starts forth anew. Certainly there is matter here for many large volumes, and often the universal history of humanity in the successive engrafting of many arts at many levels, upon the same monument. The man, the artist, the individual, is effaced in these great masses, which lack the name of their author; human intelligence is there summed up and totalized. Time is the architect, the nation is the builder.

Not to consider here anything except the Christian architecture of Europe, that younger sister of the great masonries of the Orient, it appears to the eyes as an immense formation divided into three well-defined zones, which are superposed, the one upon the other: the Romanesque zone*, the Gothic zone, the zone of the Renaissance, which we would gladly call the Greco-Roman zone. The Roman layer, which is the most ancient and deepest, is occupied by the round arch, which reappears, supported by the Greek column, in the modern and upper layer of the

Renaissance. The pointed arch is found between the two. The edifices which belong exclusively to any one of these three layers are perfectly distinct, uniform, and complete. There is the Abbey of Jumièges, there is the Cathedral of Reims, there is the Sainte-Croix of Orleans. But the three zones mingle and amalgamate along the edges, like the colors in the solar spectrum. Hence, complex monuments, edifices of gradation and transition. One is Roman at the base, Gothic in the middle, Greco-Roman at the top. It is because it was six hundred years in building. This variety is rare. The donjon keep of d'Etampes is a specimen of it. But monuments of two formations are more frequent. There is Notre-Dame de Paris, a pointed-arch edifice, which is imbedded by its pillars in that Roman zone, in which are plunged the portal of Saint-Denis, and the nave of Saint-Germain des Prés. There is the charming, half-Gothic chapter-house of Bochart, where the Roman layer extends half way up. There is the cathedral of Rouen, which would be entirely Gothic if it did not bathe the tip of its central spire in the zone of the Renaissance.**

** This is the same which is called, according to locality, climate, and races, Lombard, Saxon, or Byzantine. There are four sister and parallel architectures, each having its special character, but derived from the same origin, the round arch.*

*Facies non omnibus una,
No diversa tamen, qualem, etc.
Their faces not all alike, nor yet different, but such as the faces of sisters ought to be.*

*** This portion of the spire, which was of woodwork, is precisely that which was consumed by lightning, in 1823.*

However, all these shades, all these differences, do not affect the surfaces of edifices only. It is art which has changed its skin. The very constitution of the Christian church is not attacked by it. There is always the same internal woodwork, the same logical arrangement of parts. Whatever may be the carved and embroidered envelope of a cathedral, one always finds beneath it—in the state of a germ, and of a rudiment at the least—the Roman basilica. It is eternally developed upon the soil according to the same law. There are, invariably, two naves, which intersect in a cross, and whose upper portion, rounded into an apse, forms the choir; there are always the side aisles, for interior processions, for chapels,—a sort of lateral walks or promenades where the principal nave discharges itself through the spaces between the pillars. That settled, the number of chapels, doors, bell towers, and pinnacles are modified to infinity, according to the fancy of the century, the people, and art. The service of religion once assured and provided for, architecture does what she pleases. Statues, stained glass, rose windows, arabesques, denticulations, capitals, bas-reliefs,—she combines all these imaginings according to the arrangement which best suits her. Hence, the prodigious exterior variety of these edifices, at whose foundation dwells so much order and unity. The trunk of a tree is immovable; the foliage is capricious.

RETRIEVED FROM: <https://www.gutenberg.org/files/2610/2610-h/2610-h.htm#link2HCH0014>

How to Write Vivid *Descriptions*

Remember: Avoid simply telling us what something looks like--tell us how it tastes, smells, sounds, or feels!

Consider this...

- Virginia rain smells different from a California drizzle.
- A mountain breeze feels different from a sea breeze.
- We hear different things in one spot, depending on the time of day.
- You can "taste" things you've never eaten: how would sunscreen taste?

Using Concrete Details for *Narratives*

Effective narrative essays allow readers to visualize everything that's happening, in their minds. One way to make sure that this occurs is to use concrete, rather than abstract, details.

Concrete Language...	Abstract Language...
...makes the story or image seem clearer and more real to us.	...makes the story or image difficult to visualize.
...gives us information that we can easily grasp and perhaps empathize with.	...leaves your reader feeling empty, disconnected, and possibly confused.

The word "abstract" might remind you of modern art. An abstract painting, for example, does not normally contain recognizable objects. In other words, we can't look at the painting and immediately say "that's a house" or "that's a bowl of fruit." To the untrained eye, abstract art looks a bit like a child's finger-painting--just brightly colored splotches on a canvas.

Avoid abstract language—it won't help the reader understand what you're trying to say!

Examples:

Abstract: It was a nice day.

Concrete: The sun was shining and a slight breeze blew across my face.

Abstract: I liked writing poems, not essays.

Concrete: I liked writing short, rhythmic poems and hated rambling on about my thoughts in those four-page essays.

Abstract: Mr. Smith was a great teacher.

Concrete: Mr. Smith really knew how to help us turn our thoughts into good stories and essays.

RETRIEVED FROM: <http://www.roanestate.edu/owl/describe.html>



<p>What do you see in your favorite place?</p>	<p>What do you hear in your favorite place?</p>	<p>What do you touch in your favorite place ?</p>



Describe your Favorite Place Essay Organizer 2

NAME _____

Paragraph 1: Where is your favorite place? Who do you go there with?

- 1.
- 2.
- 3.

Paragraph 2: What do you see in your favorite place?

- 1.
- 2.
- 3.

Paragraph 3: What do you hear in your favorite place?

- 1.
- 2.
- 3.

Paragraph 4: What kinds of things can you touch in your favorite place?

- 1.
- 2.
- 3.

Paragraph 5 CONCLUSION: How do you feel over all about your favorite place?
What makes it special?

- 1.
- 2.
- 3.

K-12 Student Standards for English Language Arts » Grade 1

Reading Standards for Informational Text

Key Ideas and Details

1. Ask and answer questions about key details in a text.
2. Identify the main topic and retell key details of a text.
3. Describe the connection between two individuals, events, ideas, or pieces of information in a text.

Craft and Structure

4. Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.

Integration of Knowledge and Ideas

7. Use the **illustrations** and **details** in a text to describe its key ideas.
8. Identify the reasons an author gives to support points in a text.
9. Identify basic similarities in and differences between two texts on the same topic (e.g., in **illustrations**, **descriptions**, or procedures).

Range of Reading and Level of Text Complexity

10. With prompting and support read informational texts appropriately complex for grade 1.

Writing Standards

Research to Build and Present Knowledge

8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

K-12 Student Standards for English Language Arts » Grade 4

Reading Standards for Informational Text

Key Ideas and Details

1. Refer to **details and examples in a text** when explaining what the text says explicitly and when drawing inferences from the text.
2. Determine the main idea of a text and explain how it is supported by key details; summarize the text.

Craft and Structure

5. **Describe** the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, **concepts, or information** in a text or part of a text.

Writing Standards

- d. Use precise language and domain-specific vocabulary to inform about or explain the topic.

K-12 Student Standards for English Language Arts » Grade 7

Reading Standards for Informational Text

Key Ideas and Details

1. Cite several pieces of relevant textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
3. Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or **how individuals influence ideas or events**).

Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.

Writing Standards

3. Write narratives to develop real or imagined experiences or events using effective technique, relevant **descriptive details**, and well-structured event sequences.

d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.



Additional Resources

<https://www.gutenberg.org/files/2610/2610-h/2610-h.htm>

<http://etc.usf.edu/lit2go/107/the-hunchback-of-notre-dame/>

<http://www.notredamecathedralparis.com/>

<http://www.thehunchblog.com/2016/06/07/hunchback-of-notre-dame-primary-set/>

<http://www.tours-notre-dame-de-paris.fr/en/>

<https://frenchmoments.eu/the-towers-of-notre-dame-cathedral-paris/>

<https://www.shmoop.com/hunchback-of-notre-dame/fate-free-will-theme.html>

<https://www.shmoop.com/hunchback-of-notre-dame/themes.html>

<https://www.coursehero.com/file/p345ksc/Compare-St-Sernin-Toulouse-Cathedral-of-Notre-Dame-Chartres-Cathedral-Chartres/>

<https://lordaroundtheworld.com/2016/paris-day-2-climbing-towers-notre-dame/>

http://www.philobermarck.com/blog/?attachment_id=826

<http://www.hgtv.com/design/make-and-celebrate/handmade/how-to-make-mosaic-stained-glass-art>

<https://study.com/academy/lesson/rose-windows-definition-design-symbolism.html>

http://dragon_azure.tripod.com/UoA/Med-Arch-Rose-Window.html

<https://repository.library.georgetown.edu/handle/10822/554233>

<https://www.pinterest.com/pin/95068242113993354>

<http://www.stlouiscathedral.org/our-history>

<http://www.neworleansonline.com/directory/location.php?locationID=1965>

<http://www.neworleansonline.com/directory/location.php?locationID=1967>

<https://jesuitchurch.net/learn/the-parish>

<http://www.neworleanschurches.com/jesuits/organ/index.htm>