

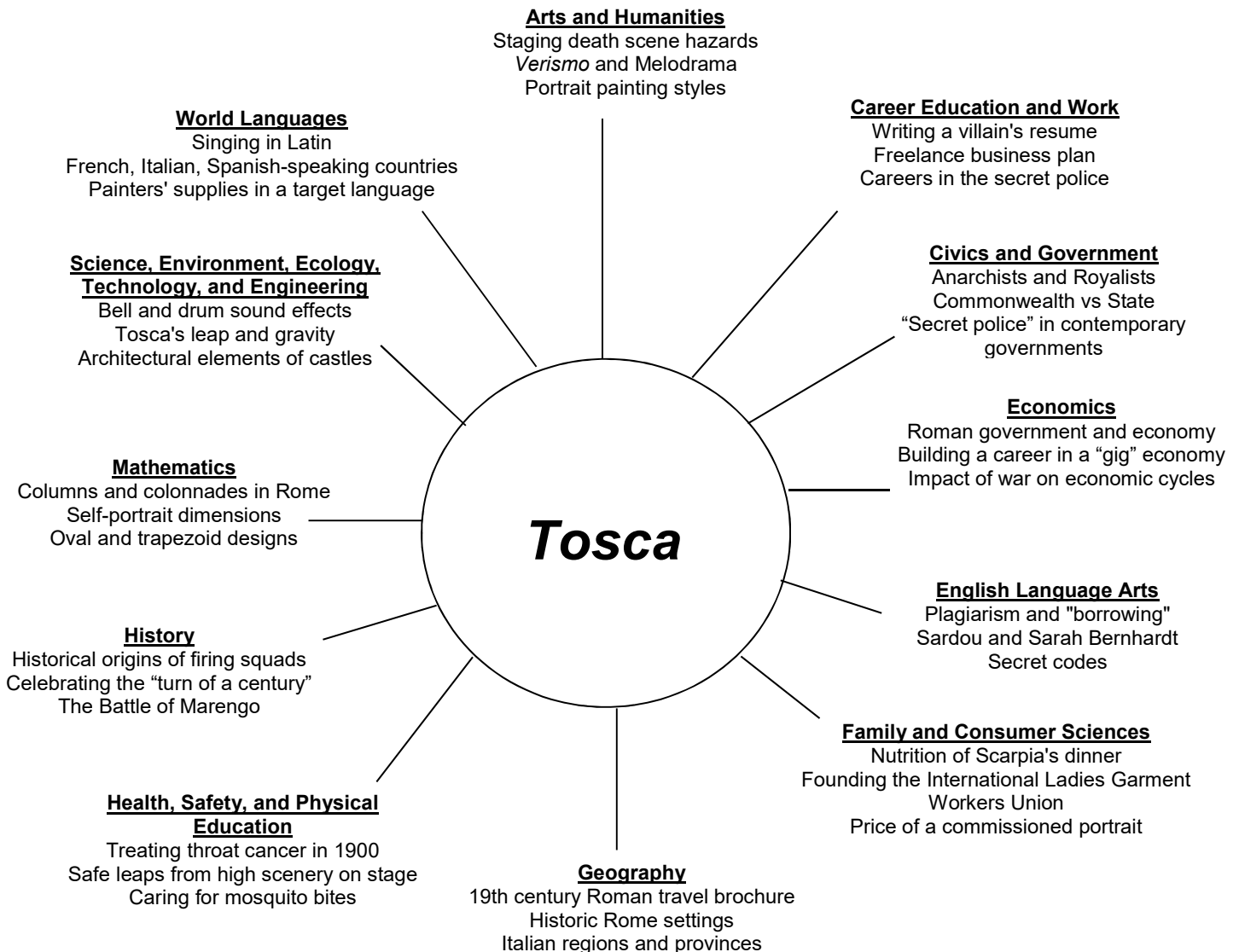
Lesson Plan Stems for 2024–2025

Developed by Opera on TAP, past and present:

Ray Beard	Deb Frauenholz	Robert Lee
Cheryl Begandy	Ann Giorgi	Alyssa Herzog Melby
Athena Bober	Christy Hinkelman	Donna Priore
Carol Brinjak	Cynthia Jankowski	Krista Reitz
Lia Christulides	Ida Joiner	Marie Romanelli, Editor
Lee Ann Conover	Areta Kalogeras	Shirley Tucker
Marilyn Egan		

Curriculum Circle for *Tosca*

How does the opera *Tosca* by Giacomo Puccini intersect with all academic content areas? Begin with the opera and brainstorm connections to all curricula.





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Lesson Plan Stems for *Tosca*

How does the opera *Tosca* by Giacomo Puccini intersect with all academic content areas? Begin with a lesson plan stem and connect the opera to classroom curricula.

NOTES: Suggested grade levels are listed to the right of each lesson plan stem.
PreK =Pre-Kindergarten, ES=elementary school, MS=middle school, HS=high school

Lesson Plan Stems in the English Language Arts and Mathematics sections are *Common Core Friendly*, and are marked:



Arts and Humanities

State Standards: 9.1, 9.2, 9.3, 9.4

Puccini wanted his opera to sound as much like the real Rome as possible, so he included bells in his music. What's a bell? Where have you heard or seen them? How are bells played? Do all bells sound the same? Can songs be played on bells? Explore playing a tune on color-coded bells with your classmates. PreK

Tosca's orchestration calls for one harp. What's a harp? How are harps played? What do you think of when you hear harp music? Make your own harp from a box and elastic bands or strings. How does your homemade harp sound? What does it call to mind when you play on it? PreK

In one scene from the opera, *Tosca* sings at a ball (a formal dance party) given for Queen Caroline. What do you imagine dancing at a queen's ball looks like? Would it be the same or different as dancing you might do at your birthday party? What kinds of songs do you enjoy dancing to? PreK

Composers often use musical sounds or a few notes (called a motif) to help their audience identify different characters; these sounds always accompany these characters. What sounds would you want to represent you? Why did you choose these sounds for your motif? PreK/ES

At the time of *Tosca's* premiere, the cakewalk was one of the most popular dances in American ballrooms. What is the "cakewalk"? How did the dance get started? Would this kind of dance have been used in the gala scene in *Tosca*? Why or why not? ES/MS

Who were "choir boys" in 1800, and what type of music did they sing? How old were they? Were girls permitted to be part of the choir? Do modern choirs sing the same songs as they did in 1800?	ES/MS
Why is the character of Tosca a diva? What is a diva? Who are some modern-day divas? What is the male form of the word?	ES/MS
<i>Tosca</i> is one the most recorded of Puccini's operas. Listen to several different recordings of the same aria. Compare the interpretations of different sopranos.	ES/MS
There is a harp used in the orchestra of <i>Tosca</i> . Discuss the orchestration. Why did Puccini use a harp in this piece? Do some instruments represent emotions or characters better than others?	ES/MS
Study the architecture of great cathedrals. Using pencil or charcoal, draw some of the more prominent features.	ES/MS
Find out about family crests—history and meaning—then design your own family crest to depict your family.	ES/MS
Act III of <i>Tosca</i> is set at the Castel Sant'Angelo, where Tosca leaps to her death. The main bridge is lined with angels. Through art or movement, depict angels falling.	ES/MS
The singer who performs Floria Tosca's role must be able to convey her emotions visually, as well as verbally. How can you show a range of emotions non-verbally? Why is non-verbal communication important? Practice facial and body expressions for a range of emotions, as in a game of charades. Can your classmates identify your expressions of emotions?	ES/MS
In the opera, Tosca places lit candles around Scarpia's body. Are lit candles still allowed on stage in current performances? How would a props manager replace lit candles with something less hazardous, but still retain the effect of a lit candle?	ES/MS
How do you leap to your death in an opera and not really die? Research some stage hazard techniques. How are special effects created for a live audience?	MS/HS
In the Act II of <i>Tosca</i> , Floria sings at a royal gala. What dances would have been performed at the Italian royal court in 1800, the year in which the opera is set? Learn the steps and hold your own gala.	MS/HS
Compare Puccini's use of motifs with Wagner's use of motifs. Who is better known for this technique?	MS/HS
Is <i>Tosca</i> a <i>melodramma</i> or is it more <i>verismo</i> ? Explain what each term means and create a graphic organizer to help decide which category better suits this opera. Brainstorm other works that are melodramatic yet may also be called <i>verismo</i> .	MS/HS

What connections might <i>verismo</i> opera have with other styles of art popular around the turn of the 20 th century? Compare the style of <i>verismo</i> to impressionism in painting.	MS/HS
Research the history of portrait painting, including religious and contemporary themed art. Create portraits of the characters in <i>Tosca</i> in the style of Leonardo da Vinci, Botticelli, and Andy Warhol.	MS/HS
Considering the idea of “silent arrogance,” display emotions through movement (nonverbal communication). How do we show the range of feelings? Why is nonverbal communication so important?	MS/HS
What is the significance of icons, stained glass windows, and statues in Christian church structures? Considering this significance, what icons, images, or sculptures would you include in the set for Sant’Andrea della Valle?	MS/HS
Explore the impressionists’ art form around 1800. How would you incorporate this style of painting into the <i>Tosca</i> scenery? Design a set and/or costumes for <i>Tosca</i> .	MS/HS

Career Education and Work

State Standards: 13.1, 13.2, 13.3, 13.4

What kind of music do you like? If you could be a professional musician, what instrument would you play, or would you want to sing? Can you name some famous musicians or singers?	PreK
Italy is famous for its ancient, beautiful buildings. If you were an architect—a person who designs buildings—what would your building look like? Pick a character from <i>Tosca</i> and draw a building just for that character. What will make your building unique?	PreK
At the end of <i>Tosca</i> , the lead character performs a stunt where she jumps off a building, so often a trampoline is placed below the stage set to safely catch the singer. What is a trampoline? What sports are like performing on a trampoline? In what other types of performances would a stunt person be needed? How does someone learn to perform stunts safely?	PreK/ES
For the characters in <i>Tosca</i> , search an occupational dictionary or the Internet to find modern equivalent positions for the jobs held by each character. Which character's career would you most like to have and why?	ES/MS
In 1900, the year <i>Tosca</i> premiered, the World Exhibition was held in Paris. Students today are also presented with a global job market. What jobs are most prevalent in different parts of the world? In what jobs are you interested? Where are these jobs most likely to be found? Do you need to learn other languages for your dream job?	ES/MS

Create a resume for getting a job as a villain. What qualifications or skills would be needed to be a "bad guy"? How did you earn those qualifications? What would you wear to your interview? ES/MS

For its settings, *Tosca* uses some actual places famous for their architecture. How does someone become an architect? What subjects do architects study? What professional training do they need? What is an average salary for an architect? MS/HS

The playwright Victorien Sardou's best-known work is *La Tosca*, which he wrote as a vehicle for actress Sarah Bernhardt. Do playwrights and screen writers still write works for specific actors? How are actors chosen for roles? What position/person is responsible for selecting actors for different plays or movies called? What are the qualifications needed to have that career? MS/HS

In 1900, the year *Tosca* premiered, the International Ladies' Garment Workers Union was founded in New York City. What were the goals of this union? Did the union reach those goals? What is a union and how does it benefit its members, employers, and industry? Does the ILGWU still exist today? MS/HS

In *Tosca* there are secret police. What modern government and private agencies around the world employ "secret police"? How does a person become employed by these agencies? What skills and education are needed for consideration of employment? MS/HS

Both Mario and Tosca are what modern society calls freelance artists. Develop a business plan for a freelance artist and setting up your studio. How do you price your services? Is your market competitive? What support personnel or services will you need, and how does technology help you in your business? How are you taxed? What insurance must you buy? MS/HS

In many museums, when a painting from a permanent collection is on loan or being repaired, a digitized copy of the original is put on display instead. How would digitization have impacted Tosca's lover's position and income as a church painter? How has digitization and the onset of 3-D printing impacted artists and the art world? MS/HS

Civics and Government

State Standards: 5.1, 5.2, 5.3, 5.4

The story of *Tosca* takes place during an actual war over who would control Italy. Do you know who is currently the lead official of the United States government? What is that person's title? PreK

In 1860, all the Italian city-states' governments became united under one king, Vittorio Emmanuel II. What is a king? What do kings do? What do you think is the difference between having a king or having a president? PreK

Tosca's boyfriend winds up in prison after helping his friend escape. What is prison? What makes a prison different from other places where people might live? Why are people sometimes sent to prison? What do you imagine a prison looks like?	PreK/ES
Not all the states in the United States are called states; some are officially known as "commonwealths." How many commonwealths are members of the United States? What's the difference between a state and a commonwealth? What is Pennsylvania, a state or a commonwealth?	ES/MS
In the opera, the characters of Spoletta (a spy) and Sciarrone (secret police) represent Baron Scarpia's two different types of 19 th -century Italian law enforcement. Research the different branches of contemporary Italian law enforcement—what are they called today? For which branches would Spoletta and Sciarrone most likely work?	ES/MS
In this opera, both Cesare and Mario are sent to prison without a trial. What rights does an accused person have in the United States court system? How have those rights changed from the year 1900, when <i>Tosca</i> premiered, to nowadays? Both Mario and Cesare are actually political prisoners. Do political prisoners have the same set of rights as those accused under criminal and civil proceedings, or are they subject to different rules and procedures in the US court system?	ES/MS
The escaped political prisoner, Cesare Angelotti, was a former consul. In 1800s Rome, what type of government existed? What were the official positions in the government? What was the role of a consul in 1800? Has that role changed? Do consuls still exist in the Italian government?	ES/MS
In 1900, the year <i>Tosca</i> premiered, Hawaii was made a territory of the United States. What rights does a US territory have? How are these rights different from states' rights? How do territories become states? When did Hawaii become a state? What other territories does the US still have? Should these also become states?	MS/HS
In 1900, the year <i>Tosca</i> premiered, the Commonwealth of Australia was created. What is a commonwealth? How does it differ from a state or a country? What other commonwealths exist today?	MS/HS
In 1900, the year <i>Tosca</i> premiered, Italy was ruled by King Umberto I. What type of government does Italy have now? Is there still an Italian royal family? What other countries still have royal families? To what extent are royal families involved in their countries' governments?	MS/HS
In 1900, the year <i>Tosca</i> premiered, King Umberto I of Italy was murdered by an anarchist. What is an anarchist? Make a list of famous or important people who have been assaulted or killed by anarchists. What modern heads-of-state have been killed by revolutionaries? Compare the motives of modern revolutionary assassins to those of the anarchists.	MS/HS

In 1900, the year *Tosca* premiered, Macedonian revolutionaries murdered seven Romanians. There are secret revolutionaries committing murders today. Name a few examples. What explanations did they give for their actions? Were they justified in these actions? Were they brought to justice? If so, did their sentence fit the crime?

MS/HS

In 1900, the year *Tosca* premiered, Republicans retained control of both the US House of Representatives and the Senate. How many other times has a single party controlled both houses of Congress? What are the advantages and disadvantages of single party control? How does this work within the system of checks and balances? Which situation do you prefer?

MS/HS

In 1900, the year *Tosca* premiered, the first direct primary election was held in Minneapolis, Minnesota. What is a primary election? Who can vote in a primary election? How have these elections changed since 1900? What are the advantages and disadvantages of primary elections?

MS/HS

In the opera, Sciarrone rushes in to announce that Napoleon has won the Battle of Marengo. Today, we receive much of our late-breaking news through social media platforms such as Facebook and Twitter. How has social media influenced important political events and how they are reported? Who is most likely to use social media platforms for information, and why? What are some of the challenges with social media and journalism? Brainstorm the pros and cons, supporting each idea with a real-world example.

MS/HS

Economics

State Standards: 6.1, 6.2, 6.3, 6.4, 6.5

If you were to visit Rome, you would have to change your American money for European money. What is the name of the money used in Europe? Find a picture of the European paper money and compare it to an American dollar. What differences do you see? What is similar?

PreK

At the time when *Tosca* was set, Floria Tosca would have traveled by carriage, but nowadays we use a car. What does a car owner have to do to own and maintain a car? Do cars have the same or different needs from carriages? Create a comparison chart that explores owning a carriage to owning a car.

PreK

In 1800s Rome, how would a painter like Cavaradossi make a living? Who would pay him? How would he learn his craft? Does his situation differ from that of a painter today?

ES/MS

In the 1800s, when this opera was set, how did the Italian government finance itself? How did this change—if at all—after the *Risorgimento* (the Italian Reunification of 1860)? How does the United States government finance itself?

MS/HS

As a young composer, Puccini was often broke; he described in letters to his mother how he managed to feed himself when he did not have enough money to afford even a cheap meal at a café. What (if any) private and government programs exist to help young musicians support themselves while they are building a career? How do creative people build careers to earn money—are their incomes steady, or do they work in a “gig” economy? Explore the advantages and disadvantages of “gig” work. MS/HS

Consider the “mute” characters in *Tosca* and then compare how the scarcity of these occupations may affect salaries (earnings). Do these specific occupations exist today in Italy or the US? MS/HS

Compare the economic security of the public sector union police officer with that of an opera singer or artist (painter, sculptor). Examine job statistics in both Italy and the United States. MS/HS

Economists recognize four stages of every economic cycle: expansion, peak, contraction, and trough, and a cycle is roughly defined as 5.5 years. However, *Tosca* takes place during an historical war. What is the effect of war on a country’s economic cycle? Can war ever be considered “good” for a country’s economy? Use information from recent conflict zones to support your ideas. MS/HS

English Language Arts CORE

State Standards: 1.1, 1.2, 1.3, 1.4, 1.5



Lesson Plan Stems in the English Language Arts section are *Common Core Friendly*:

Tosca is an opera that was based on a play. How can you make up a story based on something else? Could you make up a story based on a song, a cartoon, or a picture? What would you use as an inspiration for a story? PreK

The villain, or bad guy, in *Tosca* is Baron Scarpia. What is the opposite of a villain called? Who might be the opposite of Baron Scarpia in this story? Why? PreK

Tosca’s story takes place in the space of just one day. How many hours comprise a single day? What do you imagine could happen in just one day that would make for a good story? PreK/ES

Sometimes composers create operas based on the lives of actual people. Who would you choose to write an opera about? Why do you think this person’s story would make a good opera? PreK/ES

In 1900, the year *Tosca* premiered, two major children’s books were published: *The Tale of Peter Rabbit* and *The Wonderful Wizard of Oz*. Research the children’s literature that was written from 1800 (the year in which *Tosca* is set) to 1900. Create a timeline with your findings. ES/MS

Both the Baron and Mario praise Tosca's beautiful hands, commenting on how she uses them to help the poor. The phrase "lend a helping hand" can be interpreted in two ways: literally and figuratively. What do the terms "literal" and "figurative" mean when applied to language? What is the difference between the two interpretations? This phrase is also called an "idiom". What is an idiom? How are they used? What other idioms do you know?

ES/MS

After listening to the "sinister motif" of Act II, write what sinister music sounds like. Research the etymology of the word sinister.

ES/MS

Learn the definitions of the following words, and describe how they relate to the story of *Tosca*:

ES/MS

Bargain	Betrayal	Brutality	Convey	Execution
Enchanting	Fugitive	Horrific	Interrogate	Intrigue
Mock	Placate	Proposition	Raven (adj.)	Sadistic
Schemer	Transcend	Treachery	Vengeance	

If you were working under Baron Scarpia, chief of the secret police, you would have learned many secret codes and skills. Develop your own secret code. Use your code to communicate an important message to your leader. Use characters from the opera in your message.

ES/MS

Did the librettists who wrote *Tosca* work collaboratively or separately? Why did two people work on the libretto? What other literary works are the result of collaborations? How do writers for plays, movies, and television work? Investigate some famous literary collaborations.

MS/HS

Mario's painting of Mary Magdalene for the church resembles the face of his girlfriend, Floria Tosca. What is the role of Mary Magdalene in the Catholic Church? Compare the role of Mary Magdalene in *The da Vinci Code* and other cultural works with the beliefs and teachings of the Church. How does Mario's sly choice of Floria as inspiration for his painting help characterize her for the audience?

MS/HS

In 1900, the year in which *Tosca* premiered, L. Frank Baum published *The Wonderful Wizard of Oz*. If the characters of *Tosca* performed the story of *The Wizard of Oz*, who would play each role? Explain your casting choices.

MS/HS

In literature, a character that is used to highlight the traits of a different character is called a foil. How does Mario's painting of Mary Magdalene become a foil for Floria Tosca? Trace how the arguments in the history book *Holy Blood, Holy Grail* were used to create the fictional storylines in Dan Brown's *The Da Vinci Code*, then evaluate: Is the Magdalene an appropriate foil for Floria? What message might this comparison really be sending about the role of women in *Tosca*'s society?

HS

Family and Consumer Sciences

State Standards: 11.1, 11.2, 11.3, 11.4

Italy, where *Tosca* is set, is famous for its delicious food. What is your favorite food? What Italian foods have you eaten? Puccini loved food and liked to cook unusual things, such as eels, pheasants, and partridges. What's the most unusual food you've ever tried?

PreK

In the opening scene of this opera, Mario is using oil paints to paint a picture for the church. How is paint different from other kinds of art media you could use to create a picture? What kinds of paint have you used? How is painting a picture different from taking a picture with a camera? Paint a picture of something you love.

PreK

Puccini, the composer of this opera, was a fifth-generation musician, which means his parents, grandparents, great-grandparents, and so forth were also musicians. Do you know anyone who does the same job as their parents or grandparents?

PreK/ES

The men who admire *Tosca* often praise her beautiful hands, noting that she secretly lends a "helping hand" to the poor. What does it mean to be called a "helping hand"? What might *Tosca* be doing with her hands that help the poor? What do these common phrases such as "lend a helping hand" really mean?

PreK/ES

Tosca was set in Rome in the 1800s. Research common foods eaten in Rome at that time. Are any of these dishes popular in today's Italian restaurants? Prepare and eat an authentic Roman dinner from the 1800s.

ES/MS

What was Scarpia eating when *Tosca* stabbed him? Was the food specified in the script or chosen by the stage director?

ES/MS

In 1858, the year Puccini was born, the mechanical washing machine was invented. How did that impact the world? What does a modern washing machine cost now? Compare the cost of owning a washing machine to using public facilities, such as a laundromat. What are the benefits and drawbacks of both? Investigate the numbers of people who still do not have in-home washing machines.

ES/MS

Discuss the financial situation of people living in Rome in the 1800s. How much would it cost to have a portrait painting done? Identify the expression "it costs an arm and a leg", knowing that painting limbs was more expensive, only for the wealthier client. Compare this to family photos of modern families. How do we document our families through photos?

MS/HS

How do people indicate their perceived status with their choice of wardrobe? Discuss how you think each character in *Tosca* should be dressed, based on and to reflect their socioeconomic status and careers. If *Tosca* were set in current times, create a modern wardrobe design board for each character that communicates their status to the audience.

MS/HS

In 1800s Rome, how were clothes designed and manufactured? How are clothes designed and manufactured now? Compare fabric options, styles, and processes. MS/HS

Early in his career, Puccini struggled to earn money, describing in his letters how he would exist on a thin broth of minestrone. What is the recommended amount of food a person needs to be healthy? What is considered a starvation diet? What is minestrone soup, and would a daily bowl of it contain enough nutrients to support a working, healthy, adult male? Price the ingredients needed to make enough minestrone for a week's worth of meals, and compare that cost to your current food budget. What weekly income would be needed to make a week's worth of minestrone soup? What weekly income would be needed to maintain your current food plan? MS/HS

When *Tosca* premiered in 1900, the International Ladies' Garment Workers Union was founded in New York. Its goal was to shorten the 70-hour work week and change to a system in which women sewing at home could earn 30 cents a day. What challenges do working women face today? What jobs today can women do at home, while balancing a family as well as obtaining an income? MS/HS

Geography

State Standards: 7.1, 7.2, 7.3, 7.4

Look at a map of Italy. What does its shape look like? What is Italy surrounded by on three sides? Do you see any islands nearby? What does it mean if we call something an island? PreK

If the country of Italy looks like a boot kicking something, what do you think is Italy's most important sport? PreK

Puccini wanted his music to evoke realistic sounds of Rome, so he studied the actual bells that ring in three different locations. Can you hear any bells ringing in your neighborhood? What do bells sound like? What do you imagine when you hear bells ringing? Can you tell from what direction the bell sounds might be coming from, just by listening to them? PreK/ES

Look at a map of Italy. Where are the major cities? What do you already know about each major city that you can identify? Locate the big rivers in Italy. Which rivers are located near the most famous cities? For a challenge, find the two independent "states" in Italy—the Vatican and San Marino—on a map. What do you think it means to be an independent state inside another country? PreK/ES

Map and grid the location of the settings of the opera. Measure the distance between the locations. Do the locations in the settings of the opera still exist today? Based on your findings, when *Tosca* leaps from the wall of the prison, can she land in the Tiber? Why or why not? ES/MS

Explore the topography of the Alps, both in Italy and France. Compare the heights of the mountains to the terrain in Pittsburgh. ES/MS

Research Italian towns, cities, and regions that are mentioned in biographies of famous Italian composers, like Puccini and Verdi. Plot the locations on a map. ES/MS

Tosca takes place three days after the Battle of Marengo. Locate on a map the town of Spinetta Marengo, where this battle took place. How far is it from Rome? How long would it have taken a messenger from the battle to reach Rome on horseback? Describe the terrain this messenger would have to cross to deliver the message. How might geography and distance impact information exchange? How did it influence the outcome of the story of *Tosca*? ES/MS

Was the location of Rome important in the 19th century? Why would Napoleon want to have control of that city? ES/MS

In 1800, Napoleon and his army crossed the Alps to invade Italy. What would have been the important environmental factors they encountered? What are some natural resources in the Alps the army could have used to survive their crossing? What was considered the earliest month of the year for crossing the Alps? Why? Does that understanding still apply today, or have conditions in the Italian Alps changed since 1800? MS/HS

Create a travel brochure for 19th-century Rome. Consider famous places, people, arts history, interesting facts, etc. Include details about things to see, activities to do, and places to stay. Include a map of the city. MS/HS

Health, Safety, and Physical Education

State Standards: 10.1, 10.2, 10.3, 10.4, 10.5

In the opera, *Tosca* leaps off the top of a tall building. What could happen to you if you jumped off a high place, such as the top of the slide or a playhouse, or at the highpoint of a swing? What do playgrounds have that will help if you accidentally fall off the equipment? If you do fall down, how do you make certain you are ok? PreK

In 1900, the year that *Tosca* premiered, the Yellow Fever Commission led by Major Walter Reed confirmed the fever's connection to mosquitos. What's a mosquito? Where do mosquitoes like to live? Why do mosquitos bite people? What happens when a mosquito bites you, how does a mosquito bite make you feel? How do you take care of a mosquito bite? PreK

What games do you like to play with your friends at home or in school? What games do you think children your age might have played more than 100 years ago, when Puccini was writing this opera? PreK

What is a Gavotte? Listen to and learn to dance a Gavotte. Teach others to do the dance. Was the Gavotte a popular dance at the time of *Tosca*? ES/MS

At the conclusion of the opera, Tosca leaps to her death. What is the safest way for the actress to land out of sight of the audience? Explain why this reduces the risk of injury.	ES/MS
When he became a successful composer, Puccini was enamored with good food and organized a supper club for his friends. He also enjoyed a good laugh and would hold farting competitions after these big dinners. What is a fart? What produces a fart? How are farts important to digestion? Do all mammals fart? Why do we find farts so funny?	ES/MS
In 1900, the year <i>Tosca</i> premiered, Jesse Lazear died of yellow fever while studying the causes of the disease. How is yellow fever contracted? Where is yellow fever a problem? How can it be prevented or treated?	ES/MS
Puccini was born in 1858, the same year the National Association of Baseball Players was organized in America. <i>Tosca</i> premiered in 1900, the year a new baseball league, the American League, was organized. Discuss how the sport has changed through the years. Compare and contrast players in 1858, 1900, and players of today (lifestyles, salaries, skills).	ES/MS
What principles of wellness would Tosca need to maintain her career as a singer? Consider stamina, vocal strength, breath control, and appearance.	MS/HS
Puccini died of throat cancer. What treatments were available for this illness in Puccini's lifetime? What are some causes for this disease?	MS/HS
Investigate water and indoor plumbing in Italy in the 1800s. Would the same level of service be available in Roman buildings as in the country villa where Mario and Tosca plan their getaway?	MS/HS
Puccini, <i>Tosca's</i> composer, loved fast cars and almost died in 1903 as the result of a major automobile accident. What safety features (if any) did early automobiles offer? Trace the history of automobile safety regulations in the United States. What are the major improvements made to cars to make them safe? When did each of these improvements come into being, and how did these improvements come to pass?	MS/HS
In one scene, Tosca is singing at a royal gala, where guests are enjoying alcohol and food. How does a person's body process alcohol, both by itself and with food? How does alcohol impact a person's ability to function short-term, and his or her overall health? At what point is a person considered impaired? Puccini died of throat cancer; does alcohol consumption have any correlations with positive or negative health factors?	HS
<i>Tosca</i> takes place in Rome, Italy. Compare Italy's socialized medical care system to our current health care system. What are the advantages of socialized medical care? What are some advantages of having private health care insurance?	HS

History

State Standards: 8.1, 8.2, 8.3, 8.4

In this opera, Baron Scarpia has spies working for him. What's a spy? What do spies do? Why might a powerful person like Baron Scarpia want to have spies working for him?	PreK
<i>Tosca</i> takes place in a church and a palace. What does a church or a palace each look like? What buildings are near you where a big event could take place?	PreK
Puccini's <i>Tosca</i> premiered in 1900, at the turn of the 20 th century. In the year 2000, we celebrated the turn of the 21 st century. What's a century? What famous or important people do you think were born in the last century. In which century were your parents born? Who do you think may have been born in this century?	PreK/ES
How long have there been spies? What type of skills and knowledge do spies need to have to do their jobs?	ES/MS
<i>Tosca</i> was written in 1900. How did people celebrate the turn of the century? What significant historical events were happening that year? How was the turn of the 21 st century celebrated? What historical events were happening then? Interview someone who experienced the turn of the 21 st century. How did they mark the occasion? What stands out for them about that event?	ES/MS
In 1900, the year <i>Tosca</i> premiered, the Philadelphia Orchestra was founded. Research the Philadelphia Orchestra's history. What famous opera singers and conductors have performed with the Philadelphia Orchestra?	ES/MS
When did firing squads originate? Were they only used by the military? (Do you think they were used so no one would personally feel responsible for the death?) Stage a debate about the use of the death penalty in current times.	MS/HS
Did Puccini face hostility in his personal life? Did this affect him when he wrote <i>Tosca</i> ?	MS/HS
Several characters in <i>Tosca</i> were imprisoned unjustly. Who else has been unjustly imprisoned? What about political prisoners today? Stage a debate to discuss.	MS/HS
The Battle of Marengo is mentioned in Act II. Where is Marengo? Which war was this? Why is this important in Italian history? What or who was the battle named for?	MS/HS
Why were the three locations (Church of Sant'Andrea, Palazzo Farnese, and Castel Sant'Angelo) chosen for <i>Tosca</i> ? What significance do they hold? What other settings could have been used in Rome?	MS/HS

Rather than be captured, Tosca leaps to her death. Consider the issue of suicide in the Catholic Church. Has the Church's viewpoint changed from the 19th century to today?

MS/HS

Mathematics CORE

State Standards: 2.1, 2.2, 2.3, 2.4

Lesson Plan Stems in the Mathematics section are *Common Core Friendly*:



Look at pictures of some famous buildings in Rome. What simple shapes can you identify in each building? After looking at several pictures, what shapes seem to be featured the most in Roman architecture?

PreK

Leonardo Da Vinci discovered that our bodies generally follow a set of proportions, that certain body parts will be the same size as other body parts. Using your hands, arms, and legs, discover which parts are similar in size. Start by holding your open hand over your face. What do you notice about the size of your hand and your face? Try measuring your foot or leg with your hand and arm. What did you discover?

PreK

Tosca is an opera that has three acts. What else contains the number three, or comes in, or is grouped in, sets of three?

PreK

In *Tosca*, Cavaradossi working on a portrait of Mary Magdalene based on the face of Angelotti's sister. Draw your self-portrait on 8½ X 11" paper (or graph paper). Mathematically calculate the dimensions of enlarging your portrait to 11 x 17", and also a 5 ½ x 8 ½" version.

ES/MS

Connecting dots plotted on a graph can sometimes reveal hidden pictures. Using a photo of your face, create sets of plot points to be plotted on a graph that when connected, reveals a simple line representation of your photo.

ES/MS

Create a budget for a production of *Tosca*. Consider costs for artists, costumes, orchestra, sets, stage hands, technology, etc. What will you have to charge for tickets in order to make a profit? Are those prices reasonable? What are some ways to save money?

ES/MS

Create scale model columns and use them to design several colonnades. Determine where a person could be positioned so that the columns are aligned, allowing only the closest column to be seen. What are the dimensions of your arc? What are the angles and lengths of the triangle sides formed by the person and a set of columns?

ES/MS

St. Peters' Square in Rome is flanked by two sets of columns. The first colonnade is oval and the second is a trapezoid. Research other buildings with similar designs. Are there any in Pittsburgh?

ES/MS

Given the dimensions of the Benedum Center Stage (Stage size: 75' X 142', Gridiron Height: 81' 11"), how many square yards are available on stage for the storing and use of sets?

MS/HS

At the conclusion of *Tosca*, the main character leaps to her death. MS/HS
Mathematically determine the ratio of the height of the jump to thickness of the mattress she lands on. How would the weight of the singer affect your statistics?

In 1900, the year *Tosca* premiered, Koppen devised a mathematical system MS/HS
of climate classification. Study and evaluate this system.

Research the following statistics: MS/HS

- Population of Italy and the US in 1900
- Land area of Italy and the US in 1900
- Ratio of shooters to prisoners in a firing squad. What are the odds of hitting a prisoner?

Science, Environment, Ecology, Technology, and Engineering

State Standards: 3.1, 3.2, 3.3, 3.4, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9
(SEETE Standards to take effect on July 1, 2025)

When writing an opera score, composers often include sound effects— PreK
sounds we hear in our daily lives—to make an opera sound more like real life. What are some sounds you hear in the morning when you are getting ready for school? If you were composing an opera about your morning routine, what sound effects would you include?

Bugs in houses, businesses, and even castles would have been a normal PreK
part of life in *Tosca*'s time, and bugs are really an important part of our ecosystem. What bugs have you found in your house? What are some bugs that are ok to have in the house? What kind of bugs should only live outside?

Part of the fun of performing in an opera is getting to wear costumes, wigs, PreK/ES
and makeup! What is a costume? How is it different from the clothes you normally wear? How does a costume help you play make-believe? What can a character's costume tell us about that character?

In Act I, a cannon shot is fired as an alert. What types of alerts do we use PreK/ES
today? Examples: weather channel, terror alert, fire drill bell, etc.

In *Tosca*'s time, it was common for bugs and rodents to live in buildings, ES/MS
like homes, businesses, churches, and castles. Do modern buildings still host bugs and rodents? Is this problematic? Explain which types of insects and rodents are concerning, and which are not. What was pest control like in 1800? In 1900? Today?

Using a computer-aided design program, create a stage set for the final ES/MS
scene in *Tosca*. What information do you need to know about your stage space in advance to put into the program to design your set?

Search the opera <i>Tosca</i> for needed sound effects. Create homemade instruments using found material. (Example: Make a horn using a hose and a funnel). Recreate a scene with a variety of sound effects with your homemade instruments.	ES/MS
<i>Tosca</i> is set in 1800 in a castle. What were the water and sanitation systems like? How many people would an average castle need to support? Sketch a castle and show the flow of these systems. How do these compare to modern sanitation systems?	ES/MS
At the end of the opera, the character Tosca leaps to her death. Prepare an egg drop experiment inspired by this jump. What materials work best to prevent an egg from breaking when dropped? Do certain materials work better for different heights?	ES/MS
In the opera, Baron Scarpia has his spies everywhere. If you were to send a secret message, you would need to encrypt it to keep the Baron from reading your message. What is encryption? How does encryption work with computer programming? What types of information need to be encrypted when using online services and electronic devices? What encryption programs are available for businesses as well as individuals?	MS/HS
Compare the architecture of the Church of Sant'Andrea and the Castel Sant'Angelo. What are their similarities and differences? Design a modern castle. What technological features will your castle include? What makes your design "modern" compared to the structures in <i>Tosca</i> ? What was considered "modern" in design and technology in 1800?	MS/HS
In 1921, near the end of Puccini's life, KDKA Pittsburgh launched the first commercial broadcasting radio station. Trace the development of telecommunications from 1921 to now. When was the first live opera broadcast? How did radio change the landscape for information and education technology? Is radio still an important today? If so, why? What government regulations apply to radio?	MS/HS
Puccini was an automobile enthusiast who loved speed, and as such he would have known how to drive using a stick-shift. What is the difference between operating a manual car and the more common automatics that most Americans drive? What skills do you need to have? If you've never driven a stick shift, where can you go to learn how?	MS/HS
In 1900, the year <i>Tosca</i> premiered, <i>The Interpretation of Dreams</i> by Sigmund Freud was published. Freud revolutionized the world of psychology. Research his main theories and ideas, and how they changed the study of psychology. The character Tosca is living in a "nightmare" of a situation. How might Freud have analyzed her?	HS

World Languages

ACTFL Standards: 1 Communication, 2 Cultures, 3 Connections, 4 Comparison, 5 Communities
(National Standards from American Council on the Teaching of Foreign Languages)

In our neighborhoods, it is often common to find friends or neighbors who speak more than one language. Do any of your classmates or teachers speak another language? Does anyone in your family or circle of friends speak another language? How many different languages are spoken in your neighborhood? PreK

Many Italian words have also become part of the English language. What words do you know that are Italian? PreK

Cognates are words in two or more languages that share similar spellings, pronunciations and meanings. For example, “pizza” in English looks, sounds, and means the same as “pizza” in Italian. What are some words you know in another language that have English cognates? PreK/ES

When an opera singer does a terrific job with a song, the audience might shout one of three terms: brava, bravo, or bravi. Each of these terms applies to a different situation. Which term do you think is used for a woman? Which one for a man? Which if more than one person is singing? Which part of the word helped you choose when it should be used? Do you know any other words that follow a similar pattern? PreK/ES

What is the origin of the Italian language? Discuss other languages belonging to the same language tree. ES/MS

Tosca premiered in 1900, the year Spain and France signed a treaty defining the borders of Spanish Guinea (now Equatorial Guinea). Research this lesser-known Spanish speaking country in Africa. ES/MS

In *Tosca*, Mario is a painter. Think of all the supplies that an artist uses; learn these words in your target language while playing a bingo type game acting out each word. ES/MS

The choir boys are to sing a *Te Deum* in Act I of *Tosca*. What is “*Te Deum*” and what is its history? In what language is it usually sung? When and where is it sung? Translate one setting of *Te Deum* into English or the target language. MS/HS

Choose an excerpt from the Italian libretto of *Tosca*. Translate the text literally, and then put the translation into colloquial language. Finally, create supertitles that could be projected above the stage during a performance. MS/HS

Consider the importance of religion in the settings of *Tosca*. Find examples of the interiors of the churches mentioned in the opera (a family chapel, basilica). Compare the decorations with the interior of places of worship typical of your target culture. MS/HS

In Act III of *Tosca*, Mario writes a farewell letter to Tosca, telling his memories of love and words of despair while awaiting his execution. Write Mario's letter in your target language. Exchange letters with a classmate and write Tosca's response in the target language. MS/HS

Italian drivers have notorious reputations for speed and risk. If you were to rent a car for an Italian vacation, do you need to speak and read Italian to be able to drive in Italy? What training or documentation would you need to be able to drive in a foreign country? How will you be able to interpret Italian road rules, regulations, and signage? MS/HS

Character Themes for Tosca

Eleanore N. Childs, a Pittsburgh attorney and child advocate, worked with teachers for more than a decade to research character education and develop the Heartwood Ethics Curriculum for Children. Heartwood's life lessons through literature promote understanding and practice of seven universal character attributes, which constitute the foundation of community among all people.

The Heartwood Institute defined seven universal character attributes:

- **Courage** is not only mastering fear; it is the ability to face difficulty or risk with integrity and honor.
- **Loyalty** is being faithful to a person, group, or ideal based on understanding that we are all part of something greater than ourselves.
- **Justice** is being guided by a balance of truth, reason, and fairness to all.
- **Respect** is regard for all life on earth. It calls us to value all people and their contributions, viewpoints, and differences, such as culture, religion, age, race, and ability.
- **Hope** guides our future through faith and aspiration, helping us to rise above selfishness and despair.
- **Honesty** is being truthful and honorable, the foundation for friendship and community.
- **Love** is deep care and concern for others, encompassing all the attributes. The more love we give, the richer we become.

Discuss three attributes—LOYALTY, JUSTICE, and LOVE—after reading the synopsis of Tosca.

1. Does Floria Tosca really love Mario? How would Tosca define love? How does jealousy figure into her conception of love? Does Mario love Tosca? How would he define love?
2. Tosca tells Scarpia where Mario's friend is hiding in an effort to save him from torture. How does this betrayal reveal Tosca's concept of loyalty? Does Mario agree with her actions? Would Mario have done the same if Tosca were the one being tortured?
3. Does Scarpia get what he deserves? Has justice been served? Should Tosca have been punished for killing Scarpia? Why does she take her own life? Is it through fear, a sense of justice, or a form of loyalty to Mario?
4. Was Scarpia's firing squad loyal to him, even after his death? Are soldiers being loyal when they follow orders, no matter what?
5. Compare Mario's loyalty to Angelotti, the escaped prisoner, and Tosca's revelation of the prisoners' hiding place. Did love overcome loyalty?