**VOCABULARY**

**Alchemy:** a medieval branch of study and speculative philosophy aiming to achieve the transmutation of the base metals into gold, as well as the search for human immortality

**Allusion:** a literary device that refers to a well-known story, event, person, or object in order to make a comparison in the readers’ minds

**Alter Ego:** a second self or different version of oneself: such as A: a trusted friend B: the opposite side of a personality

**Autodidact:** a self-taught person

**Bell Jar:** a bell-shaped glass vessel used for covering delicate objects or used in a laboratory, typically for enclosing samples

**Clone:** the aggregate of genetically identical cells or organisms asexually produced by or from a single progenitor cell or organism

**Copyright:** the exclusive legal right to reproduce, publish, sell, or distribute the matter and form of something (such as a literary, musical, or artistic work)

**Creature:** something created, either animate or inanimate

**Doppelgänger:** a double of a living person, possibly a spirit or ghost. In folklore to see your double is typically a forewarning of bad luck or death.

**Dystopia:** An imaginary place or condition in which everything is as bad as possible

**Electrode:** a conductor by means of which an electric current is made to enter or leave an object, substance, or region

**The Enlightenment:** a philosophical movement of the 18th century marked by a rejection of traditional social, religious, and political ideas and an emphasis on reason and experience, as opposed to emotion and religious belief, as the basis for action

**Feminism:** the theory of the political, economic, and social equality of the sexes

**Frankensteinian:** a monster who is a terror to his originator and ends by destroying him

**Galvanism:** a direct current of electricity especially when produced by chemical action

**Gothic:** of or relating to a style of fiction characterized by the use of desolate or remote settings and macabre, mysterious, or violent incidents

**Homage:** a work of art or entertainment which incorporates elements characteristic of another work or artist, as a means of paying affectionate tribute

**Macabre:** characterized by or suggestive of gruesomeness; grim, horrific, repulsive

**Monster:** A. any imaginary creature that is large, ugly, and frightening B. a malformed animal or plant C. a person of repulsively unnatural character, or exhibiting extreme cruelty or wickedness as to appear inhuman

**Natural philosopher:** term used until the nineteenth century to describe those who study natural bodies and the phenomena connected with them; what would today be known as physical scientists

**Occult:** supernatural beliefs and practices with a secret or mysterious nature

**Parody:** a literary or musical work in which the style of an author or work is closely imitated for comic effect or in ridicule
**Pneumatics:** a branch of physics that deals with the properties of air and other gases

**Presumption:** the taking upon oneself of more than is warranted by one’s ability; an act, instance, or state of arrogance or overconfidence

**Prometheus:** a character from Greek mythology who is eternally punished for stealing fire from the gods and giving it to humanity

**Romanticism:** a literary, artistic, and philosophical movement originating in the 18th century, characterized by an emphasis on the imagination and emotions, and marked especially in English literature by the use of autobiographical material, an appreciation of nature, a predilection for melancholy, and the use in poetry of older verse forms

**Sublime:** A. lofty, grand, or exalted in thought, expression, or manner  
B. of outstanding spiritual, intellectual, or moral worth  
C. tending to inspire awe usually because of elevated quality (as of beauty, nobility, or grandeur) or transcendent excellence

**Sympathy:** the act or capacity of entering into or sharing the feelings or interests of another

**Vacuum:** a space absolutely devoid of matter

**Vacuum pump:** a pump for exhausting gas from an enclosed space

**Vindication:** justification by proof or explanation
SUGGESTED READING

HISTORY AND CRITICISM:

- Denlinger, Elizabeth C. *It’s Alive! A Visual History of Frankenstein*, 2018

WORKS BY MARY SHELLEY AND HER CIRCLE

- Byron, George Gordon, *Childe Harold’s Pilgrimage*, 1812-1818
- Byron, George Gordon, “Darkness,” 1816
- Godwin, William, *An Enquiry Concerning Political Justice*, 1793
- Polidori, John William, “The Vampyre,” 1819
- Shelley, Mary, *The Last Man*, 1826
- Wollstonecraft, Mary, *A Vindication of the Rights of Men*, 1790
- Wollstonecraft, Mary, *A Vindication of the Rights of Woman*, 1792
- Wollstonecraft, Mary, *Letters Written During a Short Residence in Sweden, Norway, and Denmark*, 1796

WORKS THAT APPEAR IN FRANKENSTEIN:

- Goethe, Johann Wolfgang, *The Sorrows of Young Werther*, 1774
- Milton, John, *Paradise Lost*, 1667
- Plutarch, *Parallel Lives*, 1st century AD
- Volney (or, Constantin François Chasseboeuf), *The Ruins, or a Survey of the Revolutions of Empires*, 1792, translated by James Marshall
INFLUENTIAL TO MARY SHELLEY’S PHILOSOPHY:

- Locke, John, *An Essay Concerning Human Understanding*, 1690
- Locke, John, *Some Thoughts Concerning Education*, 1693
- Rousseau, Jean-Jacques, *Discourse on the Origin and Basis of Inequality Among Men*, 1754

GOTHIC NOVELS:

- Austen, Jane, *Northanger Abbey*, 1803
- Maturin, Charles Robert, *Melmoth the Wanderer*, 1820
- Radcliffe, Anne, *The Mysteries of Udolpho*, 1794
- Walpole, Horace, *The Castle of Otranto*, 1764

ALTER EGOS AND MONSTERS:

- Stevenson, Robert Louis, *The Strange Case of Dr. Jekyll and Mr. Hyde*, 1886
- Stoker, Bram, *Dracula*, 1897
- Wilde, Oscar, *The Picture of Dorian Gray*, 1891

CONTEMPORARY ADAPTATIONS AND REIMAGININGS:

- Atwood, Margaret, *Oryx and Crake*, 2003
- Grimly, Gris, *Gris Grimly’s Frankenstein*, 2013
- Kwitney, Alisa, *Cadaver & Queen*, 2018
SUGGESTED FILMS

ADAPTATIONS OF THE NOVEL

- *Frankenstein: The Man Who Made a Monster*, 1931, James Whale, director, NR
- *The Bride of Frankenstein*, 1935, James Whale, director, NR
- *Mary Shelley’s Frankenstein*, 1994, Kenneth Branagh, director, R

FILMED THEATRICAL ADAPTATIONS

- *Frankenstein*, 2011, Danny Boyle, director, NR

CREATIVE REIMAGININGS

- *Blade Runner*, 1982, Ridley Scott, director, R
- *The Terminator*, 1984, James Cameron, director, R
- *The Iron Giant*, 1999, Brad Bird, director, PG

PARODIES AND HOMAGES

- *Frankweenie* (short), 1984, Tim Burton, director, PG
- *Frankweenie* (animated feature), 2012, Tim Burton, director, PG
- *Young Frankenstein*, 1974, Mel Brooks, director, PG
SUGGESTED WEB RESOURCES

DIGITAL REFERENCE AND ESSAYS:

The Carl H. Pforzheimer Collection of Shelley and His Circle
The New York Public Library (Stephen A. Schwarzman Building)
Digital collection of Shelley materials including texts and works of art

The Dinner Party
The Brooklyn Museum
Mary Wollstonecraft has a place setting in the Brooklyn Museum’s permanent installation of Judy Chicago’s The Dinner Party. Her daughter Mary Shelley is also included in the installation. The museum’s website explains the artist’s choice of Wollstonecraft for her feminist work, including articles and images

‘Romantic Circles’ guide for Frankenstein; related resources for Romantic literature

The Shelley-Godwin Archive, manuscript pages digitized and with transcripts

The sublime in art: The Tate

FRANKENSTEIN 200TH BIRTHDAY CELEBRATIONS:

Frankenreads, a National Endowment for the Humanities funded initiative of the Keats-Shelley Association of America for a series of events, initiatives and resources: frankenreads.org

Frankenstein200, a project using themes from Frankenstein to examine emerging technologies while promoting skills related to creative collaboration and critical thinking: nisenet.org/frankenstein

Frankenstein200 online game: frankenstein200.org

Romantic Bicentennials, a list of anniversary events sponsored by the Keats-Shelley Association of America (K-SAA) and the Byron Society of America (BSA): romantics200.org

SCIENTIFIC ETHICS AND VACUUM PUMP DEMONSTRATIONS:

Ethical dilemmas examples in New Scientist Magazine

Vacuum pump activities

Vacuum pump DIY

Vacuum pump video demonstration
SHELLEY-GODWIN FAMILY TREE

Gilbert Imlay (1754-1828) —— Mary Wollstonecraft (1759-1797) —— William Godwin (1756-1836) —— Mary Jane Clairmont (1768-1841)

Fanny Imlay (1794-1816) —— Harriet Westbrook (1795-1816) —— Percy Bysshe Shelley (1792-1822) —— Mary Shelley (1797-1851) —— William Godwin, Jr. (1803-1832) —— Anne Isabella (Annabella) Milbanke (1792-1860) —— Lord Byron (1788-1824) —— Clara Mary Jane Clairmont (1798-1879) —— Charles Clairmont (1795-1850)

Eliza Ianthe (later Esdaile) (1813-1876) —— Charles (1814-1826) —— Unnamed girl (1815-1815) —— William (1816-1819) —— Clara Everina (1817-1818) —— Sir Percy Florence (1819-1889) —— Ada (later Countess of Lovelace) (1815-1852) —— Allegra Biron (1817-1822)
Mary Wollstonecraft (1759–1797)
Mary Wollstonecraft (1759–1797), raised by an abusive father and largely responsible for her siblings’ upbringing, was an author and feminist whose arguments frequently reflect her concern for reforming education and domestic relations. She is best known for *A Vindication of the Rights of Men* (1790), and *A Vindication of the Rights of Woman* (1792). During the collapse of her relationship with Gilbert Imlay (father of her first daughter, Fanny), she wrote *Letters Written During a Brief Residence in Sweden, Norway, and Denmark* (1796)—a text William Godwin described as “calculated to make a man in love with its author.” Wollstonecraft and Godwin married shortly before the birth of their daughter Mary, who would later be known as Mary Shelley. Wollstonecraft died of puerperal fever ten days after Mary Godwin (later Shelley) was born.

Gilbert Imlay (1754–1828)
Gilbert Imlay (1754–1828), described by Wil Verhoeven as “perhaps best regarded as an early example of the American con man,” was Mary Wollstonecraft’s romantic partner during the French Revolution. Although the couple did not marry, Imlay declared Wollstonecraft his spouse to offer her the protection afforded Americans during the Terror. The couple had a daughter, Fanny, in 1794, but Imlay proved unfaithful, and a despairing Wollstonecraft attempted suicide. While she recovered, Imlay sent her to Scandinavia to inquire about his business interests; she published the letters she wrote during the trip as *Letters Written During a Short Residence in Sweden, Norway, and Denmark* (1796). When she returned from the trip, she found Imlay had taken up with another woman. Wollstonecraft attempted suicide once again, and once again survived.

William Godwin (1756–1836)
William Godwin (1756–1836) was a political philosopher, novelist, and a founder of the genre that became the detective thriller. His best-known works include *An Enquiry Concerning Political Justice* (1793) and *Caleb Williams* (1794). Chronically debt-ridden and frequently threatened with repercussions of his politically radical writing, Godwin raised his large, blended family under extreme stress. When the young Percy Bysshe Shelley sought out his political role model, he met Godwin’s 16-year-old daughter Mary, and they quickly began a romantic relationship.

Mary Jane Clairmont (1768–1841)
Mary Jane Clairmont (1768–1841) was William Godwin’s neighbor when they met and quickly married. She brought two children of her own, Jane (who later went by the name Claire Clairmont) and Charles, into the family. In 1803, Mary Jane gave birth to a son, William Godwin, named after his father. By this point, five children lived in the house—and none shared the same two parents. Mary Jane was known for her strong personality, but by all accounts the marriage was a success. The Godwins were often financially strapped, despite running a successful children’s bookshop and publishing company. As Mary Godwin (later Shelley) grew up, she and Mary Jane suffered an increasingly tense relationship—especially after Mary and Jane (Claire) eloped to the Continent with Percy Bysshe Shelley.
FRANCES “FANNY” IMLAY (1794–1816)
Frances Imlay (1794–1816), named for her mother’s friend Frances Blood and called Fanny throughout her life, was adopted by William Godwin after Mary Wollstonecraft’s death. Like her half-sister Mary, she was raised in a lively, intellectual household that set high expectations: her stepsister, Claire Clairmont, later commented that “in our family if you cannot write an epic poem or a novel that by its originality knocks all other novels on the head, you are a despicable creature not worth acknowledging.” Left behind when Claire and Mary ran off to the Continent with Percy Bysshe Shelley, Fanny committed suicide in 1816.

CHARLES CLAIRMONT (1795–1850)
Charles Clairmont (1795–1850) joined the Godwin household when his mother, Mary Jane, married their neighbor, William Godwin.

HARRIET WESTBROOK (1795–1816)
Harriet Westbrook (1795–1816) married Percy Bysshe Shelley in 1811, when she was just 16 years old. By the time P. B. Shelley met Mary Godwin in 1814, Harriet was pregnant with their second child, but for him the marriage was already mostly over. When Harriet committed suicide in 1816, Mary Godwin and P. B. Shelley had already had two children of their own.

PERCY BYSSHE SHELLEY (1792–1822)
Percy Bysshe Shelley (1792–1822), a poet, defied his father’s expectations when he was expelled from Oxford for refusing to deny authorship of “The Necessity of Atheism.” He married Harriet Westbrook in 1811, but the marriage quickly fell apart, and he took up with Mary Godwin (later Mary Shelley) in 1814, abandoning his pregnant wife and young child. After Harriet’s suicide, he unsuccessfully sought custody of their two children. In the last seven years of his life, before he drowned just shy of his 30th birthday, he lost three of his four children by Mary Shelley. Percy Bysshe Shelley was Mary Shelley’s frequent editor, and made suggestions to the text of Frankenstein as we know it. Although he was not as popular a poet as his friend Byron in their lifetimes, his poetic legacy was secured in large part through the efforts of his widow. He is now best known for poems such as “Ozymandias,” “Queen Mab,” and “Adonais,” an elegy for John Keats.

MARY SHELLEY (1797–1851)
Mary Shelley (1797–1851) is best known as the author of Frankenstein (1818), but she wrote novels, essays, and short fiction throughout her life. Raised in an intellectual household under the shadow of her mother’s death just ten days after her own birth, Mary must have been, as she later wrote of Percy Bysshe Shelley, “very anxious that I should prove myself worthy of my parentage, and enrol myself on the page of fame.” She ran off with Shelley at 16 and began writing the novel that would secure her fame at just 18 years old. Her life began with the tragedy of her mother’s death, and tragedy would continue to follow her, as she lost three of four children and her husband before her 25th birthday. She raised her remaining child, Percy Florence Shelley, on a
meager allowance from her father-in-law, supplemented by her earnings as a writer. When she died of a brain tumor in 1851, she had already secured her legacy as author of one of the greatest works of English literature.

WILLIAM GODWIN, JR. (1803–1832)
William Godwin, Jr. (1803–1832), spent a wayward youth before settling into a career as a journalist for *The Morning Chronicle*. Like others in his famous family, he tried his hand at a variety of literary genres, but with little success. After he died of cholera at 29, his father arranged for the posthumous publication of his novel *Transfusion* (1835).

CLAIRE CLAIRMONT (1798–1879)
Clara Mary Jane Clairmont (1798–1879) was known as Jane in childhood, but later chose to go by the name Claire. Like her half-brother Charles, she joined the Godwin household when her mother married William Godwin. She joined her stepsister Mary and Percy Bysshe Shelley when they eloped to the Continent in 1814. In 1815, she initiated a relationship with the famous poet Lord Byron, who was unhappily married to Annabella Milbanke. It was at her request that Mary and Percy Bysshe Shelley agreed to travel to Switzerland to meet up with Byron and his doctor, John Polidori. During the fateful summer of 1816, Byron challenged the group to write ghost stories, which led to two of the most iconic monsters in British literature, in Mary Shelley’s *Frankenstein* (1818) and Polidori’s “The Vampyre” (1819). Claire returned from the trip pregnant with the child who would eventually be known as Allegra Biron.

LORD BYRON (1788–1824)
George Gordon, Lord Byron (1788–1824), wrote that after the publication of the first two cantos of *Childe Harold’s Pilgrimage* in 1812, “I awoke one morning and found myself famous.” It was probably his celebrity as a poet that compelled Claire Clairmont to proposition him in 1815, even though he was unhappily married at the time. Although his relationship with Claire was brief, it forever entangled Byron with the Shelley-Godwin family: in addition to fathering a child by Claire, Byron formed a literary friendship with the Shelleys that began that fateful summer of 1816, when they stayed at the Villa Diodati. Long interested in global struggles for liberty, Byron died of a fever in 1824 while he was on his way to join the Greek independence movement.

ANNABELLA MILBANKE (1792–1860)
Byron proposed to Annabella Milbanke twice before she accepted and they married in 1815. The marriage quickly turned sour as Byron’s behavior scandalized the morally upright Annabella. By the time the couple separated in 1816, shortly after the birth of their daughter, Annabella believed her husband was certifiably mad.

IANTHE AND CHARLES SHELLEY
After Harriett Westbrook’s suicide in 1816, a custody battle ensued, and Percy Bysshe Shelley lost custody of Ianthe and Charles, the children of his first marriage. The court used P. B. Shelley’s radical politics and professed atheism, as expressed in his poem “Queen Mab” (1813), as grounds for denying custody. When Charles died at eleven, Percy Florence became heir to the Shelley estates, and P. B. Shelley’s father became slightly more generous in the allowance he paid to Mary Shelley for his upkeep.

THE SHELLEY CHILDREN
Only one of the Shellesys’ four children survived. The first, a girl whose name, if she had one, has been lost to the ages, lived only a few weeks. William and Clara died as toddlers, and the Shellesys were childless before the birth of their fourth and last child, Percy Florence. Percy Florence—known as Sir Percy Florence after he inherited the baronetcy upon the death of his grandfather—lived a long and seemingly happy life. He and his wife Jane preserved the legacy of his famous parents, building a shrine to them in their home and relocating the graves of Mary Wollstonecraft and William Godwin to Dorset, where they were laid to rest together.

**ALLEGRA BIRON (1817–1822)**

Allegra Biron (1817–1822) was first named Alba after the nickname Claire Clairmont and the Shellesys used to refer to Lord Byron, Albè, for its aural similarity to his initials, L. B. Byron renamed the child Allegra and gave her an altered version of his surname to distinguish her from her legitimate half-sister, Ada. Allegra died of typhus fever in an Italian convent when she was five years old; she was buried at Harrow, her father’s school. Her mother Claire vocally mourned the child’s death until the end of her own life more than fifty years later.

**ADA LOVELACE (1815–1852)**

Raised under her mother’s strict supervision, Ada Byron (1815–1852), better known as Ada Lovelace, never knew her father—and was kept as far removed from his poetic and personal reputation as possible. She was a brilliant mathematician who wrote algorithms to be carried out by a hypothetical computer, and she is often considered the first computer programmer.
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1700</td>
<td>Mary Wollstonecraft is born.</td>
</tr>
<tr>
<td>1702</td>
<td>Benjamin Franklin's kite experiment demonstrates that lightning is electricity, a crucial step in the development of the lightning rod.</td>
</tr>
<tr>
<td>1709</td>
<td>John Milton publishes <em>Paradise Lost</em>, an important text in the Creature's intellectual development.</td>
</tr>
<tr>
<td>1716</td>
<td>Hennig Brand discovers phosphorus through his experiments in alchemy.</td>
</tr>
<tr>
<td>1752</td>
<td>Mary Godwin is born.</td>
</tr>
<tr>
<td>1756</td>
<td>Mary Wollstonecraft is born.</td>
</tr>
<tr>
<td>1774</td>
<td>Joseph Priestley claims to discover oxygen (Carl Wilhelm Scheele and Antoine Lavoisier made similar discoveries around the same time). Scientists like Robert Boyle, one of the inventors of the air pump, had already demonstrated that air contained an element necessary to the preservation of life.</td>
</tr>
<tr>
<td>1782</td>
<td>Henry Fuseli's <em>The Nightmare</em> is first exhibited.</td>
</tr>
<tr>
<td>1783</td>
<td>Joseph-Michael and Jacques-Étienne de Montgolfier publicly demonstrate the hot air balloon for the first time. Hot air balloons are used as a means of transportation in Mary Shelley's futuristic novel <em>The Last Man</em> (1826).</td>
</tr>
<tr>
<td>1790</td>
<td>Mary Wollstonecraft publishes <em>A Vindication of the Rights of Men</em>. Luigi Galvani, the scientist who gave his name to galvanism, notices that a dead frog's legs can be made to twitch if exposed to electricity.</td>
</tr>
<tr>
<td>1794</td>
<td>Johann Wolfgang von Goethe publishes <em>The Sorrows of Young Werther</em>, an important text in the Creature's intellectual development and an important influence on Romantic literature.</td>
</tr>
<tr>
<td>1796</td>
<td>Matthew Gregory Lewis publishes <em>The Monk</em>. Mary Wollstonecraft publishes <em>Letters Written During a Brief Residence in Sweden, Norway, and Denmark</em>.</td>
</tr>
<tr>
<td>1797</td>
<td>William Godwin and Mary Wollstonecraft marry. Mary Godwin (later Shelley) is born. Mary Wollstonecraft dies of a puerperal fever, an infection related to childbirth. Mary Godwin (later Shelley) is born. Mary Wollstonecraft dies of a puerperal fever, an infection related to childbirth.</td>
</tr>
<tr>
<td>1798</td>
<td>Clara Mary Jane Clairmont, later known as Claire Clairmont, is born. *Mary Godwin (later Shelley) is born. Mary Wollstonecraft dies of a puerperal fever, an infection related to childbirth. Mary Godwin (later Shelley) is born. Mary Wollstonecraft dies of a puerperal fever, an infection related to childbirth.</td>
</tr>
</tbody>
</table>
## FRANKENSTEIN TIMELINE, 1800s

### 1800
- **Alessandro Volta**—the scientist for whom “voltage” is named—_invents the first electric battery._

### 1801
- **William Godwin and Mary Jane Clairmont marry.**

### 1803
- At the Royal College of Surgeons, _Giovanni Aldini applies electricity to the corpse of a murderer, making the body twitch and pound the table._

### 1804
- Five years after the Haitian Revolution begins as an uprising against slavery and colonialism, Haitian independence is won.

### 1809
- _William Godwin dies._

### 1810
- **Percy Bysshe Shelley and his sister Elizabeth publish _Original Poetry_ by Victor and Cesare, under pseudonyms. The collection was withdrawn from publication when it was revealed to contain plagiarized material._

### 1811
- **Percy Bysshe Shelley is expelled from University College, Oxford, when he refuses to deny authorship of _The Necessity of Atheism._**

### 1812
- _Humphry Davy, who isolated elements including chlorine, sodium, potassium, barium, and calcium at the beginning of the 19th century, publishes the first part of _Elements of Chemical Philosophy_, which Mary Shelley read while writing _Frankenstein._

### 1813
- **Eliza Ianthe Shelley is born to Percy Bysshe Shelley and Harriet Westbrook Shelley.**

### 1814
- **Percy Bysshe Shelley, Mary Godwin (later known as Mary Shelley), and Claire Clairmont run off to the Continent in secret.**

### 1816
- **Lord Byron writes “Darkness.”**

### 1817
- **Allegra Biron (originally named Alba) is born to Claire Clairmont and Lord Byron.**

### 1818
- **Frankenstein published.**
- _Clara Everina Shelley is born to Percy Bysshe and Mary Shelley._

### 1819
- **Percy Florence Shelley dies of malaria.**
- _Percy Florence Shelley, the Shelley’s one surviving child, is born in Florence, Italy._

### 1821
- _The daughter born to P.B. Shelley and Mary Godwin dies in the night at just twelve days old._

### 1822
- **Allegra Biron dies.**
- _Percy Bysshe Shelley drowns near Pisa with his friend Edward Ellerker Williams and the young Charles Vivian._
- **P.B. Shelley is cremated on the beach the next month; his friend Edward John Trelawny rescues his heart and parts of his skull from the pyre.**

### 1823
- _The first stage adaptation of _Frankenstein—_Richard Brinsley Peake’s melodrama _Presumption! or the Fait of Frankenstein—is performed. Thomas Potter Cooke appears as the Creature in a blue leotard and skin painted to match._

### 1824
- _Lord Byron dies in Missolonghi, Greece, where he had traveled to join the fight for Greek independence._
- _Percy Bysshe Shelley’s Posthumous Poems—painstakingly edited by Mary Shelley—are published, infuriating P.B. Shelley’s father, who threatens to cut off Mary Shelley’s meager allowance if she ever again brings her late husband’s name before the public eye._

### 1825
- _William Godwin, Jr., is born._

### 1826
- **The Last Man published.**
- _In the French adaptation of _Frankenstein, called _Le Monstre et le magicien, the title character is named Zametti and is a magician rather than a scientist._

### 1827
- _Henry Milner’s _Frankenstein; or, the Man and the Monster! is the first production to feature the creation scene. William Godwin, Jr., is born._

### 1830
- **Mary Shelley publishes _Frankenstein_—_or the Modern Prometheus._

### 1831
- **Significantly revised third edition of _Frankenstein_ is published.**

### 1836
- **Second edition of _Frankenstein_—_Richard Brinsley Peake’s melodrama _Presumption! or the Fait of Frankenstein—is performed. Thomas Potter Cooke appears as the Creature in a blue leotard and skin painted to match._

### 1839
- **Mary Jane Godwin (formerly Clairmont) dies.**

### 1849
- **Percy Florence Shelley dies.**
FRANKENSTEIN TIMELINE, 1900–2024

1900

Edison Studios releases the first film adaptation of Frankenstein.

1910

James Whale’s Frankenstein: The Man Who Made a Monster starring Boris Karloff as the Creature, introduces the iconic image of a green monster with a flat head and electrodes protruding from his neck.

1924

The Bride of Frankenstein, James Whale’s sequel to his successful 1931 Frankenstein, stars Boris Karloff as the Creature and Elsa Lanchester as both Mary Shelley and the bride of Frankenstein.

1925

The first Addams Family cartoon by Charles Addams appears in the New Yorker. Lurch, the family butler, bears an aesthetic similarity to Karloff’s Creature.

1931

The first Addams Family cartoon by Charles Addams appears in the New Yorker. Lurch, the family butler, bears an aesthetic similarity to Karloff’s Creature.

1933

Young Frankenstein, a comedy by Mel Brooks starring Gene Wilder, imagines the doctor’s descendants.

1935

The Bride of Frankenstein, James Whale’s sequel to his successful 1931 Frankenstein, stars Boris Karloff as the Creature and Elsa Lanchester as both Mary Shelley and the bride of Frankenstein.

1938

Marvel’s Monster of Frankenstein, written by Gary Friedrichs, makes the Creature the hero of the story and sets the action in 1898.

1940

The Classics Illustrated Frankenstein is a faithful comic version of the novel. The first atom bomb is dropped on Hiroshima, Japan; three days later, a second bomb is dropped on Nagasaki. As many as 226,000 people are estimated to have been killed in the bombings and their immediate aftermath.

1945

Abbott and Costello, the comic duo known for “Who’s On First?” release the horror-comedy film Abbott and Costello Meet Frankenstein.

1948

Kenneth Branagh’s Mary Shelley’s Frankenstein, starring Branagh, Robert De Niro, and Helena Bonham Carter, attempts to adapt the novel more faithfully than many other dramatic adaptations.

1950

The first Addams Family cartoon by Charles Addams appears in the New Yorker. Lurch, the family butler, bears an aesthetic similarity to Karloff’s Creature.

1953

James Watson and Francis Crick publish the double-helix model of DNA structure, based on Rosalind Franklin’s x-ray diffraction image.

1958

I Was a Teenage Frankenstein features a sympathetic hero who has been disfigured in a car accident. Frankenstein 1970 stars the aging Boris Karloff as the last of the Franksteins, a penniless scientist who becomes his own creation.

1965

In Frankenstein Conquers the World, from Tokyo’s Toho Studios, the atomic bomb dropped on Hiroshima gives life to a destructive monster.

1969

Neil Armstrong walks on the moon.

1973

Young Frankenstein, a comedy by Mel Brooks starring Gene Wilder, imagines the doctor’s descendants.

1974

The first atom bomb is dropped on Hiroshima, Japan; three days later, a second bomb is dropped on Nagasaki. As many as 226,000 people are estimated to have been killed in the bombings and their immediate aftermath.

1975

Dolly the sheep is the first mammal cloned from the genetic material of an adult.

2000

Frankenstein, directed by Danny Boyle, is performed at the National Theatre. Benedict Cumberbatch and Jonny Lee Miller alternate performances as Victor Frankenstein and the Creature.

2011

It’s Alive! Frankenstein at 200 | The Morgan Library & Museum
GUIDE TO FILM ADAPTATIONS WITH TIMESTAMPs

THREE KEY SCENES

Below are three key scenes in the Frankenstein novel that were also adapted for four different film versions. Choose one or more for the class to read, view, and analyze. Page number citations are from the 2007 Penguin edition of Frankenstein. For further reading, please see ‘Section Four: Frankenstein on Stage and Screen; Other Adaptations’ in the curriculum.

SCENE: THE CREATION

1. Have students read the Creation scene in the novel (Frankenstein; or, The Modern Prometheus - Novel) Volume 1 Chapters 4 & 5, Chapter 4 (building the monster), Chapter 5

“It was on a dreary night of November, that I beheld the accomplishment of my toils. With an anxiety that almost amounted to agony, I collected the instruments of life around me, that I might infuse a spark of being into the lifeless thing that lay at my feet. It was already one in the morning; the rain pattered dismally against the panes, and my candle was nearly burnt out, when, by the glimmer of the half-extinguished light, I saw the dull yellow eye of the creature open; it breathed hard, and a convulsive motion agitated its limbs” (58).

2. Have students choose one (or more) film adaptation(s) to compare to the text:

Frankenstein: The Man Who Made a Monster (1931)
• Start Time: 00:14:10
• End Time: 00:25:18
• Run Time: 11 Minutes, 8 Seconds

The Bride of Frankenstein (1935)
• Start Time: 00:57:13
• End Time: 01:10:03
• Run Time: 12 Minutes, 50 Seconds

Young Frankenstein (1974)
• Start Time: 00:40:52
• End Time: 00:58:15
• Run Time: 17 Minutes, 23 Seconds

Mary Shelley’s Frankenstein (1994)
• Start Time: 00:38:57
• End Time: 00:50:23
• Run Time: 11 Minutes, 26 Seconds
SCENE: THE CREATURE AND CHILD

1. Have students read the scene involving the monster and the child in the novel *(Frankenstein; or, The Modern Prometheus - Novel)* Volume 2, Chapter 8 (or Chapter 16 if the copy doesn’t have volumes listed)

“I was scarcely hid, when a young girl came running towards the spot where I was concealed, laughing, as if she ran from some one in sport. She continued her course along the precipitous sides of the river, when suddenly her foot slipt, and she fell into the rapid stream. I rushed from my hiding-place, and with extreme labour from the force of the current, saved her, and dragged her to shore. She was senseless; and I endeavoured, by every means in my power, to restore animation, when I was suddenly interrupted by the approach of a rustic, who was probably the person from whom she had playfully fled. On seeing me, he darted towards me, and tearing the girl from my arms, hastened towards the deeper parts of the wood. I followed speedily, I hardly knew why; but when the man saw me draw near, he aimed a gun, which he carried, at my body, and fired” (142-143).

2. Have students choose one (or more) iconic film adaptation(s) to compare to the text:

*Frankenstein: The Man Who Made a Monster* (1931)
- Start Time: 00:47:42
- End Time: 00:50:23
- Run Time: 2 Minutes, 53 Seconds

*Young Frankenstein* (1974)
- Start Time: 01:04:52
- End Time: 01:06:32
- Run Time: 1 Minute, 40 Seconds

*Mary Shelley’s Frankenstein* (1994)
- Start Time: 01:14:44
- End Time: 01:18:08
- Run Time: 3 Minutes, 24 Seconds
SCENE: THE WOMAN ON THE BED

1. Have students read of Elizabeth’s fate.
   *(Frankenstein; or, The Modern Prometheus - Novel)* Volume 3, Chapter 6 (or Chapter 23 if the copy doesn’t have volumes listed)
   “She was there, lifeless and inanimate, thrown across the bed, her head hanging down, and her pale and distorted features half covered by her hair. Every where I turn I see the same figure - her bloodless arms and relaxed form flung by the murderer on its bridal bier” (199).

2. Have students choose one (or more) iconic film adaptation(s) to compare to the text:

   **Frankenstein: The Man Who Made a Monster** (1931)
   - Start Time: 00:54:12
   - End Time: 00:55:30
   - Run Time: 1 Minute, 18 Seconds

   **Young Frankenstein** (1974)
   - Start Time: 01:32:42
   - End Time: 01:35:23
   - Run Time: 2 Minutes, 41 Seconds

   **Mary Shelley’s Frankenstein** (1994)
   - Start Time: 01:39:42
   - End Time: 01:41:12
   - Run Time: 1 Minute, 30 Seconds

Have students compare and contrast their chosen scenes with the novel. What is similar? What is different? How does viewing a scene affect the audience differently than reading a scene? Does the artistic license of the director impact how you interpret the scene and its characters? Please compare and contrast, explaining your ideas.
RELATED FILMS

NOTE FOR TEACHERS:
This supplement expands on curriculum Section Four: Frankenstein on Stage and Screen; Other Adaptations. It contains an alternate discussion focus for the James Whale film and additional film suggestions related to Frankenstein with discussion points and activities.

1. **Frankenstein: The Man Who Made a Monster** (James Whale/1931/71 minutes)

While the Creature is never precisely described in Mary Shelley’s novel, it can be argued that Boris Karloff’s portrayal of the Creature continues to be the dominant visual image to this day. This can be attributed to various creative decisions on Karloff’s part as an actor, but is also in large part due to the makeup. Jack P. Pierce, who went on to provide makeup for other horror films such as *Dracula, The Bride of Frankenstein, The Wolf Man,* and *Phantom of the Opera,* worked for weeks with Karloff to combine Pierce and Whale’s ideas and create the look of the movie’s monster. However, contemporary viewers may struggle to find the 1931 film as scary today as it was to its original audiences. It is theorized that “…horror like humor is a cultural construct redefined by each new generation.”

DISCUSSION PROMPTS:

- Once the students have read the novel, have them reflect on whether they find the story frightening. Do the ideas presented in in the book feel outdated or too familiar?

- Have the students screen *Frankenstein: The Man Who Made a Monster.* Ask students to discuss cinematic elements that may have been terrifying to a 1931 audience. Are these techniques still used today in film? What do you think defines a horror/scary movie? Do any modern films remind them of Whale’s film?

- Ask students to reimagine a scene from the 1931 film. Develop a performance style for the Creature or the bride from the 1935 sequel. Include elements such as costume design or effects makeup. For example, will their version speak? How will he/she move? How will they depict the otherness of the Creature?

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2. Mary Shelley’s Frankenstein (Kenneth Branagh/1994/123 minutes)

In the 1994 film Mary Shelley’s Frankenstein, director and star Kenneth Branagh attempted to adapt the novel more faithfully than the 1931 Whale film. Despite innovative makeup, modern special effects, and the inclusion of novel elements such as the Robert Walton storyline, the film is generally considered to be a flop.² It is criticized for lacking the iconic power of either the original novel or the Whale film.

DISCUSSION PROMPTS:

Ask the students to discuss the idea of adaptation. What are some of their favorite literary adaptations (to film)? Why are they successful? How do the films differ from the books?

Ask students to debate the idea of the “book is always better than the movie.” Are there exceptions to this? What are examples?

Compare The Bride of Frankenstein and Mary Shelley’s Frankenstein and their attempts to add Mary Shelley as a character to her own novel. In Bride, Elsa Lanchester plays a double role as Mary Shelley/The Bride. In the Branagh film, the character of Elizabeth is updated to resemble Branagh’s version of Mary Shelley’s personality. After Elizabeth is murdered, she is reanimated as a second Creature (using other body parts from the character of Justine) and is ultimately so distraught to find out what’s been done to her that she commits suicide. Ask students to discuss how they might add Mary Shelley to an adaptation of the novel.

3. The Iron Giant (Brad Bird/1999/86-90 minutes)

The film *The Iron Giant* “tells the tale of an artificial being that, in precise contrast to Frankenstein’s monster, receives the proper nurturing and moral education from a warm-hearted surrogate parent...”\(^3\) This animated film tells the story of an interstellar robot who crashes on Earth with no memories or programming and is adopted by a human boy, Hogarth. Like the Creature of Shelley’s novel, the robot is a blank slate. *The Iron Giant* “…matches Shelley’s novel almost point for point in terms of the monster’s education and emotional development, with each deviation remaining explicitly within the bounds of how, in [director] Bird’s understanding, Shelley’s monster might have ended up.”\(^4\) This contemporary reimagining features an absent creator, but unlike Mary Shelley’s novel, imagines a scenario where characters reminiscent of the de Lacey family actually accept the Creature. The character of the Iron Giant is a destructive machine built for war. But, due to his education from Hogarth, the giant is able to override his programming and protect his new human family.

**DISCUSSION PROMPTS:**

- Before viewing *The Iron Giant*, ask the students to reflect on the Creature’s lack of parenting and discuss how this influenced the development of his character.

- Ask students to consider nature vs. nurture. Do they think the Creature’s true nature was violent? Or is it a product of his lack of nurturing by Victor Frankenstein?

- Now view *The Iron Giant* and ask students to draw parallels between the two “monster” characters.

- If students have also viewed other film adaptations, such as James Whale’s, ask them if they see any similarities between *The Iron Giant* and other Frankenstein film adaptations. Where are they similar? Where do they deviate? Is the Iron Giant more similar to one adaptation over another?

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\(^4\) Ibid, p. 386.

Director Tim Burton has paid tribute, or homage, to the *Frankenstein* story in his films, often including strong visual references to the work of James Whale. The most direct example of this is his 1984 live action short *Frankenweenie*. Set in suburbia, this film reimagines the *Frankenstein* story by making the Creature the reanimated dog of a young boy. The short was one of Burton's first projects while working as an animator for Walt Disney Pictures. Clearly a project that stuck with Burton, he was able to expand the short in 2012 into an animated feature-length film for none other than Walt Disney Pictures.

Burton regularly includes elements of his suburban upbringing in his films. Oftentimes, these visual representations of Burton's suburbia are parodies of Burbank, California, where Burton was raised. A prime example of this is the 1990 film *Edward Scissorhands*. While Burton himself likens this film to a fairy tale, and scholarship around the film highlights particular elements of *Beauty and the Beast*, there are similarities and visual representations that bear strong resemblance to *Frankenstein* as well. Edward is a man-made being left only partially complete after his creator dies unexpectedly. Edward's otherness is represented by his hands, which are scissor blades. This film depicts a scenario where Edward is initially kindly cared for by his creator. Upon his creator's death and absence, he is then taken in by a sympathetic family and continues his discovery of the outside world. However, Edward's journey is ultimately circular; although embraced by some members of the community, he is ostracized by others and eventually targeted, prompting the town's residents and “...the housewives in *Edward Scissorhands* [to] turn into the villagers in *Frankenstein*...”

**DISCUSSION PROMPTS:**

- Ask students how they feel about the Creature being a dog in *Frankenweenie*. How does a dog's inability to talk reflect other adaptations of the Creature?

- Can they provide examples of characters in different films that are labeled “monster” or evil but who they also find sympathetic?

- Discuss the idea of “parody,” an imitation of a style with deliberate exaggeration for comic effect. How does the 1984 short *Frankenweenie* parody imagery and scenes from the 1931 *Frankenstein*?

- Can you think of other literary adaptations or horror films that also have parodies? What are those films? What cinematic elements are similar among these parody examples?

- While Johnny Depp still has visible scars, his character in *Edward Scissorhands* is more attractive than most adaptations of *Frankenstein*. How does this affect the plot in both stories? If the creature in the novel had been “beautiful,” would his life have been different?

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7 Gavin. p. 63.
WOLLSTONECRAFT AND GODWIN WRITING SUPPLEMENT

MARY WOLLSTONECRAFT’S VINDICATION OF THE RIGHTS OF WOMAN

NOTE FOR TEACHERS:
This selection is a concise summary of Wollstonecraft’s main arguments—(1) that it is unfair to deny women an equal education and then ridicule them for being uneducated, and (2) that the education of women will benefit all of society by making them more capable mothers. It might provide an opportunity to discuss how ideas of education and feminism feature in *Frankenstein*.

(Excerpt is from the author’s introduction to her work)

“The education of women has, of late, been more attended to than formerly; yet they are still reckoned a frivolous sex, and ridiculed or pitied by the writers who endeavour by satire or instruction to improve them. It is acknowledged that they spend many of the first years of their lives in acquiring a smattering of accomplishments; meanwhile strength of body and mind are sacrificed to libertine notions of beauty, to the desire of establishing themselves,—the only way women can rise in the world,—by marriage. And this desire making mere animals of them, when they marry they act as such children may be expected to act:—they dress; they paint, and nickname God’s Creatures.—Surely these weak beings are only fit for a seraglio! Can they be expected to govern a family with judgment, or take care of the poor babes whom they bring into the world?

If then it can be fairly deduced from the present conduct of the sex, from the prevalent fondness for pleasure which takes place of ambition and those nobler passions that open and enlarge the soul; that the instruction which women have hitherto received has only tended, with the constitution of civil society, to render them insignificant objects of desire—mere propagators of fools!—if it can be proved that in aiming to accomplish them, without cultivating their understandings, they are taken out of their sphere of duties, and made ridiculous and useless when the short-lived bloom of beauty is over, I presume that rational men will excuse me for endeavouring to persuade them to become more masculine and respectable.”

DISCUSSION PROMPTS:

1. Wollstonecraft challenged her readers with a new way to raise daughters that would affect both men and women. What are changes Mary Wollstonecraft suggests for the education of women and why? Do students think any of her criticisms of women’s education still apply today?

2. Do students think the book *Frankenstein* contains feminist ideas? Discuss why or why not. Encourage students to examine how an absence of women is significant to the plot and characters. For example: What might have been different if Victor’s mother had lived? What if the Creature had a mother or mother figure? How might the plot change if Elizabeth had gone to school with Victor?
WILLIAM GODWIN'S *POLITICAL JUSTICE*:

NOTE FOR TEACHERS:

This excerpt is the most representative of *Political Justice* as a whole—and also more accessible than much of his other writing. It suggests a number of fruitful possibilities for discussion, such as the relationship between the individual and the state (which could connect to Justine's false conviction and execution), or the notion of progress (which could connect to Victor Frankenstein's early habit of "look[ing] backward" for scientific knowledge), and the relationship between social interaction and the pursuit of knowledge (which could connect to the Creature's moral and intellectual development, and the effect of his encounters with cruelty on his still-developing consciousness). The bolded section could be used on its own if time is limited.

BOOK 1, CHAPTER 4:

...[I]t may reasonably be doubted whether error could ever be formidable or long-lived, if government did not lend it support. The nature of mind is adapted to the perception of ideas, their correspondence and difference. In the right discernment of these is its true element and most congenial pursuit. Error would indeed for a time have been the result of our partial perceptions; but, as our perceptions are continually changing, and continually becoming more definite and correct, our errors would have been momentary, and our judgments have hourly approached nearer to the truth....

A system of government, that should lend no sanction to ideas of fanaticism and hypocrisy, would presently accustom its subjects to think justly upon topics of moral worth and importance. A state, that should abstain from imposing contradictory and impracticable oaths, and thus perpetually stimulating its members to concealment and perjury, would soon become distinguished for plain dealing and veracity. A country, in which places of dignity and confidence should cease to be at the disposal of faction, favour and interest, would not long be the residence of servility and deceit.

These remarks suggest to us the true answer to an obvious objection, that might otherwise present itself, to the conclusion to which these principles appear to lead. It might be said, that an erroneous government can never afford an adequate solution for the existence of moral evil, since government was itself the production of human intelligence, and therefore, if ill, must have been indebted for its ill qualities to some wrong which had previous existence.

The proposition asserted in this objection is undoubtedly true. All vice is nothing more than error and mistake reduced into practice, and adopted as the principle of our conduct. But error is perpetually hastening to its own detection. Vicious conduct is soon discovered to involve injurious consequences. Injustice therefore by its own nature is little fitted for a durable existence. But government "lays its hand upon the spring there is in society, and puts a stop to its motion." It gives substance and permanence to our errors. It reverses the genuine propensities of mind, and, instead of suffering us to look forward, teaches us to look backward for perfection. It prompts us to seek the public welfare, not in innovation and improvement, but in a timid reverence for the decisions of our ancestors, as if it were the nature of mind always to degenerate, and never to advance.

DISCUSSION PROMPTS:

- Discuss the excerpt in the context of the events of the time—especially the French Revolution. [See timeline supplement for more information.] How would this argument affect readers debating the merits of democratic governments versus monarchies?
- “Vicious conduct is soon discovered to involve injurious consequences.” The Creature experiences cruelty and gradually becomes a murderer. How does the Creature’s turn to violence relate to Godwin’s arguments about the role of government for its citizens?
DISCUSSION PROMPTS:

Burke’s Reflections sparked a literary “pamphlet war” between writers about the French Revolution and the questions it brought up related to political systems and institutions. Wollstonecraft’s Vindication texts began as replies to Burke. Some scholars argue that the heart of the debate was the understanding of democracy—and whether it would ultimately tend toward savagery or toward civilization. Wollstonecraft argued for civilization and Burke for savagery.

- Where do students see these arguments play out in Frankenstein if at all?
- Where do they see them playing out in today’s world?

For further exploration of this material, read this article from the British Library:
COMMON CORE STATE STANDARDS AND NEXT GENERATION SCIENCE STANDARDS

ENGLISH LANGUAGE ARTS STANDARDS
READING: LITERATURE | GRADE 9-10

Key Ideas and Details:

CCSS.ELA-LITERACY.RL.9-10.1
Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

CCSS.ELA-LITERACY.RL.9-10.2
Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.

CCSS.ELA-LITERACY.RL.9-10.3
Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.

Craft and Structure:

CCSS.ELA-LITERACY.RL.9-10.4
Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language evokes a sense of time and place; how it sets a formal or informal tone).

CCSS.ELA-LITERACY.RL.9-10.5
Analyze how an author’s choices concerning how to develop and relate elements of a story or drama (e.g., where a story is set, how the action is ordered, how the characters are introduced and developed).

ENGLISH LANGUAGE ARTS STANDARDS
READING: LITERATURE | GRADE 11-12

Key Ideas and Details:

CCSS.ELA-LITERACY.RL.11-12.1
Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.

CCSS.ELA-LITERACY.RL.11-12.2
Determine two or more themes or central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to produce a complex account; provide an objective summary of the text.

CCSS.ELA-LITERACY.RL.11-12.3
Analyze the impact of the author’s choices regarding how to develop and relate elements of a story or drama (e.g., where a story is set, how the action is ordered, how the characters are introduced and developed).
Craft and Structure:

**CCSS.ELA-LITERACY.RL.11-12.4**
Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including words with multiple meanings or language that is particularly fresh, engaging, or beautiful. (Include Shakespeare as well as other authors.)

**CCSS.ELA-LITERACY.RL.11-12.5**
Analyze how an author’s choices concerning how to structure specific parts of a text (e.g., the choice of where to begin or end a story, the choice to provide a comedic or tragic resolution) contribute to its overall structure and meaning as well as its aesthetic impact.

Integration of Knowledge and Ideas:

**CCSS.ELA-LITERACY.RL.11-12.7**
Analyze multiple interpretations of a story, drama, or poem (e.g., recorded or live production of a play or recorded novel or poetry), evaluating how each version interprets the source text.

ENGLISH LANGUAGE ARTS STANDARDS
WRITING | GRADE 9-10

Text Types and Purposes:

**CCSS.ELA-LITERACY.W.9-10.1**
Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

Production and Distribution of Writing:

**CCSS.ELA-LITERACY.W.9-10.4**
Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

Research to Build and Present Knowledge:

**CCSS.ELA-LITERACY.W.9-10.7**
Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

**CCSS.ELA-LITERACY.W.9-10.9**
Draw evidence from literary or informational texts to support analysis, reflection, and research.

ENGLISH LANGUAGE ARTS STANDARDS
WRITING | GRADE 11-12

Text Types and Purposes:

**CCSS.ELA-LITERACY.W.11-12.1**
Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
Production and Distribution of Writing:

**CCSS.ELA-LITERACY.W.11-12.4**
Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

Research to Build and Present Knowledge:

**CCSS.ELA-LITERACY.W.11-12.7**
Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

**CCSS.ELA-LITERACY.W.11-12.8**
Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

**ENGLISH LANGUAGE ARTS STANDARDS**

**SPEAKING & LISTENING | GRADE 9-10**

Comprehension and Collaboration:

**CCSS.ELA-LITERACY.SL.9-10.1**
Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.

**CCSS.ELA-LITERACY.SL.9-10.1.A**
Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.

**CCSS.ELA-LITERACY.SL.9-10.1.C**
Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.

**CCSS.ELA-LITERACY.SL.9-10.1.D**
Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.

Presentation of Knowledge and Ideas:

**CCSS.ELA-LITERACY.SL.9-10.5**
Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.
It’s Alive! Frankenstein at 200

ENGLISH LANGUAGE ARTS STANDARDS
SPEAKING & LISTENING | GRADE 11-12

Comprehension and Collaboration:

CCSS.ELA-LITERACY.SL.11-12.1
Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.

CCSS.ELA-LITERACY.SL.11-12.1.A
Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.

CCSS.ELA-LITERACY.SL.11-12.1.C
Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.

CCSS.ELA-LITERACY.SL.11-12.1.D
Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.

CCSS.ELA-LITERACY.SL.11-12.2
Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.

Presentation of Knowledge and Ideas:

CCSS.ELA-LITERACY.SL.11-12.4
Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

CCSS.ELA-LITERACY.SL.11-12.5
Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

ENGLISH LANGUAGE ARTS STANDARDS
SCIENCE & TECHNICAL SUBJECTS | GRADE 9-10

Craft and Structure:

CCSS.ELA-LITERACY.RST.9-10.4
Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.
CCSS.ELA-LITERACY.RST.9-10.6
Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.

ENGLISH LANGUAGE ARTS STANDARDS
SCIENCE & TECHNICAL SUBJECTS | GRADE 11-12

Craft and Structure:
CCSS.ELA-LITERACY.RST.11-12.4
Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.

CCSS.ELA-LITERACY.RST.11-12.6
Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.

NEXT GENERATION SCIENCE STANDARDS (NGSS)
NATURE OF SCIENCE - CROSSCUTTING CONCEPTS

• Science Is a Way of Knowing:

• Science is both a body of knowledge that represents a current understanding of natural systems, and the processes used to refine, elaborate, revise, and extend this knowledge

• Science knowledge has a history that includes the refinement of, and changes to theories, ideas, and beliefs over time.

Science Is a Human Endeavor

• Scientific knowledge is a result of human endeavor, imagination, and creativity.

• Technological advances have influenced the progress of science and science has influenced advances in technology.

• Science and engineering are influenced by society, and society is influenced by science and engineering.

Science Addresses Questions About the Natural and Material World

• Not all questions can be answered by science.

• Science and technology may raise ethical issues for which science, by itself, does not provide answers and solutions.

• Science knowledge indicates what can happen in natural systems—not what should happen. The latter involves ethics, values, and human decisions about the use of knowledge.

• Many decisions are not made using science alone, but rely on social and cultural context to resolve issues.