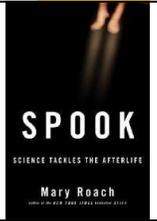
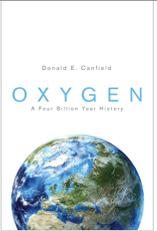
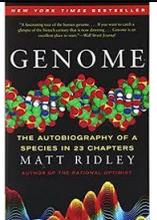
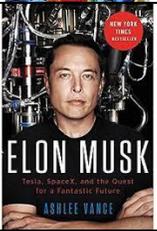
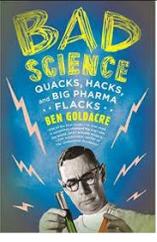
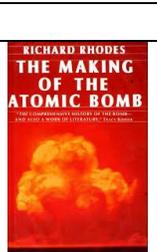


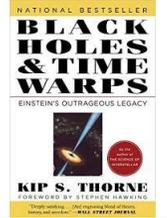
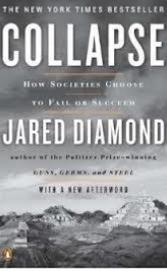
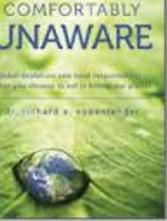
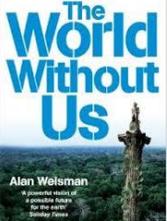
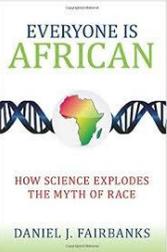
Grade 10 Science Summer Reading List 2017

Using this sheet, select a science book to read over the summer.

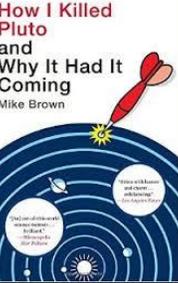
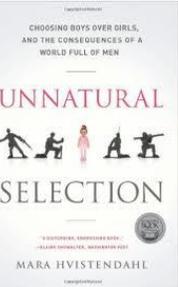
Titles are Hot-Linked to Amazon.com

Non-Fiction Title & Author	Cover	Synopsis:
<p>1. <u>How to Clone a Mammoth: The Science of De-Extinction</u></p> <p>By Beth Shapiro</p>		<p>Could extinct species, like mammoths and passenger pigeons, be brought back to life? The science says yes. <i>In How to Clone a Mammoth</i>, Beth Shapiro, evolutionary biologist and pioneer in "ancient DNA" research, walks readers through the astonishing and controversial process of de-extinction.</p>
<p>2. <u>Spook: Science Tackles the Afterlife</u></p> <p>By Mary Roach</p>		<p>"What happens when we die? Does the light just go out and that's that—the million-year nap? Or will some part of my personality, my meanness persist?" In an attempt to find out, Mary Roach brings her tireless curiosity to bear on an array of contemporary and historical soul-searchers; all trying to prove (or disprove) that life goes on after we die.</p>
<p>3. <u>Oxygen: A Four Billion Year History</u></p> <p>By Donald Canfield</p>		<p>The air we breathe is twenty-one percent oxygen, an amount higher than on any other known world. While we may take our air for granted, Earth was not always an oxygenated planet. How did it become this way? Donald Canfield—one of the world's leading authorities on geochemistry, earth history, and the early oceans—covers this vast history, emphasizing its relationship to the evolution of life and the evolving chemistry of the Earth.</p>
<p>4. <u>Genome: The Autobiography of a Species in 23 Chapters</u></p> <p>By Matt Ridley</p>		<p>Each gene has a story to tell, and Ridley skillfully selects one story for each human chromosome pair as a thread in a tapestry of interwoven themes of human nature: life and fate; death and immortality; health, healing, and disease; instinct, memory, learning, intelligence, personality, and behavior; sex; cooperation and competition; determinism and free will; heredity, environment, and culture.</p>
<p>5. <u>Elon Musk: Tesla, SpaceX, and the Quest for a Fantastic Future</u></p> <p>By Ashlee Vance</p>		<p>Vance uses Musk's story to explore one of the pressing questions of our time: can the nation of inventors and creators which led the modern world for a century still compete in an age of fierce global competition? He argues that Musk--one of the most unusual and striking figures in American business history--is a contemporary amalgam of legendary inventors and industrialists like Thomas Edison, Henry Ford, Howard Hughes, and Steve Jobs</p>
<p>6. <u>Bad Science: Quacks, Hacks, and Big Pharma Flacks</u></p> <p>By Ben Goldacre</p>		<p>Have you ever wondered how one day the media can assert that alcohol is bad for us and the next unashamedly run a story touting the benefits of daily alcohol consumption? Or how a drug that is pulled off the market for causing heart attacks ever got approved in the first place? How can average readers, who aren't medical doctors or Ph.Ds. in biochemistry, tell what they should be paying attention to and what's, well, just more crap? Ben Goldacre has made a point of exposing quack doctors and nutritionists, bogus credentialing programs, and biased scientific studies.</p>
<p>7. <u>Making of the Atomic Bomb</u></p> <p>By Richard Rhodes</p>		<p>Twenty-five years after its initial publication, <i>The Making of the Atomic Bomb</i> remains the definitive history of nuclear weapons and the Manhattan Project. Richard Rhodes's Pulitzer Prize-winning book details the science, the people, and the socio-political realities that led to the development of the atomic bomb. Reading like a character-driven suspense novel, the book introduces the players in this saga of physics, politics, and human psychology</p>

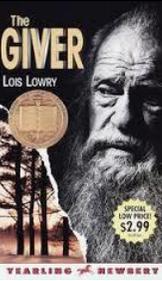
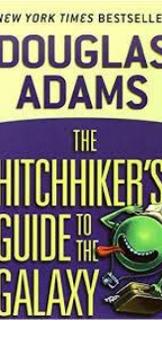
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<p>8. Black Holes & Time Warps: Einstein's Outrageous Legacy</p> <p>By Kip Thorne</p>		<p>Which of these bizarre phenomena, if any, can really exist in our universe? Black holes, down which anything can fall but from which nothing can return; wormholes, short space warps connecting regions of the cosmos; singularities, where space and time are so violently warped that time ceases to exist and space becomes a kind of foam; gravitational waves, which carry symphonic accounts of collisions of black holes billions of years ago; and time machines, for traveling backward and forward in time.</p>
<p>9. Collapse: How Societies Choose to Fail or Succeed</p> <p>By Jared Diamond</p>		<p>Environmental damage, climate change, globalization, rapid population growth, and unwise political choices were all factors in the demise of societies around the world, but some found solutions and persisted. Diamond traces the fundamental pattern of catastrophe, and weaves an all-encompassing global thesis through a series of fascinating historical-cultural narratives. Collapse moves from the Polynesian cultures on Easter Island to the flourishing American civilizations of the Anasazi and the Maya and finally to the doomed Viking colony on Greenland. Similar problems face us today and have already brought disaster to Rwanda and Haiti, even as China and Australia are trying to cope in innovative ways</p>
<p>10. Comfortably Unaware: What We Choose to Eat is Killing Us and Our Planet</p> <p>By Dr. Richard Oppenlander</p>		<p>In <i>Comfortably Unaware</i>, Dr. Richard Oppenlander tackles the crucial issue of global depletion as it relates to food choice. We should all be committed, he tells us, to understanding the reality and consequences of our diet, the footprint it makes on our environment, and seek food products that are in the best interest of all living things. His forthright information and stark mental images are often disturbing-and that's how it should be.</p>
<p>11. The World Without Us</p> <p>By Alan Weisman</p>		<p>If human beings disappeared instantaneously from the Earth, what would happen? What creatures would emerge from the dark and swarm? How would our treasured structures--our tunnels, our bridges, our homes, our monuments--survive the unmitigated impact of a planet without our intervention? In his revelatory, bestselling account, Alan Weisman draws on every field of science to present an environmental assessment like no other.</p>
<p>12. Everyone is African: How Science Explodes the Myth of Race</p> <p>By Daniel J. Fairbanks</p>		<p>What does science say about race? In this book a distinguished research geneticist presents abundant evidence showing that traditional notions about distinct racial differences have little scientific foundation. In short, racism is not just morally wrong; it has no basis in fact.</p> <p>Both geneticists and anthropologists now generally agree that the human species originated in sub-Saharan Africa and darkly pigmented skin was the ancestral state of humanity. Moreover, worldwide human diversity is so complex that discrete races cannot be genetically defined. And for individuals, ancestry is more scientifically meaningful than race. This is an enlightening book that goes a long way toward dispelling the irrational notions at the heart of racism.</p>
<p>13. Mars: Our Future on the Red Planet</p> <p>By Leonard David</p>		<p>The next frontier in space exploration is Mars, the red planet—and human habitation of Mars isn't much farther off. Now the National Geographic Channel goes years fast-forward with "Mars," a six-part series documenting and dramatizing the next 25 years as humans land on and learn to live on Mars. Filled with vivid photographs taken on Earth, in space, and on Mars; arresting maps; and commentary from the world's top planetary scientists, this fascinating book will take you millions of miles away—and decades into the future—to our next home in the solar system.</p>

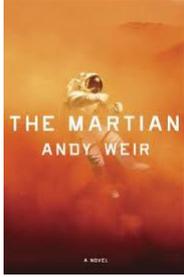
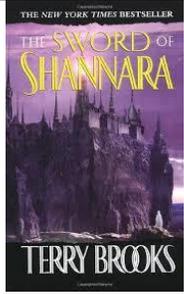
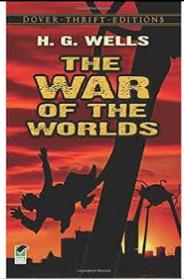
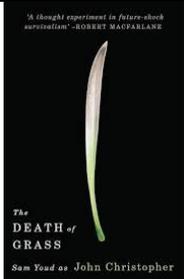
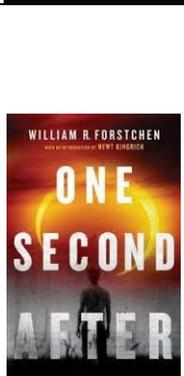
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<p>14. Six Degrees: Our Future on a Hotter Planet</p> <p>By Mark Lynas</p>		<p>Possibly the most graphic treatment of global warming that has yet been published, <i>Six Degrees</i> is what readers of Al Gore's best-selling <i>An Inconvenient Truth</i> or Ross Gelbspan's <i>Boiling Point</i> will turn to next. Written by the acclaimed author of <i>High Tide</i>, this highly relevant and compelling book uses accessible journalistic prose to distill what environmental scientists portend about the consequences of human pollution for the next hundred years.</p>
<p>16. Hunting the 1918 Flu</p> <p>By Kirsty Duncan</p>		<p>In 1918 the Spanish flu epidemic swept the world and killed an estimated 20 to 40 million people in just one year, more than the number that died during the four years of the First World War. To this day medical science has been at a loss to explain the Spanish flu's origin. Most virologists are convinced that sooner or later a similarly deadly flu virus will return with a vengeance; thus anything we can learn from the 1918 flu may save lives in a new epidemic. The author, herself a medical geographer, is very frank about her bruising emotional, financial, and professional experiences on the 'dark side of science.'</p>
<p>17. How I Killed Pluto and Why It Had It Coming</p> <p>By Mike Brown</p>		<p>The solar system most of us grew up with included nine planets, with Mercury closest to the sun and Pluto at the outer edge. Then, in 2005, astronomer Mike Brown made the discovery of a lifetime: a tenth planet, Eris, slightly bigger than Pluto. But instead of adding one more planet to our solar system, Brown's find ignited a firestorm of controversy that culminated in the demotion of Pluto from real planet to the newly coined category of "dwarf" planet. Suddenly Brown was receiving hate mail from schoolchildren and being bombarded by TV reporters</p>
<p>18. Unnatural Selection: Choosing Boys Over Girls, and the Consequences of a World Full of Men</p> <p>By Mara Hvistendahl</p>		<p>In 2007, the booming port city of Lianyungang achieved the dubious distinction of having the most extreme gender ratio for children under five in China: 163 boys for every 100 girls. The numbers may not matter much to the preschool set. But in twenty years the skewed sex ratio will pose a colossal challenge. When Lianyungang's children reach adulthood, their generation will have twenty-four million more men than women.</p> <p>What does this mean for our future? The sex ratio imbalance has already led to a spike in sex trafficking and bride buying across Asia, and it may be linked to a recent rise in crime there as well. More far-reaching problems could be on the horizon: From ancient Rome to the American Wild West, historical excesses of men have yielded periods of violence and instability. Traveling to nine countries, Mara Hvistendahl has produced a stunning, impeccably researched book that examines not only the consequences of the misbegotten policies underlying sex selection but also the West's role in creating them.</p>
<p>19 Hidden Figures: The American Dream and the Untold Story of the Black Women Mathematicians Who Helped Win the Space Race</p> <p>By Margot Lee Shetterly</p>		<p>A group of exceptionally talented African American women known as "human computers" used pencils, slide rules and adding machines to calculate the numbers that would launch rockets, and astronauts, into space. Originally relegated to teaching math in the South's segregated public schools, they were called into service during the labor shortages of World War II, when America's aeronautics industry was in dire need of anyone who had the right stuff. <i>Hidden Figures</i> follows the interwoven accounts of Dorothy Vaughan, Mary Jackson, Katherine Johnson and Christine Darden, four African American women who participated in some of NASA's greatest successes. It chronicles their careers over nearly three decades they faced challenges, forged alliances and used their intellect to change their own lives, and their country's future.</p>

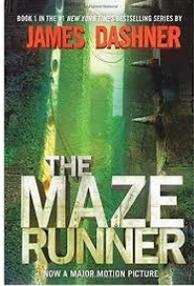
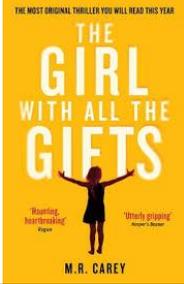
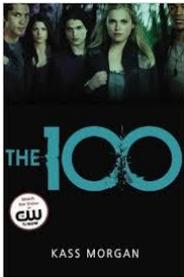
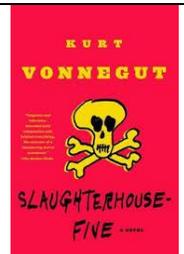
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Fiction Title and Author	Cover	Synopsis:
<p>1. 2312</p> <p>By Kim Stanley Robinson</p>		<p>The year is 2312. Scientific and technological advances have opened gateways to an extraordinary future. Earth is no longer humanity's only home; new habitats have been created throughout the solar system on moons, planets, and in between. But in this year, 2312, a sequence of events will force humanity to confront its past, its present, and its future. The first event takes place on Mercury, For Swan Er Hong, it is an event that will change her life. Swan was once a woman who designed worlds. Now she will be led into a plot to destroy them.</p>
<p>2. The Giver</p> <p>By Lois Lowry</p>		<p><i>The Giver</i>, the 1994 Newbery Medal winner is a haunting story centers on twelve-year-old Jonas, who lives in a seemingly ideal, if colorless, world of conformity and contentment. Not until he is given his life assignment as the Receiver of Memory does he begin to understand the dark, complex secrets behind his fragile community. Lois Lowry has written three companion novels to <i>The Giver</i>, including <i>Gathering Blue</i>, <i>Messenger</i>, and <i>Son</i></p>
<p>3. The Windup Girl</p> <p>By Paulo Bacigalupi</p>		<p>What happens when calories become currency? What happens when bio-terrorism becomes a tool for corporate profits? Emiko is the Windup Girl, not human; but an engineered being, grown and programmed to satisfy the decadent whims of a Kyoto businessman, but now abandoned to the streets of Bangkok. Regarded as soulless beings by some, devils by others, New People are slaves, soldiers, and toys of the rich in this chilling near future in which calorie companies rule the world, the oil age has passed, and the side effects of bio-engineered plagues run rampant across the globe.</p>
<p>4. Stranger in a Strange Land</p> <p>By Robert Heinlein</p>		<p><i>Stranger in a Strange Land</i>, winner of the 1962 Hugo Award, is the story of Valentine Michael Smith, born during, and the only survivor of, the first manned mission to Mars. Michael is raised by Martians, and he arrives on Earth as a true innocent: he has never seen a woman and has no knowledge of Earth's cultures or religions. But he brings turmoil with him, as he is the legal heir to an enormous financial empire, not to mention <i>de facto</i> owner of the planet Mars. Michael explores human morality and the meanings of love. He founds his own church, preaching free love and disseminating the psychic talents taught him by the Martians.</p>
<p>5. The Time Machine</p> <p>By H.G. Wells</p>		<p>English novelist, historian and science writer Herbert George Wells (1866–1946) abandoned teaching and launched his literary career with a series of highly successful science-fiction novels. <i>The Time Machine</i>, published in 1895, the novel follows the adventures of a Time Traveller who journeys into the future to find that humanity has evolved into two races: the peaceful Eloi — vegetarians who tire easily — and the carnivorous, predatory Morlocks. Sure to delight lovers of the fantastic and bizarre, <i>The Time Machine</i> belongs on the shelf of every science-fiction fan</p>
<p>6. The Hitchhiker's Guide to the Galaxy</p> <p>By Douglas Adams</p>		<p>"IRRESISTIBLE!"—Says the Boston Globe. Why? Seconds before the Earth is demolished to make way for a galactic freeway, Arthur Dent is plucked off the planet by his friend Ford Prefect, a researcher for the Hitchhiker's Guide to the Galaxy who has been posing as an out-of-work actor. Together this pair begin a journey aided by a galaxy-full of fellow travelers: Zaphod Beeblebrox--the two-headed, three-armed ex-hippie and totally out-to-lunch president of the galaxy; Trillian, Zaphod's girlfriend (formally Tricia McMillan), whom Arthur tried to pick up at a cocktail party once upon a time zone; Marvin, a paranoid, brilliant, and chronically depressed robot; Veet Voojagig, a former graduate student who is obsessed with the disappearance of all the ballpoint pens he bought over the years.</p>

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<p>7. The Martian</p> <p>By Andy Weir</p>		<p>Six days ago, astronaut Mark Watney became one of the first people to walk on Mars. Now, he's sure he'll be the first person to die there. After a dust storm nearly kills him and forces his crew to evacuate while thinking him dead, Mark finds himself stranded and completely alone with no way to even signal Earth that he's alive—and even if he could get word out, his supplies would be gone long before a rescue could arrive. But Mark isn't ready to give up yet. Drawing on his ingenuity, his engineering skills—and a relentless, dogged refusal to quit—he steadfastly confronts one seemingly insurmountable obstacle after the next.</p>
<p>8. The Sword of Shannara</p> <p>By Terry Brooks</p>		<p>The fist in a series of books blending fantasy and science fiction decades after the collapse of humanity begins with Shea Ohmsford, living in peaceful Shady Vale, who knew little of the troubles that plagued the rest of the world. Then the giant, forbidding Allanon revealed that the supposedly dead Warlock Lord was plotting to destroy the world. The sole weapon against this power of darkness was the Sword of Shannara, which could only be used by a true heir—and Shea is the last of the bloodline upon whom all hope rests. And thus begins the enthralling Shannara epic, a spellbinding tale of adventure, magic and myth in three volumes, <i>The Shannara Chronicles</i>.</p>
<p>9. The War of the Worlds</p> <p>By H.G. Wells</p>		<p>The War of the Worlds (1898), by H. G. Wells, is an early science fiction novel which describes an invasion of England by aliens from Mars. It is one of the earliest and best-known depictions of an alien invasion of Earth, and has influenced many others, as well as spawning several films, radio dramas, comic book adaptations, and a television series based on the story. The 1938 radio broadcast caused public outcry against the episode, as many listeners believed that an actual Martian invasion was in progress, a notable example of mass hysteria</p>
<p>10. The Death of Grass</p> <p>By John Christopher</p>		<p>The Chung-Li virus has devastated Asia, wiping out the rice crop and leaving riots and mass starvation in its wake. Wheat, barley, oats, rye - no grass crop is safe, and global famine threatens. In Britain, getting wind of what's in store, John Custance and his family decide they must abandon their London home to head for the sanctuary of his brother's farm. And so they begin the long trek across a country fast descending into barbarism, where the law of the gun prevails, and the civilized values they once took for granted become the price they must pay if they are to survive.</p>
<p>11. One Second After</p> <p>By William R. Forstchen</p>		<p>New York Times best-selling author William R. Forstchen now brings us a story which can be all too terrifyingly real...a story in which one man struggles to save his family and his small North Carolina town after America loses a war, in one second, a war that will send America back to the Dark Ages...A war based upon a weapon, an Electro Magnetic Pulse (EMP). A weapon that may already be in the hands of our enemies.</p> <p>Months before publication, <i>One Second After</i> has already been cited on the floor of Congress as a book all Americans should read, a book already being discussed in the corridors of the Pentagon as a truly realistic look at a weapon and its awesome power to destroy the entire United States, literally within one second. It is a weapon that the <i>Wall Street Journal</i> warns could shatter America, a dire warning of what might be our future...and our end</p>

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<p>12. The Maze Runner</p> <p>By James Dashner</p>		<p>Book one in the blockbuster Maze Runner series that spawned a movie franchise and ushered in a worldwide phenomenon! And don't miss <i>The Fever Code</i>, the highly-anticipated series conclusion that finally reveals the story of how the maze was built!</p> <p>When Thomas wakes up in the lift, the only thing he can remember is his name. He's surrounded by strangers—boys whose memories are also gone. Outside the towering stone walls that surround them is a limitless, ever-changing maze. It's the only way out—and no one's ever made it through alive. Then a girl arrives. The first girl ever. And the message she delivers is terrifying: Remember. Survive. Run.</p> <p><i>The Maze Runner</i> and <i>Maze Runner: The Scorch Trials</i> are now movies featuring the star of MTV's <i>Teen Wolf</i>, Dylan O'Brien; Kaya Scodelario; Aml Ameen; Will Poulter; and Thomas Brodie-Sangster. The third movie, <i>Maze Runner: The Death Cure</i>, will hit screens in 2018.</p>
<p>13 The Girl with All the Gifts</p> <p>By M.R. Carey</p>		<p>The USA Today bestseller</p> <p>Melanie is a very special girl. Dr. Caldwell calls her "our little genius." Every morning, Melanie waits in her cell to be collected for class. When they come for her, Sergeant keeps his gun pointing at her while two of his people strap her into the wheelchair. She thinks they don't like her. She jokes that she won't bite, but they don't laugh. <i>The Girl With All the Gifts</i> is a groundbreaking thriller, emotionally charged and gripping from beginning to end</p>
<p>14. The 100</p> <p>By Kass Morgan</p>		<p><i>No one has set foot on Earth in centuries -- until now.</i> Ever since a devastating nuclear war, humanity has lived on spaceships far above Earth's radioactive surface. Now, one hundred juvenile delinquents -- considered expendable by society -- are being sent on a dangerous mission: to recolonize the planet. It could be their second chance at life...or it could be a suicide mission.</p> <p>CLARKE was arrested for treason, though she's haunted by the memory of what she really did. WELLS, the chancellor's son, came to Earth for the girl he loves -- but will she ever forgive him? Reckless BELLAMY fought his way onto the transport pod to protect his sister, the other half of the only pair of siblings in the universe. And GLASS managed to escape back onto the ship, only to find that life there is just as dangerous as she feared it would be on Earth. They were never meant to be heroes, but they may be mankind's last hope</p>
<p>15. BIOME</p> <p>By Ryan Galloway</p>		<p>Inside the gleaming domes of Mars Colony One, seventeen-year-old Lizzy Engram and her fellow cadets work to make the Red Planet habitable. And every Sunday night, the doctors erase their memories. One morning, Lizzy wakes with all of the missing memories inside her head. And not just her own, but the memories of every cadet on the planet—from the boy who falls in love with her every week, to the girl who wants to ruin her life, to the cadets who have simply disappeared. Lizzy has six days to figure out what the doctors are hiding—and why—or she'll lose more than her memories.</p> <p>Fans of <i>Doctor Who</i>, <i>The 100</i>, <i>Divergent</i>, <i>Cinder</i>, and <i>The Maze Runner</i> will find themselves carried away in this nonstop psychological thriller</p>
<p>17. Slaughterhouse Five: A Novel</p> <p>By Kurt Vonnegut</p>		<p><i>Slaughterhouse-Five</i>, an American classic, is one of the world's great antiwar books. Centering on the infamous firebombing of Dresden, Billy Pilgrim's odyssey through time reflects the mythic journey of our own fractured lives as we search for meaning in what we fear most</p>

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