



The Best Movies for the Science Classroom: A Breakdown by Topic

How to use this document

This is a working document - I'll be updating it as I review more science movies. Bookmark it and check back every once in a while if you're looking for new options!

I am the only person who will be editing this document. I'd LOVE for you to share any suggestions that you might have by emailing me at bigredscience@gmail.com. I'll review and add them to the list!

If you're looking for a specific topic, click "Edit" and then "Find" in your browser (not in the document). You can then type in the term you're looking for and see what pops up!

Note: If I've put "Yes" in the column that says it can be found on YouTube, just search for the title and network on YouTube and see what comes up. Since movies sometimes get pulled off of YouTube, I don't want to post broken links.

Don't just pick a movie, click "Play" and be done with it!

Check out my free
[Teacher's Ultimate Guide to Making the Most out of Science Movies in the Classroom](#)



Biology

Movie	Major topic(s)	Summary of content	Run Time:	Can I find this on YouTube?	Is there a movie guide?
<i>Cracking Your Genetic Code</i> (PBS NOVA)	Genetics	A great documentary that gives an overview of DNA and the power of genotyping and genomics in terms of personalized medicine. It follows multiple people and shows how their lives have been affected by genetic disease and potential treatments.	54 mins	Yes	Yes
<i>Gattaca</i>	Genetics	A scifi movie about a world where most people have been genetically designed to be "perfect". It's a great introduction to some of the controversial topics regarding genetic manipulation including designer babies.	1 hr 52 mins	Yes (both free and to rent)	No
<i>What Darwin Never Knew</i> (PBS NOVA)	Evolution Genetics	Perfect way to connect genetics with evolution. I use this to begin the evolution unit after having taught genetics. It provides history of Charles Darwin and the Galapagos and also explores several contemporary scientists and their work including Neil Shubin and Tiktaalik. It becomes an anchor throughout our unit that can be referred back to regularly.	1 hr 52 mins	Yes	Yes
<i>Becoming Human</i> (PBS NOVA)	Evolution	A three-part series that explores human evolution beautifully by touching on multiple Homo genuses.	Part 1: 53 mins Part 2: 51 mins Part 3: 51 mins	Yes	Yes
<i>Stress: Portrait of a Killer</i> (National Geographic)	Endocrine System/Homeostasis	This documentary talks about the stress response and the hormones involved. It explores fascinating research in a baboon troop that becomes more relaxed after its aggressive, stress-inducing high-ranking males end up dying and are replaced by more mellow leaders. It also looks at relationships between dopamine and stress, fat and stress, aging and stress, and how stress can impact children in the womb.	56 mins	Yes	Yes
<i>Dancing with the Birds</i> (Netflix)	Sexual Selection/Evolution/Biodiversity	A fun and vibrant documentary that shows various mating routines of birds of paradise in Papua New Guinea. It's a bit long to show in class since it covers one small topic, but it's great to pull a clip from or play during a break.	52 mins	No	No

<i>National Geographic: The Brain</i> <i>(National Geographic)</i>	Nervous System	<p>Can be used as part of a unit addressing the nervous system. It covers the anatomy of the brain and discusses what happens to the brain in different situations such as response to fear and stress, memory, high-level athletics, savants, and brains of psychopaths.</p> <p><i>Note: There is a section on the brain during orgasm and how it may be related to evolution, so be sure to preview. It can be skipped without affecting the rest of the learning.</i></p>	1 hr 34 mins	Yes	Coming soon
<i>Homeostasis: Marathon (19 mins and poor video quality, but good content!)</i>	Homeostasis	The video itself is not of great quality, but the content is <i>excellent</i> to address homeostasis. It follows a runner while completing a marathon and checks in on things like heart rate, breathing rate, body temperature, and blood glucose level. It discusses the kidneys, adrenal glands and adrenaline, sweating, glucose and glycogen, and blood flow. Can be found on YouTube.	19 mins	Yes	Coming soon
<i>The Kingdom: How Fungi Made Our World</i> <i>(CBC, The Nature of Things)</i>	Fungi	An excellent look into the Kingdom. Talks about uses, structures, and how fungi brought life back to Earth after the last mass extinction. Can be found on YouTube.	44 mins	Yes	Not yet
<i>Beyond the Elements: Life</i> <i>(PBS NOVA)</i>	Biochemistry Organic Chemistry	This is a very interesting journey through areas where chemistry and biology overlap. New research regarding photosynthesis is explored as well as the atmosphere and ozone, the four macromolecules, polarity (and how soap works), and research on directed evolution. Definitely useful for Chemistry class as well. Very cool!	53 mins	Yes	Yes

<i>Life in Color</i> (David Attenborough, Netflix/BBC)	Evolution Biodiversity	This documentary is the perfect way to show your students how adaptations involving color have benefitted different types of animals. It explores fascinating examples that include peacocks, flamingos, fiddler crabs, mandrill monkeys, poisonous dart frogs, damsel fish, hummingbirds, birds of paradise and MORE! This doc takes learning to the next level with the use of ultraviolet cameras so that we can see what we don't see with the naked eye.			Yes
<i>Bat Superpowers</i>	Evolution Biodiversity Viruses	This is a great documentary to show in class if you're looking at evolution, biodiversity, or viruses. It outlines some of the super cool traits that bats have that are different from other similar-sized creatures, and it also addresses coronavirus from an interesting perspective (i.e. why bats can harbour this virus but not be affected by it). Highly recommend!	54 mins	Yes	Yes

Biology suggestions I still need to review:

<i>Lorenzo's Oil</i>	<i>TBD</i>	<i>Coming Soon</i>	TBD	TBD	<i>TBD</i>
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Chemistry

<i>Movie</i>	<i>Major topic(s)</i>	<i>Summary of content</i>	<i>Run Time:</i>	<i>Can I find this on YouTube?</i>	<i>Is there a movie guide?</i>
<i>Our Atmosphere</i> (National Geographic)	Gases/Gas laws	A fun way to introduce a unit on Gases and Atmospheric chemistry. It covers how the Earth's atmosphere was formed and evolved to suit life, its layers and how pressure and density change, and atmosphere on other planets. It leads nicely into gas laws and provides anchoring for gas variables.	50 mins	Yes	Yes

<i>Hunting the Elements</i> (PBS NOVA)	Introduction	I love this as either an introduction to chemistry (particularly for middle school) or as a treat for kids in between units or on a day with a sub or before a break. It covers different sections of the periodic table in interesting ways such as shopping for the elements that make up humans (CHNOPS), how different alloys affect the sounds of bells, and how some rare earth metals are shark repellents! Also...explosions. Kids love the explosions.	1 hr 53 mins	Yes	No
<i>Beyond the Elements: Reactions</i> (PBS NOVA)	Reactions	This documentary looks at chemical reactions involved in fire, making concrete, fertilizer (Haber process), explosives, hot peppers, and venom and its uses in medicine.	53 mins	Yes	Yes
<i>Beyond the Elements: Indestructible</i> (PBS NOVA)	Materials Chemistry Solids Polymers	A fascinating look at materials chemistry. It looks at glass (i.e. talks about crystalline vs. amorphous solids), rubber, oil, nylon and other plastics (and polymers in general).	53 mins	Yes	Yes
<i>Beyond the Elements: Life</i> (PBS NOVA)	Biochemistry Organic Chemistry	This is a very interesting journey through areas where chemistry and biology overlap. New research regarding photosynthesis is explored as well as the atmosphere and ozone, the four macromolecules, polarity (and how soap works), and research on directed evolution. Definitely useful for Biology class as well. Very cool!	53 mins	Yes	Yes
<i>Treasures of the Earth: Metals</i> (PBS NOVA)	Origin of the Elements Metals/solids Materials chemistry	An episode of a 3-part series that explores gold, copper, iron, steel, aluminum, and graphene. It starts with how elements are created and touches on the importance of various metals, their atomic structure, as well as interesting properties (ex: use of gold in space, copper and its antimicrobial properties, smelting iron and the industrial revolution, creation of steel and its influence on our society, and new research such as the potential to recycle trash and turn it into steel, and the creation of a metal foam). I would show this when discussing solids or as a deep diver into metals. It could also be used in senior chemistry and challenge them to make connections to different units such as thermochemistry, electrochemistry, reactions, etc.	53 mins	Yes	Not yet
<i>Chemistry suggestions I still need to review:</i>					

<i>Radium Girls</i>	<i>TBD</i>	<i>Coming Soon</i>	1 hr 43 mins	<i>TBD</i>	<i>TBD</i>
<i>The Mystery of Matter: Out of Thin Air</i>	<i>TBD</i>	<i>Coming Soon</i>	57 mins	Yes	<i>TBD</i>
<i>The Mystery of Matter: Unruly Elements</i>	<i>TBD</i>	<i>Coming Soon</i>	57 mins	Yes	<i>TBD</i>
<i>The Mystery of Matter: Into the Atom</i>	<i>TBD</i>	<i>Coming Soon</i>	57 mins	Yes	<i>TBD</i>
<i>A Volatile History</i>	<i>TBD</i>	<i>Coming Soon</i>	<i>TBD</i>	<i>TBD</i>	<i>TBD</i>

Physics

<i>Movie</i>	<i>Major topic(s)</i>	<i>Summary of content</i>	<i>Run Time:</i>	<i>Can I find this on YouTube?</i>	<i>Is there a movie guide?</i>
<i>Looking for Life on Mars: NASA's Perseverance Rover Mission</i> (PBS NOVA)	Engineering Space Mars	This documentary is the perfect way to show your students what scientists have planned for the Perseverance Rover Mission. It addresses why we are exploring Mars, how what we've learned previously has shaped this mission, and the incredible research and technology that has gone into the journey of Perseverance. This could be connected to any science class!	54 mins	Yes	Yes
<i>Hunting the Edge of Space</i> (PBS NOVA)	Optics	This documentary talks about the telescope and how it has revolutionized humanity. It includes dramatizations of the development of the telescope as well as current research using large telescope in space. I've used this in a unit on Optics.	1 hr 27 mins	Yes	Coming soon
<i>Mercury 13: Women of the Sky</i> (Netflix)	Space flight Women in space	A documentary looking at women pilots who were pursued for astronaut training in the 1950s/60s before NASA refused to allow their participation.	1 hr 19 mins	No	No
<i>Hidden Figures</i>	Space travel Women in space	"Three brilliant African-American women at NASA -- Katherine Johnson, Dorothy Vaughan and Mary Jackson -- serve as the brains behind one of the greatest operations in history: the	2 hrs 7 mins	Yes (to rent)	No

		launch of astronaut John Glenn into orbit, a stunning achievement that restored the nation's confidence, turned around the Space Race and galvanized the world." <i>(from Rotten Tomatoes)</i>			
<i>Explore the science of the Northern Lights</i> <i>(CBC, The Nature of Things)</i>	Optics/Light	An interesting episode that follows "aurora chasers", scientists to look at why they form, the composition of the atmosphere and the spectrum of the aurora, citizen science opportunities, experiments to determine the connection of X-rays with the pulsation of lights, and more. There is also a nice segment on Indigenous people and their beliefs about the lights.	44 mins	Yes	Not yet
<i>Creatures of Light</i> <i>(PBS NOVA)</i>	Light Bioluminescence Biofluorescence	This episode takes a look at creatures that use light to scare predators, attract mates, or lure prey. They discuss the chemistry of these reactions and the light spectrum. They also talk about GFP and its usefulness and using light in research like cancer, detecting pollution, illuminating cities and mapping the inner workings of the brain. It's a cool movie to connect Physics, Chemistry and Biology. I would challenge students to pick out topics that fit into each of those categories.	52 mins	Yes	Not yet
<i>Physics suggestions that I still need to review:</i>					
<i>The Planets Series</i> <i>(PBS NOVA)</i>	Inner Worlds Mars Jupiter Saturn Ice Worlds	<i>Coming Soon</i>	Each is ~54 mins	Yes	<i>TBD</i>
<i>Apollo 11</i> <i>(Netflix)</i>	<i>TBD</i>	<i>Coming Soon</i>	1 hr 33 mins	No	<i>TBD</i>
<i>The Martian</i>	<i>TBD</i>	<i>Coming Soon</i>	<i>TBD</i>	<i>TBD</i>	<i>TBD</i>
<i>Sonic Magic: The Wonder and Science of Sound</i> <i>(CBC, The Nature of Things)</i>	<i>TBD</i>	<i>Coming Soon</i>	44 mins	Yes	<i>TBD</i>

<i>Wonders of the universe</i> (BBC)	Time Elements Gravity Light	Time, inevitable heat death of the universe Stellar evolution, origin of the elements Gravity and its importance (formation of solar systems, tidal forces, gravity on Earth compared to elsewhere in the Universe, black holes Light <i>*info from online summary</i>	~53 mins each	Yes	TBD
<i>100 Greatest Discoveries</i> (Bill Nye)	TBD	Coming Soon	TBD	TBD	TBD

Environmental Science

Movie	Major topic(s)	Summary of content	Run Time:	Can I find this on YouTube?	Is there a movie guide?
<i>The Biggest Little Farm</i> (Netflix)	Biodiversity Ecology	A really interesting documentary that follows a couple who purchase a farm and work over 7 years to transform its arid landscape into a working farm and biodiverse habitat.	1 hr 31 mins	No	No
<i>Lethal Seas</i> (PBS NOVA)	Ocean chemistry Climate change	This documentary is a nice way to connect environmental science/biology to chemistry. It discusses how the ocean absorbs ¼ of Earth's carbon dioxide and how it raises the ocean's acidity and impacts skeletons and shells of marine creatures. They also explore research of a naturally acidic coral reef in Papua New Guinea that gives us a sense of what the ocean could become.	54 mins	Yes	Coming soon
<i>Mother - Caring for 7 Billion</i>	Population growth Population dynamics	I used this movie in a unit on Population Dynamics and the students found it quite compelling. It is a great jumping off point for discussion and debate. "Mother...breaks a 40-year taboo by bringing to light an issue that silently fuels our largest environmental, humanitarian and social crises - population growth. Since the 1960s the world population has nearly doubled, adding more than 3 billion people. At the same time, talking about population has become politically incorrect because of the sensitivity of the issues surrounding the topic- religion, economics, family planning and gender inequality. The film	1 hr	Yes (to rent)	No

		illustrates both the over consumption and the inequity side of the population issue by following Beth, a mother, a child-rights activist and the last sibling of a large American family of twelve, as she discovers the thorny complexities of the population dilemma and highlights a different path to solve it." (IMDB)			
<i>Secrets Beneath the Ice</i> (PBS NOVA)	Climate change Antarctic research	There are probably more recent documentaries now (this is from 2010), but I've previously used this in units about climate change. Students enjoyed this movie and it is great way to see research in action to learn about the Earth's history, as they sample ice cores in Antarctica. This could be an opportunity to watch something from a decade ago and then have students research how knowledge has progressed since then.	57 mins	Yes	Coming soon
<i>Environmental Science suggestions that I still have to review:</i>					
<i>There's Something in the Water</i> (Netflix)	TBD	Coming Soon	1 hr 11 mins	No	No
<i>Our Planet</i> (8 episodes) (Netflix)	One Planet Frozen Worlds Jungles Coastal Seas From Deserts to Grasslands The High Seas Fresh Water Forests	Coming Soon	50 mins each	No	No
<i>A Life on Our Planet</i> (Netflix)	TBD	Coming Soon	1 hr 23 mins	No	No
<i>The World's Dirtiest River</i>	TBD	Coming Soon	TBD	TBD	No
Math					
Movie	Major topic(s)	Summary of content	Run Time:	Can I find this on YouTube?	Is there a movie guide?

<i>The Great Math Mystery</i> (PBS NOVA)	Patterns Pi Math and connections to: music, computer programming, physics, human brain, space, electromagnetism	This can be used in both MS and HS math, as there are different aspects that different ages tend to engage with. Younger students love seeing the patterns in nature that are associated with pi and the Fibonacci sequence, and I've found that many older students make connections between what they've learned in physics courses and the research done at CERN.	53 mins	Yes	Yes
<i>The Man Who Knew Infinity</i>	History of math	"A moving account of Srinivasa Ramanujan, the genius mathematician who rose out of poverty in India to solve problems believed to be unsolvable, and whose profound insights have altered math all the way up to the present day." (<i>Antonius B, Rotten Tomatoes</i>) I used this movie as a treat to my eighth graders before a school break in order for them to see a mathematician in action.	1 hr 48 mins	Yes (both free and to rent)	No
<i>Math suggestions that I still have to review:</i>					
<i>Nature's mathematics</i>	TBD	Coming Soon	2 parts, ~12 mins each	Yes	TBD
<i>Precision, the measure of all things</i>	TBD	Coming Soon	3 parts, ~59 mins each	Yes	TBD