

Text Set Topic: Vision

GLE range: 2–4 (with assistance) or 4–6 (more independently)

Created by Jeanne Almanzar, 2018

This text set is designed so that a video text introduces each topic, followed by an article. The articles can be read aloud as pairs or individually to accommodate learners' reading abilities.

For more information, see [About Text Sets](#) (on SABES website).

Resource Set & Sequence

| Resource | Rationale for including it in this order | Where to find it |
|---|---|--|
| A Journey Through the Human Eye: How We See (video) | This short video is geared for adults and contains basic information about how they eye works. The animation and images are clean and vibrant. It hits on some key vocabulary that is in the other texts. The video is short (2 minutes 38 seconds) so can be easily watched several times. The visuals that accompany the oral descriptions help to reinforce the information. | YouTube: https://www.youtube.com/watch?v=gvozcv8pS3c OR YouTube: search for "Bausch and Lomb", "A Journey Through the Human Eye" |
| Your Eyes | Although this site is labeled as being for children, it provides a clear explanation about how the eye works. There is also an audio link for students who would benefit from having the article read aloud, and options to change the text size of the article. | Kids Health: https://kidshealth.org/en/kids/eyes.html OR search for "kidshealth", "your eyes" |
| How the Eye Works Animation - Nearsighted | This video (3 minutes 20 seconds) gives a clear description of how the eye works, and what happens when someone is near or far sighted. The diagrams used along with the oral | YouTube: https://www.youtube.com/watch?v=YcedXDN6a88 |

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| and Farsighted: Human Anatomy (video) | explanations are clean and not overloaded with information. Since many people are diagnosed as being near or far sighted, students may connect on a personal level with this information. | OR YouTube: search for "Animed", "how the eye works" |
| Near and far sightedness | This text reinforces the information from the previous video and gives additional details about near and far sightedness. The text is not overly long, but packs in quite a bit of information. The texts also addresses how to correct these issues through a visit to an eye doctor, which links directly to the next two texts. | Vision Service Plan: https://www.vspdirect.com/vision-hub/what-is-nearsightedness-and-farsightedness OR search for "VSP direct", "What is nearsightednes" |
| How to protect your eyes from the sun (video) | This short (45 seconds) video gives some quick and easy to understand information about protecting your eyes from the sun. It serves as a good introduction to the next video and text that provide additional eye protection information. | YouTube: https://www.youtube.com/watch?v=IZBQUQ9PuWA OR YouTube: search for <i>WebMD</i> , "how to protect your eyes" |
| How to protect your eyes (video) | This video (2 minutes) is a segment from an evening news program. It covers protecting eyes from the sun and from other potential hazards. As a part of a news program, it may be a familiar format to many students. | ABC News: http://abc30.com/health/protecting-your-vision-2517153/ OR search for <i>ABC</i> , "protecting your vision" |
| 6 tips to protect your eyes | This text is from Web MD, which might be familiar to some students. The information reinforces the material from the previous videos. It gives additional tips about protection your vision and also connects how maintaining overall health works for vision health as well. Links offer students the opportunity to look at some of the ideas from the tips in more depth. | WebMD: https://www.webmd.com/eye-health/good-eyesight# OR search for <i>WebMD</i> , "keeping your eyes healthy" |

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| <p>Infinite Vision (video)</p> | <p>This video (play about up to the 15 min 48 second mark) introduces the work of Dr. Govindappa Venkataswamy, who founded the Aravind Eye Care System in India. It introduces students to what visioncare is like on a more global level. Students will see that some vision problems that are routinely treated in the United States (which they have learned about in previous texts) are not always easily treatable elsewhere. They will also be introduced to the legacy of care started by this doctor.</p> | <p>YouTube: https://www.youtube.com/watch?v= mXVmGr2TCw OR YouTube: search for "<i>Aravind eye care system channel</i>" and within that channel, search for "<i>Infinite Vision</i>". Choose the full version (35 min).</p> |
| <p>Warby Parker</p> | <p>This text, along with the previous video text, looks at vision care on a more global level. Warby Parker is an online site for purchasing eyeglasses. This text describes the Warby Parker "Buy a Pair, Give a Pair" donation program. This may help students to connect to programs like this that they may already know about, such as the Lions Club glasses donation program.</p> | <p>Warby Parker: https://www.warbyparker.com/buy-a-pair-give-a-pair OR search for "<i>Warby Parker buy give</i>"</p> |

Student Accountability: Learning Worth Remembering

ONE of the following activities should be completed and updated after reading *each* resource in the set: *Rolling Knowledge* OR *Rolling Vocabulary*.

The purpose of these activities is to capture knowledge that builds from one resource to the next, and to provide a holistic snapshot of central ideas of the content covered in the text set.

Both activities are shown here, with sample answers; as the teacher who will use this, choose one option for students to complete. (Your students may end up choosing different words and learnings.) Blank templates are included.

In an effective *Rolling Knowledge* journal:

- Knowledge collected demonstrates new knowledge about the text
 - Knowledge is not randomly selected – it makes sense and shows developing thoughts about the topic
 - Connections to previous readings are logical and not haphazard
 - Knowledge is paraphrased, not copied from the text
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In an effective *Rolling Vocabulary* journal:

- Words selected exemplify the gist and big ideas of the text
- Definitions adhere to the word's meaning in context (not just looking it up in the dictionary)
- Sentences are about the reading topic, not random

Rolling Knowledge Journal

1. Read each selection in the set, one at a time.
2. After you read each resource, stop and think what the big learning was. What did you learn that was new and important about the topic from this resource? Write, draw, or list what you learned from the text about the topic.
3. Write how this new resource added to what you learned from the last resource(s).

| Title | New/important learning about the topic | How does this resource add to what I learned already? |
|---|--|--|
| A Journey Through the Human Eye: How We See (video) | Our eyes do amazing things. They have many parts that do different jobs. | |
| Your Eyes | Our eyes have many parts, such as the pupil, iris and lens. The parts work together to collect information and send it to the brain. | This article gave some of the same information as the video, but had many more details. |
| How the Eye Works Animation - Nearsighted and Farsighted: Human Anatomy (video) | Sometimes the eye does not work perfectly. Nearsightedness and farsightedness are two common problems with sight. | This video showed the parts of the eye, but also showed what happens when the parts do not work perfectly. |

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| Nearsightedness and Farsightedness | Nearsightedness is when you see better up close. Farsightedness is when you see better far away. There are ways to correct these problems with glasses. | This article gave more information about nearsightedness and farsightedness, and also showed how these problems can be corrected. |
| How to protect your eyes from the sun (video) | UV rays from the sun can be harmful, but there are ways to protect eyes from the sun. | This video gave a list of ways to protect our eyes from the sun. |
| How to protect your eyes (video) | It is important to protect your eyes from the sun, from too much screen time, and from things that can cause infection. | This video talks about protecting eyes from the sun, but also from other things that could harm them. |
| 6 tips to protect your eyes | There are things you can do every day to protect your eyes, like eating well, not smoking, and visiting the eye doctor regularly. | This list adds details about protecting your eyes. |
| Infinite Vision (video) | Blindness is a worldwide problem. Hospitals in India are working to help people get the surgery they need but cannot afford. | There are many people around the world with vision problems. This video describes how people in India are getting help. |
| Warby Parker | Some companies like Warby Parker work to bring vision help to people who cannot afford it. | This reading gives an example of how one company is helping people get help with glasses and other vision needs. |

Rolling Vocabulary—Thinking Three

Directions:

1. For each resource, read and select three words that exemplify the central idea of that information source.
2. Next, use your three words to write about the most important idea of that information source, one sentence for each word.

| Resource Title | Vocabulary Words & Sentences |
|---|---|
| A Journey Through the Human Eye: How We See (video) | Words: lens, retina, optic nerve <ol style="list-style-type: none">1. The lens focuses the light on the retina.2. The retina gathers the information and sends it to the brain.3. The optic nerve takes the information from the eye and sends it to the brain. |
| Your Eyes | Words: voluntary, involuntary, reflexes <ol style="list-style-type: none">1. Sometimes blinking is voluntary. You can blink whenever you want.2. Sometimes blinking is involuntary. It happens automatically.3. Eyelids have strong reflexes to protect the eye from harm. |
| How the Eye Works Animation - Nearsighted and Farsighted: Human Anatomy (video) | Words: rods and cones, lacrimal duct, cataract <ol style="list-style-type: none">1. Rods and cones are special cells that help the eye process light.2. The lacrimal duct is also called the tear duct.3. A cataract can make it very hard to see. |

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| Near and far sightedness | <p>Words: nearsighted, farsighted, focal point</p> <ol style="list-style-type: none"> 1. Someone who is nearsighted can see things clearly up close, but has trouble seeing things far away. 2. Someone who is farsighted can see things clearly far away, but has trouble seeing things up close. 3. The place where light focuses in the eye is called the focal point. |
| How to protect your eyes from the sun video | <p>Words: UVA rays, UVB rays, UV protection</p> <ol style="list-style-type: none"> 1. UVA rays come from the sun and can be harmful to our eyes. 2. UVB rays come from the sun and can be harmful to our eyes. 3. Sunglasses can give our eyes UV protection. |
| How to protect your eyes video | <p>Words: misinformation, inflammation, UV damage</p> <ol style="list-style-type: none"> 1. Misinformation is information that is not correct. 2. Sleeping with makeup on can cause inflammation of the eyes. 3. Sunglasses and wide brimmed hats can help prevent UV damage to our eyes. |
| 6 tips to protect your eyes | <p>Words: nutrients, optometrist, dilation</p> <ol style="list-style-type: none"> 1. Nutrients like vitamin C can help to keep eyes healthy. 2. An optometrist can help you if you are near or far sighted. 3. Dilation makes the opening of your eye bigger so the eye doctor can check inside more easily. |

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| Infinite Vision (video) | <p>Words: eradicate, infinite, conviction</p> <ol style="list-style-type: none"> 1. The hospital's mission is to eradicate needless blindness. 2. The hospital sees many patients, even though they do not have infinite resources. 3. The doctor spoke with conviction about the mission of the hospital. |
| Warby Parker | <p>Words: alleviate, employ, administer</p> <ol style="list-style-type: none"> 1. The company hopes they can alleviate many vision problems. 2. The workers employ many methods of helping people. 3. Trained workers administer eye tests. |

1. Go back and review all of the words selected from the resources.
2. Now select the three words that taught you the most from ALL the word lists, *or* choose one word from each source. These are the words that most exemplify this topic and display what you thought was the most valuable learning.
3. Use the final list of words to summarize the learning from all of the sources.

| Final Words | Topic Summary |
|------------------------------------|---|
| cataract UV Damage eradicate | <p>People are working hard to eradicate needless blindness and other vision problems. Cataracts are one of the biggest causes of vision problems, and they can be fixed. Personally, taking care of your eyes can help to prevent UV Damage, which is one of the causes of cataracts.</p> |

Glossary for the Text Set: VISION

These words from each resource would likely block comprehension; they are not necessarily the most important words.

Resource Title 1: A Journey Through the Human Eye: How We See (video)

| Word | Student-Friendly Definition |
|-----------------|--|
| portal | opening |
| peer | look into |
| self-sustaining | able to keep going on its own |
| transparent | see through |
| cornea | the transparent (see through) layer on the front of the eye |
| Aqueous humor | clear fluid in the front space of the eye |
| lens | part of the eye that focuses light rays on the retina |
| Vitreous humor | jelly like substance in the eyeball |
| retina | back layer of the eye that collects information to send to the brain |
| Optic nerve | the nerve that sends information to send to the brain |
| Transfigured | changed into |
| Pupil | the opening in the eye that lets light in |
| Tear film | protection for the eyes (a wet layer = tears) |
| acuity | sharpness, usually to do with thinking or doing something well |

Resource Title 2: Your Eyes

| Word | Student-Friendly Definition |
|---------------|--|
| iris | The colored part of the eye |
| Voluntary | Something you can control or chose to do |
| involuntary | Something you cannot control; it happens automatically |
| reflexes | Something that happens without thinking about it |
| sclera | The white part of the eye |
| Blood vessels | Tiny tubes in the body that carry blood |

Resource Title 3:How the Eye Works Animation - Nearsighted and Farsighted: Human Anatomy (video)

| Word | Student-Friendly Definition |
|------------------|---|
| Anterior chamber | The space between the cornea and the iris |
| Ciliary muscle | The muscle that changes the shape of the lens |
| Vitreous body | The biggest part of the eye, near where that jelly (humor) sits |
| Rods and cones | Special cells that process light |
| Lacrimal glands | Where tears are made |
| Lacrimal duct | Tear duct |
| cataract | When the lens of the eye becomes cloudy, which makes it difficult to see well |
| nearsighted | When you can see things up close, but not so well far away |
| farsighted | When you can see things far away, but not so well up close |

Resource Title 4: What is Nearsightedness and What is Farsightedness?

| Word | Student-Friendly Definition |
|----------------|--|
| Sphere | Ball shape |
| structure | How something is arranged or put together |
| translates | Converts light waves into images |
| refracts | Bends |
| Optic nerve | The nerve that sends information from the eye to the brain |
| Occipital lobe | A part of the brain |
| Focal point | The place where light focuses in the eye |
| nearsighted | When you can see things up close, but not so well far away |
| concave | A type of lens used in glasses to correct nearsightedness |
| farsighted | When you can see things far away, but not so well up close |
| convex | A type of lens used in glasses to correct farsightedness |

Resource Title 5: How to protect your eyes from the sun (video)

| Word | Student-Friendly Definition |
|---------------|---|
| UV rays | Ultra Violet Rays from the sun |
| UVA rays | One of the types of ultra violet rays that can be harmful |
| UVB rays | Another type of ultra violet rays that can be harmful |
| UV protection | A way to block ultra violet rays |

Resource Title 6: How to protect your eyes (video)

| Word | Student-Friendly Definition |
|----------------|---|
| ophthalmology | The study of the eye |
| misinformation | False information |
| Blood vessels | Tiny tubes in the body that carry blood |
| inflammation | When a part of the body becomes, red, swollen, hot or painful |
| UV damage | Damage from the sun's rays |
| annual | Once per year |

Resource Title 7: 6 tips to protect your eyes

| Word | Student-Friendly Definition |
|----------------------|---|
| peepers | A slang word sometimes used to mean eyes |
| nutrients | Something that provides nourishment for growth |
| Macular degeneration | An eye disease |
| obesity | overweight |
| Type 2 diabetes | A problem with the body that causes sugar levels to rise higher than normal |
| UVA and UVB rays | Two types of ultraviolet rays from the sun |
| polycarbonate | A strong transparent material |
| glaucoma | An eye disease |

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| ophthamologist | A medical doctor who specializes in eye care |
| optometrist | A licensed professional who specializes in eye care |
| astigmatism | A vision condition that causes blurred vision |
| presbyopia | Vision changes that are caused by age |
| dilation | When drops are added to the eye to make the pupils larger. |

Resource Title 8: Infinite Vision (video)

| Word | Student-Friendly Definition |
|-----------------------|--|
| eradicate | Put an end to |
| infinite | endless |
| scythe | Tool for cutting crops |
| Mechanism of delivery | The way something is delivered to someone |
| franchise | A permit to conduct business |
| administrator | The person responsible for running a business |
| mentor | A trusted advisor |
| WHO | Initials for the World Health Organization |
| conviction | A firm belief or opinion |
| Refraction | A measurement of the focusing abilities of the eye |

Resource Title 9: Warby Parker

| Word | Student-Friendly Definition |
|------------------|--|
| alleviate | To make the problem better or less severe |
| Impaired vision | A vision problem |
| employ | To use |
| administer | To administer an eye exam is to be the one who gives it |
| entrepreneurship | Someone who organize, manages, and takes the risks of a business |
| longitudinal | A type of research study |
| correlation | A connection |
| intervention | Trying something to make a problem better |

VISION Rolling Knowledge Journal

1. Read each selection in the set, one at a time.
2. After you read each resource, stop and think what the big learning was. What did you learn that was new and important about the topic from this resource? Write, draw, or list what you learned from the text about the topic.
3. Write how this new resource added to what you learned from the last resource(s).

| Title | New/important learning about the topic | How does this resource add to what I learned already? |
|---|--|---|
| A Journey Through the Human Eye: How We See (video) | | |
| Your Eyes | | |
| How the Eye Works Animation - Nearsighted and Farsighted: Human Anatomy (video) | | |

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| Nearsightedness and Farsightedness | | |
| How to protect your eyes from the sun (video) | | |
| How to protect your eyes (video) | | |
| 6 tips to protect your eyes | | |
| Infinite Vision (video) | | |
| Warby Parker | | |

VISION Rolling Vocabulary—Thinking Three

Directions:

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2. Next, use your three words to write about the most important idea of that information source, one sentence for each word.

| Resource Title | Vocabulary Words & Sentences |
|---|---|
| A Journey Through the Human Eye: How We See (video) | Words: |
| Your Eyes | Words: |
| How the Eye Works Animation - Nearsighted and Farsighted: Human Anatomy (video) | Words: |
| Near and far sightedness | Words: |

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|---|--------|
| How to protect your eyes from the sun video | Words: |
| How to protect your eyes video | Words: |
| 6 tips to protect your eyes | Words: |
| Infinite Vision (video) | Words: |
| Warby Parker | Words: |

1. Go back and review all of the words selected from the resources.
2. Now select the three words that taught you the most from ALL the word lists, *or* choose one word from each source. These are the words that most exemplify this topic and display what you thought was the most valuable learning.
3. Use the final list of words to summarize the learning from all of the sources.

| Final Words | Topic Summary |
|-------------|---------------|
| | |