

# Eye Issues

## FOCUS QUESTIONS

1. What was the main point of the BtN story?
2. Glasses and contact lenses help correct a person's \_\_\_\_\_.
3. Using words or pictures, explain how the eye works.
4. Why do some people have blurred vision?
5. What are the two most common eye problems for kids?
6. If you are long sighted your have problems seeing things...
7. What is short-sightedness?
8. Short-sightedness is also called
  - a. Myopia
  - b. Tunnel vision
  - c. Glaucoma
9. Which animals did scientists use to test light levels?
10. What was surprising about this story?

## ACTIVITY

### KWLH Organiser

Discuss the BtN *Eye Issues* story as a class. What questions were raised in the discussion (what are the gaps in their knowledge)? Ask students to record what they know about the eye; how it works, the parts of the eye and eye conditions like short sightedness.

The following KWLH organiser provides students with a framework to explore their knowledge on this topic and consider what they would like to know and learn.

<i><b>What do I know?</b></i>	<i><b>What do I want to know?</b></i>	<i><b>What have I learnt?</b></i>	<i><b>How will I find out?</b></i>

## KEY LEARNING

Students will investigate and explain how the human eye works.

## AUSTRALIAN CURRICULUM

### Science – Year 5

Light from a source forms shadows and can be absorbed, reflected and refracted ([ACSSU080](#))

### Science – Years 5 & 6

Scientific understandings, discoveries and inventions are used to solve problems that directly affect peoples' lives ([ACSHE083](#)) ([ACSHE100](#))

Communicate ideas, explanations and processes in a variety of ways, including multi-modal texts ([ACSIS093](#)) ([ACSIS110](#))

### Science – Years 7 & 8

Communicate ideas, findings and solutions to problems using scientific language and representations using digital technologies as appropriate ([ACSIS133](#)) ([ACSIS148](#))

### English – Years 5 & 6

Plan, draft and publish imaginative, informative and persuasive print and multimodal texts, choosing text structures, language features, images and sound appropriate to purpose and audience Years ([ACELY1704](#)) ([ACELY1714](#))



## ACTIVITY

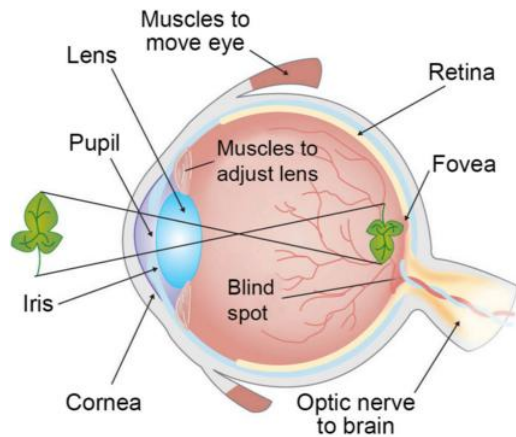
### How does the eye work?

Students will investigate the parts of the human eye and what each part does. Students will use the following as a guide during their investigation.

- Draw a diagram of the human eye.
- Label the features of the eye including the cornea, pupil, lens, iris, retina and optic nerve.
- Create a glossary on each of the features of the eye.
- Create a model of the eye.
- Explain to another student how our eyes work.

Students will develop their own question/s for inquiry, collecting and recording information from a wide variety of sources (internet, books, newspaper and magazines). Alternatively, students can respond to one or more of the following questions.

- How do our eyelids, eyelashes, eyebrows and tears protect our eyes?
- What is our blind spot?
- How can cats see in the dark?



Source: Ask A Biologist, Seeing Colour. [Link](#)



## ACTIVITY

### Information Report

Students will collect and record information about the eye using a wide variety of sources (internet, books, newspaper and magazines) and present in the form of an information report.

The following may help guide students' research:

- Description – How the eye works
- Diseases and disorders
- Interesting facts

### Structure and features of an information report

Information reports are factual texts written to inform and provide detailed facts about a topic. Discuss with students what they already know about the purpose, structure and features of an information report. Use the following as a guide to use with students.

- **Purpose** – An information report provides information to the reader by stating facts.
- **Structure** – see table below.
- **Language features** – write in the present tense, use technical or scientific words and write in the third person.

Students can then use the following plan to help write their report. There are some website links at the end of this activity to help students with their research.

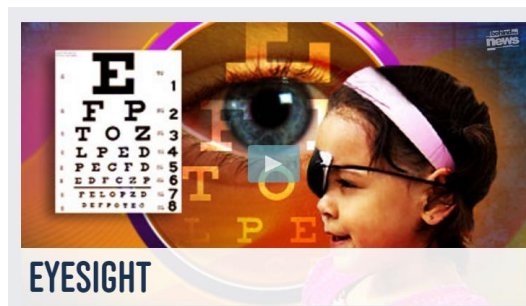
Information report – structure	
Title	States a topic
Introduction	The opening statement explains the subject of the report, and includes a definition or short description.
Body	Facts grouped into paragraphs. Starts with a topic sentence. Include subject specific language. Text features such as sub-headings, labelled diagrams, charts and captioned photographs may be included.
Conclusion	A summary of what the topic is about and end with an interesting fact.

## ACTIVITY

Behind the News has covered a number of stories relating to eyes. Student can watch one or more of the following stories and respond to the questions:

Watch BtN's [Eyesight](#) story and respond to the following questions:

1. How many kids in Australia under 12 have a vision problem?
2. What are the two most common eye problems in kids?
3. If you are long sighted you have problems seeing things...
4. What is short-sightedness?
5. What does Alexis wear when she plays sport?
6. Contact lenses work the same way as glasses. True or false?
7. What happens to the lenses in our eyes over time?
8. What does that mean for our eyesight?
9. Who pays for an eye test at the optometrist?
10. Name three facts learnt in the *Eyesight* story.



Watch BtN's [Colour Confusion](#) story and respond to the following questions:

1. What does it mean to be colour blind?
2. What do the rods and cones in our eyes do?
3. Which part of the eye doesn't work properly in someone who is colour blind?
4. Which colours does David have trouble seeing?
5. What proportion of boys are colour blind?
6. About how many girls are colour blind?
7. Colour blindness is not a genetic condition. True or false?
8. How does David's colour blindness impact on his life?
9. Illustrate an aspect of this story.
10. What was surprising about this story?



Watch BtN's [Bionic Eye](#) story and respond to the following questions:

1. How long has Jessye been blind?
2. How does she get around?
3. Describe echo location.
4. Scientists hope the bionic eye will help around \_\_\_\_% of people to see.
5. What is the cochlear bionic ear and how does it work?
6. Choose three adjectives to describe how Sophie felt when she could hear and speak for the first time.
7. What job does the retina perform?
8. Using words or pictures, describe how the bionic eye works.
9. Describe the images people would see with the bionic eye.
10. What do you now know about bionics since watching the BtN story?



## USEFUL WEBSITES

ABC Catalyst – Myopia

<http://www.abc.net.au/catalyst/stories/4450296.htm>

Behind the News – Eyesight

<http://www.abc.net.au/btn/story/s3314154.htm>

Behind the News – Colour Confusion

<http://www.abc.net.au/btn/story/s4191136.htm>

Behind the News – Bionic Eye

<http://www.abc.net.au/btn/story/s3779423.htm>

Child and Youth Health – How your eyes work

<http://www.cyh.com/HealthTopics/HealthTopicDetailsKids.aspx?p=335&np=152&id=1730>

Child and Youth Health – Vision: Short sightedness (myopia)

<http://www.cyh.com/HealthTopics/HealthTopicDetails.aspx?p=243&id=2378&np=292>

Eye Care Plus – Sight Matters: Children’s vision problems

[http://www.eyecareplus.com.au/downloads/Child\\_vision\\_A4.pdf](http://www.eyecareplus.com.au/downloads/Child_vision_A4.pdf)



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