

# LOOK OUT, → MARCUS!

growing  
up with  
low vision



Written by Lil Deverell  
Illustrated by Nicholas Houghton

# *Look for the boxes*



*Each box contains a question, a game or an activity which will help you to understand low vision.*

*You may like to make a list of new words and what they mean.*

Author: Lil Deverell

Illustrator: Nicholas Houghton – [www.nicholashoughton.com.au](http://www.nicholashoughton.com.au)

© 2007 Guide Dogs Victoria

**Guide Dogs Victoria** 

Published by Guide Dogs Victoria

Private Bag 13, Kew VIC 3101, AUSTRALIA

Website: [www.guidedogsvictoria.com.au](http://www.guidedogsvictoria.com.au)

Phone: +61 3 9854 4444

Individual activity pages in *Look Out, Marcus!* may be photocopied for use in the classroom.

Additional copies of this book may be obtained from Guide Dogs Victoria.

Layout and design by Monique Lisbon, Mono Unlimited – [www.monounlimited.com](http://www.monounlimited.com)

Printed and bound by Impact Printing, Brunswick, Victoria.

Deverell, Lil.

Look out, Marcus! : growing up with low vision.

For primary school children.

ISBN 978-0-85888-014-6 (online PDF format)

1. Low vision in children – Australia – Juvenile fiction.
2. Low vision in children – Services for – Australia – Juvenile fiction.
3. Children with visual disabilities – Orientation and mobility – Australia – Juvenile fiction.
- I. Houghton, Nicholas, 1985–.
- II. Guide Dogs Victoria.
- III. Title.

362.41083

# Contents

Meet Marcus .....	3
Optometrist.....	4
Ophthalmologist.....	6
Understanding Eye Reports.....	7
Orthoptist.....	10
Eccentric Viewing .....	11
Finding Friends.....	12
In the Classroom .....	13
Visiting Teacher .....	14
Statewide Vision Resource Centre.....	15
In the Playground .....	16
Orientation and Mobility .....	17
Making Maps.....	18
Crossing the Road .....	20
Camp.....	22
Mobility Aids .....	23
Alex.....	24
Sally.....	26
Occupational Therapy .....	27
What Can Kids With Low Vision Do?.....	30
Tips for Teachers and Parents.....	32
Children's Mobility Service .....	33

## Activities

<i>Eye say!</i> .....	3
<i>Inside an eye</i> .....	5
<i>Say it</i> .....	6
<i>Central vision loss</i> .....	7
<i>Google it</i> .....	7
<i>Read the newspaper</i> .....	8
<i>Measuring degrees</i> .....	9
<i>Surprise!</i> .....	11
<i>Maze</i> .....	12
<i>TV tricks</i> .....	12
<i>Write a list</i> .....	13
<i>Touch typing</i> .....	14
<i>Keystrokes</i> .....	15
<i>Play ball</i> .....	16
<i>Landmarks and clues</i> .....	17
<i>Tactile map</i> .....	18-19
<i>Road signs</i> .....	21
<i>Unscramble!</i> .....	23
<i>Scanning with tunnel vision</i> .....	24
<i>Spot the differences</i> .....	25
<i>Get dressed</i> .....	27
<i>Pour a drink</i> .....	27
<i>Make a sandwich</i> .....	27
<i>Low vision equipment</i> ....	28-29
<i>Wordfind</i> .....	31
<i>Answers</i> .....	33



## Dedication

To Gina Schmidt, for challenging us to walk the extra mile.

## Acknowledgements

*Look Out, Marcus!* is an initiative of the Children's Mobility Service at Guide Dogs Victoria, particularly Dean Johnson, Rachel Morgan, Danielle Bennett, Darlene McIntosh, Alicia Madden, Sharon Taylor, Janelle O'Loughlin, Erin Galloway and Lil Deverell.

We are grateful to Kay Nattrass for getting us started, Miranda Bozic for her steady guidance and the many staff at Guide Dogs Victoria who contributed to the project. Thanks also to the following people for sharing their time, expertise and feedback:

**Dr Kerry Fitzmaurice** at La Trobe University – [www.latrobe.edu.au](http://www.latrobe.edu.au)

**Dr Jill Keffe** at Centre for Eye Research Australia – [www.cera.org.au](http://www.cera.org.au)

**Dr James Elder** at Royal Children's Hospital – [www.rch.org.au](http://www.rch.org.au)

**Genevieve Napper** at Victorian College of Optometry – [www.vco.org.au](http://www.vco.org.au)

**Robyn Wallace** at Royal Victorian Eye and Ear Hospital – [www.rveeh.vic.gov.au](http://www.rveeh.vic.gov.au)

**Sandie Mackevicius & Pat Peck** at Vision Australia – [www.visionaustralia.org.au](http://www.visionaustralia.org.au)

**Deb Lewis, Marion Blazé & Jeni Blake** at Statewide Vision Resource Centre – [www.svrc.vic.edu.au](http://www.svrc.vic.edu.au)

**Greg Richards & students** at Clayton North Primary School – [www.claytonnorthps.vic.edu.au](http://www.claytonnorthps.vic.edu.au)

**Di & Nathan Letts**

**Lisa Buchner** at Smart Arts – [www.smartarts.net.au](http://www.smartarts.net.au)

*Look Out, Marcus!* was funded by a generous grant from the **Oliver-Affleck Fund**.

## Disclaimer

The people in this story are fictitious, but the Children's Mobility Service is real. Information supplied in this publication was prepared by the Children's Mobility Service at Guide Dogs Victoria. It is not meant to substitute direct contact with medical professionals. Discussing a child's situation with an appropriate health care practitioner offers you the best chance of getting all the information you need to ensure the best management possible.



# Meet Marcus

Marcus is 10 years old.

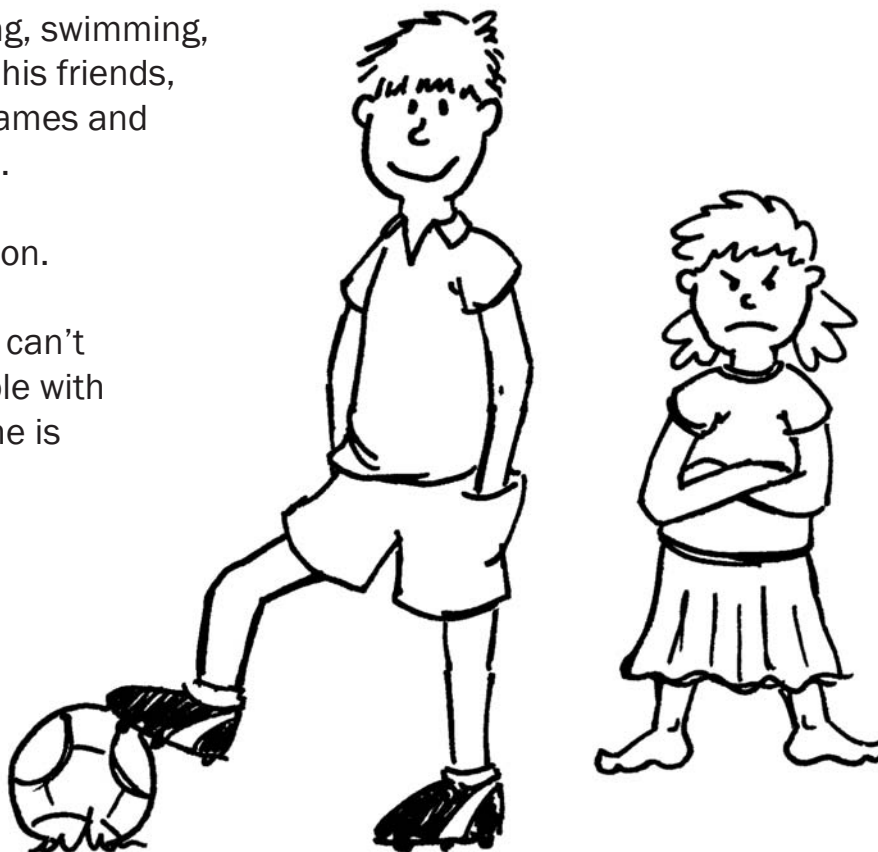
He lives with his mum, dad and little sister Cassie.

Their house is only a few blocks away from his school.

Marcus likes running, swimming, playing soccer with his friends, playing computer games and going to the movies.

Marcus has low vision.

This means that he can't see as well as people with normal vision, but he is definitely *not* blind.



## *Eye say!*

*Write down all the words you know to do with eyes and vision.*

*Do you know what they all mean?*



# Optometrist

A few years ago, Marcus was having trouble with reading. He kept getting headaches, so his mum took him to see the optometrist.

Optometrists are trained to examine your eyes and work out to see if they are healthy, measure your vision and work out whether glasses will improve it.

Optometrists do not treat serious eye diseases or perform eye surgery but they can find and monitor eye problems. Some optometrists also specialise in low vision and help people to make the most of their remaining vision.

The optometrist asked Marcus about his eyes, and about other people in his family. Marcus had to cover one eye at a time, then look at the eye chart on the other side of the room. Next he tried on a pair of googly glasses with changing lenses (phoropter), to see if wearing glasses would help him see better.

Marcus looked at a book of coloured dot pictures (Ishihara) to see if he could see any patterns in the dots.

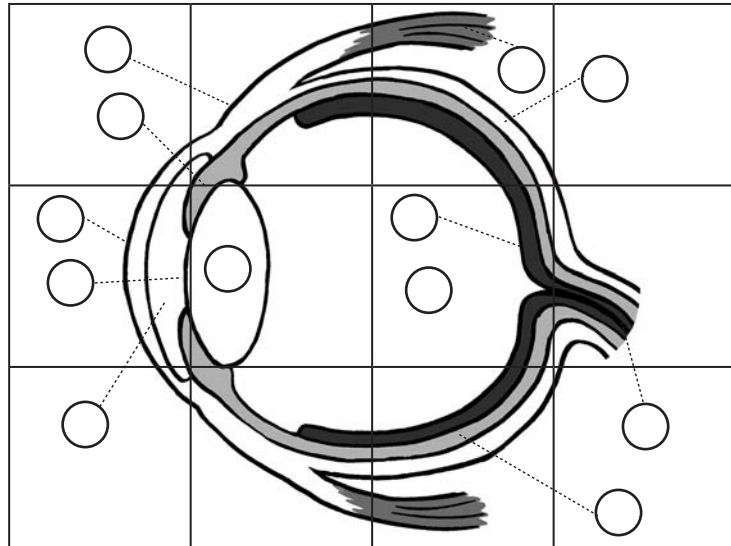
The optometrist said that glasses wouldn't make any difference to Marcus' vision. She told him that his vision problems were caused by an eye disease and she referred him to see an eye doctor.



# Inside an eye

Copy the eye diagram into the empty grid, then number each part of the diagram using the words in this list. You may need to do some research in the library or check the internet.

- ① Cornea
- ② Lens
- ③ Retina
- ④ Pupil
- ⑤ Choroid
- ⑥ Optic Nerve
- ⑦ Vitreous Humor
- ⑧ Aqueous Humor
- ⑨ Iris
- ⑩ Conjunctiva
- ⑪ Sclera
- ⑫ Extraocular Muscle




# Ophthalmologist

Ophthalmologists are medical doctors who specialise in eye problems. They can work out what is causing the problem (such as disease or accident). The ophthalmologist can treat some eye problems with medicine or surgery.

*Say it!*

*Practise saying ophthalmologist out loud. It sounds like this:*

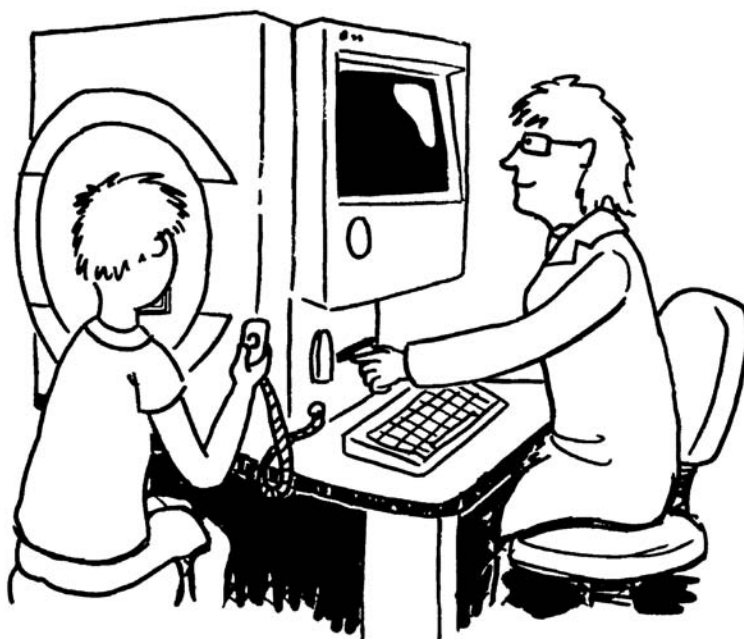
off-thal-mol-o-jist.



The ophthalmologist used a machine to check Marcus' peripheral (side or edge) vision. Marcus had to look into the machine and press a button every time he saw a light. It was a bit like watching the beginning of *Star Wars*. He also had a test (electroretinogram) to see how well his eyes reacted to light.

Later, the doctor put drops into Marcus' eyes. The drops made his pupils really big and his vision blurry. Then the doctor looked into the back of each eye (retina) to see whether it looked healthy.

The nerves in the retina get excited when light shines on them. They send messages to the brain, which then works out what we are seeing.





# Understanding Eye Reports

The ophthalmologist wrote a report about Marcus' vision. He said:

*Marcus is a 10 year old boy with Stargardt's Disease. His visual acuity with both eyes open is 6/36. His central vision is continuing to deteriorate while his peripheral vision remains intact.*

Eye reports can be very confusing. Let's have a look at what Marcus' eye report means.

## Eye Condition

Stargardt's Disease is an eye condition which can run in the family. Marcus' cousin Kim has it too. It affects the nerves in the central part of each retina (called the macula), causing central vision loss. That is the part of our vision we use for focusing on things, for reading and looking at people's faces.

Marcus doesn't need to have any medicine for his eyes. Surgery can't fix the problem. Glasses won't help either. Marcus' central vision will get worse over time.

### *Central vision loss*

*Make your hand into a fist and hold it right in front of your eyes, just above your nose. If you look straight at your fist, it is blurry and so is everything else you can see around it.*



*Make sure you keep looking at your fist while you try to read a book, or see the blackboard. Can you make any sense of what you see?*

### *Google it*

*It is a good idea to do an internet search on an eye condition to find out more information. Look up Stargardt's Disease and see what else you can discover. Compare a few websites to double-check the information. Don't believe everything you read on the net!*



## Visual Acuity

Visual acuity describes how clearly a person can see. Marcus can't see objects or words very well if he looks straight at them. He says it looks as though someone has rubbed out the middle.

Visual acuity is recorded as a fraction (the Snellen Fraction). It is measured with an eye chart showing different sized letters.

- The first number in the Snellen Fraction is always the distance between the eye and the chart. The second number shows which is the smallest line on the chart they can see.
- 6/6 is normal vision. This means you can see at 6 metres what a person with normal vision can see at 6 metres.
- 6/36 means that Marcus has to come as close as 6 metres to see what a person with normal vision can see at 36 metres. Marcus can read the big E at the top of the chart, but he can't read the next line.



## *Read the newspaper*

*Stick up a sheet of newspaper on the wall. First measure 6 metres back from the wall and see if you can read the headlines.*



- *What parts of the paper are easiest to see from 6 metres away? Why?*
- *Next try to read the fine print. Creep your toes forward until you are only just close enough to read, then stop still.*
- *Measure the distance between your toes and the wall. Compare your reading distance with a friend.*
- *Try the same exercise, first with one eye covered, then the other. Does it change how far you need to stand from the wall to see?*

## Visual Field

Visual field describes how widely a person can see. Your visual field is a combination of your central vision and your peripheral vision.

Central vision helps you to see colour and fine details (like ants and specks of dust). Peripheral vision helps you to: see in the dark; detect movement (like someone creeping up beside you); and notice big things (like the outline of a building). It is not very useful for fine detail.

Visual field is recorded in degrees of a circle.

- People with normal vision can see about  $180^\circ$  from one side to the other when they are looking straight ahead.
- Marcus' vision loss affects the central  $10^\circ$  of his visual field.

Although his central vision is getting worse, Marcus' peripheral vision still works very well. He can nearly always see the soccer ball coming towards him from the side!

### *Measuring degrees*

*Get out your protractor and draw a  $10^\circ$  angle on a piece of paper.*



- *Cut or fold along the lines.*
- *Hold the paper horizontal with the angle pointing towards your nose and see where the lines reach out to. Marcus has trouble seeing everything within that angle.*
- *Now draw a  $50^\circ$  angle. Marcus' friend Alex has tunnel vision. That means he is losing his peripheral vision. He can only see what is inside that  $50^\circ$  angle.*

## Legal Blindness

Legal blindness means that a person has less than 6/60 visual acuity or less than  $10^\circ$  visual field in their better eye. This does not necessarily mean that they are blind. Legally blind people over the age of 16 can get a government pension and travel on public transport for free. Marcus is not legally blind.

# Orthoptist



The ophthalmologist suggested that an orthoptist could help Marcus to get the best use of his remaining vision. An orthoptist understands eye problems but they do not do surgery or give medicine. They can measure vision very accurately and work out whether eye exercises, better lighting or special equipment will help.

The orthoptist talked to Marcus' family and helped them to understand his vision. She helped Marcus to choose the best magnifier to use when he needs to read small print. She also suggested a monocular would be good for seeing things in the distance.

A monocular is like half a pair of binoculars – a mini-telescope. Marcus can use his monocular to read signs when he is walking down the street, to look for the green man at the traffic lights or to see animals more clearly at the zoo.

The orthoptist came to Marcus' school to chat with his teacher. Together they found the best spot for Marcus to sit in the classroom. She recommended that Marcus have his own lamp over his desk to help him see better when he is working.



# Eccentric Viewing

## *Surprise!*

*Marcus loves scary monster movies.*

*On a blank piece of paper, draw the scariest monster you can imagine. Use lots of colour and detail.*



*Then see if you can surprise someone by creeping up behind them and waving your monster in their peripheral vision when they're not expecting it.*

The orthoptist taught Marcus about eccentric viewing. Marcus learned how to use the best parts of his peripheral vision to look at whatever he wants to see more clearly.

For instance, when Marcus looks directly at his friend Minh, he can't see Minh's face properly. But if Marcus looks down at Minh's shoulder or past his ear, he can usually see his face a bit better. Marcus might be able to make out whether Minh is smiling or frowning, looking at Marcus or looking away.

If Marcus wants to watch television, he looks at the side of the TV set, then he can use his peripheral vision to see the screen better.

When Marcus uses eccentric viewing, some people think he is not paying attention.



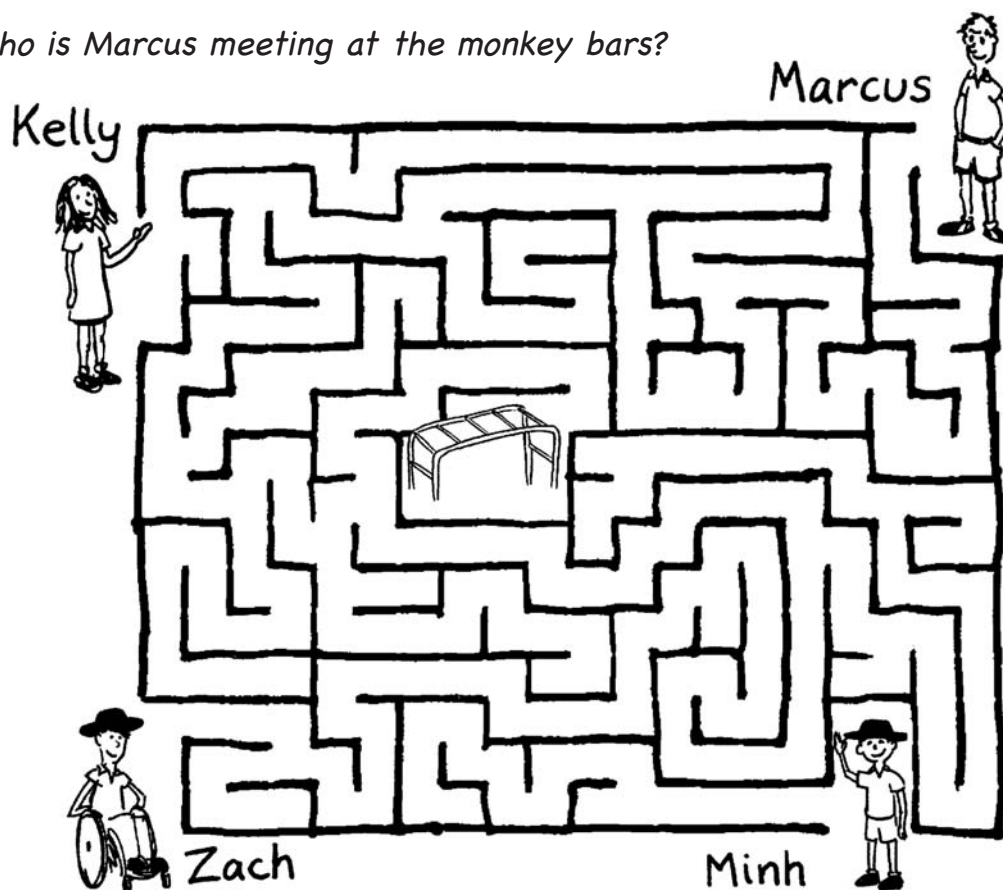


# Finding Friends

At Marcus' school, all the students wear a school uniform. That makes it hard for him to find his mates in the playground because they're all dressed the same. He needs to use other clues to find his friends or to recognise people from a distance. Sometimes he asks the teacher on yard duty to help.

## Maze

*Who is Marcus meeting at the monkey bars?*



## TV tricks

- Next time you are watching television, try turning down the colour and the contrast a bit to give you an idea of how Marcus sees. But be warned - it may drive your family crazy!
- You could stick crumpled cellophane over the screen to make it blurry. Can you follow the story? What kind of programs can you see best - animation or live actors?



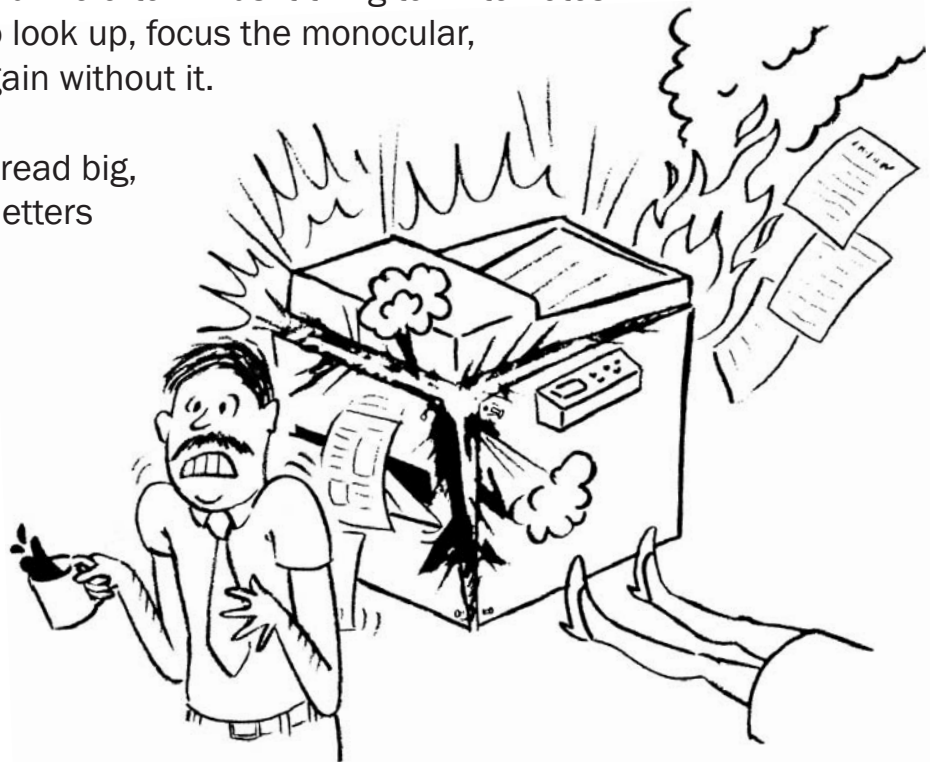
# In the Classroom

Marcus' eyes get tired very quickly when he is reading. He has to hold the paper really close to his face. In class, he finds it harder to read if the writing is all in capital letters, if the print is too small or too smudgy, or the paper is grey or coloured.

Marcus needs to use his monocular to read the whiteboard. It is very hard to read if the teacher uses an old, faded, colour texta. A new black texta is much easier to read. He often finds it tiring to write notes because he has to look up, focus the monocular, then look down again without it.

Marcus prefers to read big, black, lower case letters on a clean, white background. He uses his magnifier for small print but his teacher often blows things up for him on the photocopier.

Kaboom!



## *Write a list*

*Fix your eyes on a point on the far wall. Without looking down, write a list of everything you can see in the room. The things you see with your peripheral vision will mostly be blurry.*



- *Can you keep your writing in neat, tidy rows without looking at the page?*
- *Try bringing your paper up closer to your eyes without blocking your view of the far wall. Does it help you write more neatly?*

# Visiting Teacher

Marcus has a visiting teacher, Jackie, who comes to see him at school every week. Jackie understands low vision and she knows about a lot of technology which can help Marcus to keep up with his schoolwork.

Jackie is teaching Marcus to use his new laptop computer. As his vision gets worse, he needs to know which keys to hit without using the mouse or looking at the menus on the screen.

Some of Marcus' school books get emailed to him so that he can make the writing as big as he needs on the screen.

## *Touch typing*

*Can you find all the alphabet keys without looking at the keyboard?  
How about the punctuation keys?*



- *Cover up your hands and the keyboard with a cloth and type a few sentences. How long does it take? How many times do you need to use the backspace key?*
- *Try typing everything in **Arial 18 font**. That is the size Marcus needs to use for comfortable reading.*

Next term, Jackie will start teaching Marcus to use a computer program which reads the screen out loud to him. Then he will listen to his computer using headphones, while the other kids are reading silently.

At first Marcus felt a bit silly having lots of different equipment to the other kids in his class, but he is getting used to it. They always want to have a go on his laptop, but they are not allowed. Na-na!

Jackie told Marcus about the Support Skills Program at Vision Australia ([www.visionaustralia.org.au](http://www.visionaustralia.org.au)). He goes there twice a term to do things like art, music, daily living skills, communication skills and physical education.

# Statewide Vision Resource Centre

The Statewide Vision Resource Centre ([www.svrc.vic.edu.au](http://www.svrc.vic.edu.au)) is part of the Education Department. Last November, Marcus went there with his mum and Jackie to see a Technology Expo for kids with vision impairment. He found out about some great equipment which will help him to read the whiteboard through his laptop screen.



Marcus met some of the staff there who make Braille and audio books and run workshops for teachers and parents.

This year he went back to SVRC for a Skillpower Day. He was there with a group of vision-impaired kids from around Victoria. They all took their laptops and learned some useful keystrokes for taking shortcuts on the computer.

The kids talked with the teachers at SVRC about how to tell their teachers what they need in class. Marcus learned that he should put up his hand and ask questions at the time he needs help, instead of waiting until later and forgetting. He also needs to remind his teacher about making his worksheets **18 Arial** because she forgets sometimes.

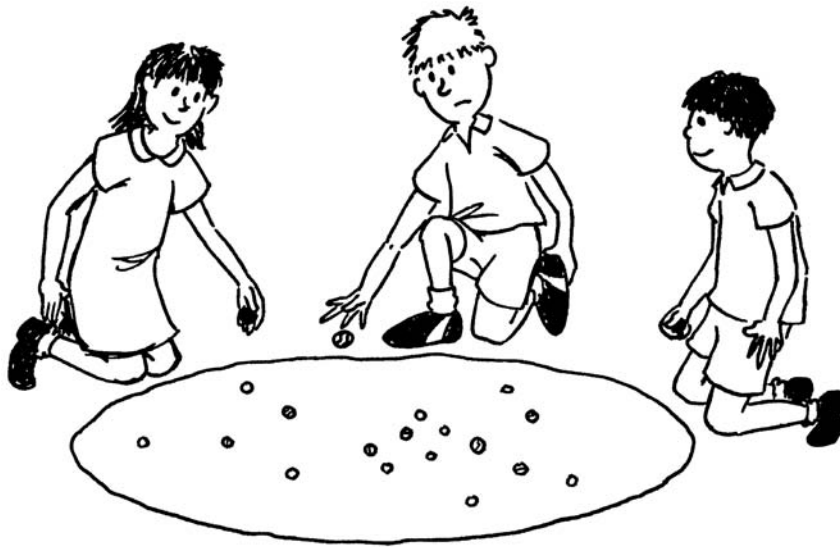
## Keystrokes

*How many keystrokes do you know on the computer?*

- 'Control' + 'P' is a quick way to print a document. Give it a try.
- Use the mouse to look up the menus and see how many other keystrokes you can learn.



# In the Playground



At school, Marcus doesn't have too much trouble getting around. He has been going to that school since prep and he knows where everything is.

At lunchtime, he loves to run around outside and he hardly ever has a crash. When he is playing soccer though, he has trouble seeing the ball if it is coming straight towards him. It is easier to see if it comes at him from the side and he can use his peripheral vision to kick a goal!

## *Play ball*

*Sit on the floor, fix your eyes on something in the distance and get a friend to roll a ball along the ground to you. Try to catch the ball without moving your eyes. Try it from the side and the front as well.*



- *Next, get your friend to call out to you so you know where they are. Try to roll the ball back without looking at your friend.*
- *When you get good at it, try throwing the ball to each other through the air.*
- *Try the same activity using a ball with a bell in it (cats like to play with bell balls – you might find one in a pet shop or supermarket). Do you find it any easier to use a ball with a noise?*



# Orientation and Mobility

Marcus wants to be able to walk to school safely by himself, instead of having his mum or dad take him. This term an orientation and mobility (O&M) instructor from Guide Dogs Victoria has been working with Marcus after school once a week. Her name is Amanda.

Together, Marcus and Amanda have been exploring the way (route) between home and school. Marcus is finding some useful landmarks and learning about road safety.

There are a lot of things near Marcus' house which he has never noticed before. Some of the fences are great to sit on for a rest, but others are too high or too spiky. At the intersections, some fences have square corners and some have round or cut off corners. In one street, there is usually a truck parked near the corner where he needs to cross over. It blocks his view of the road. How annoying!



## Landmarks and clues

*Do you know the difference?*



*Landmarks are things in the environment which are there all the time - things like fences, big trees and shops.*

*Clues are only there sometimes - such as smells, shadows and breezes - but they can still be handy when you are finding your way around.*

- *Take a walk around your school grounds and make a list of which things are landmarks and which are clues.*
- *Ask at the office for a map of the school and mark your landmarks on it. You could set up a treasure hunt using your landmark map.*

# Making Maps

Amanda and Marcus have been making an audio map of his area using a voice recorder. They have been thinking of words to describe the different parts of the route between school and home, and explaining the directions on the way.

Sometimes their directions end up sounding like a rap song! Marcus laughs at the sound of his own voice on the tape.

They have also been working on a large print map of the route. They plan to add textures to make it a tactile (touchable) map. Tactile maps are fun to make.



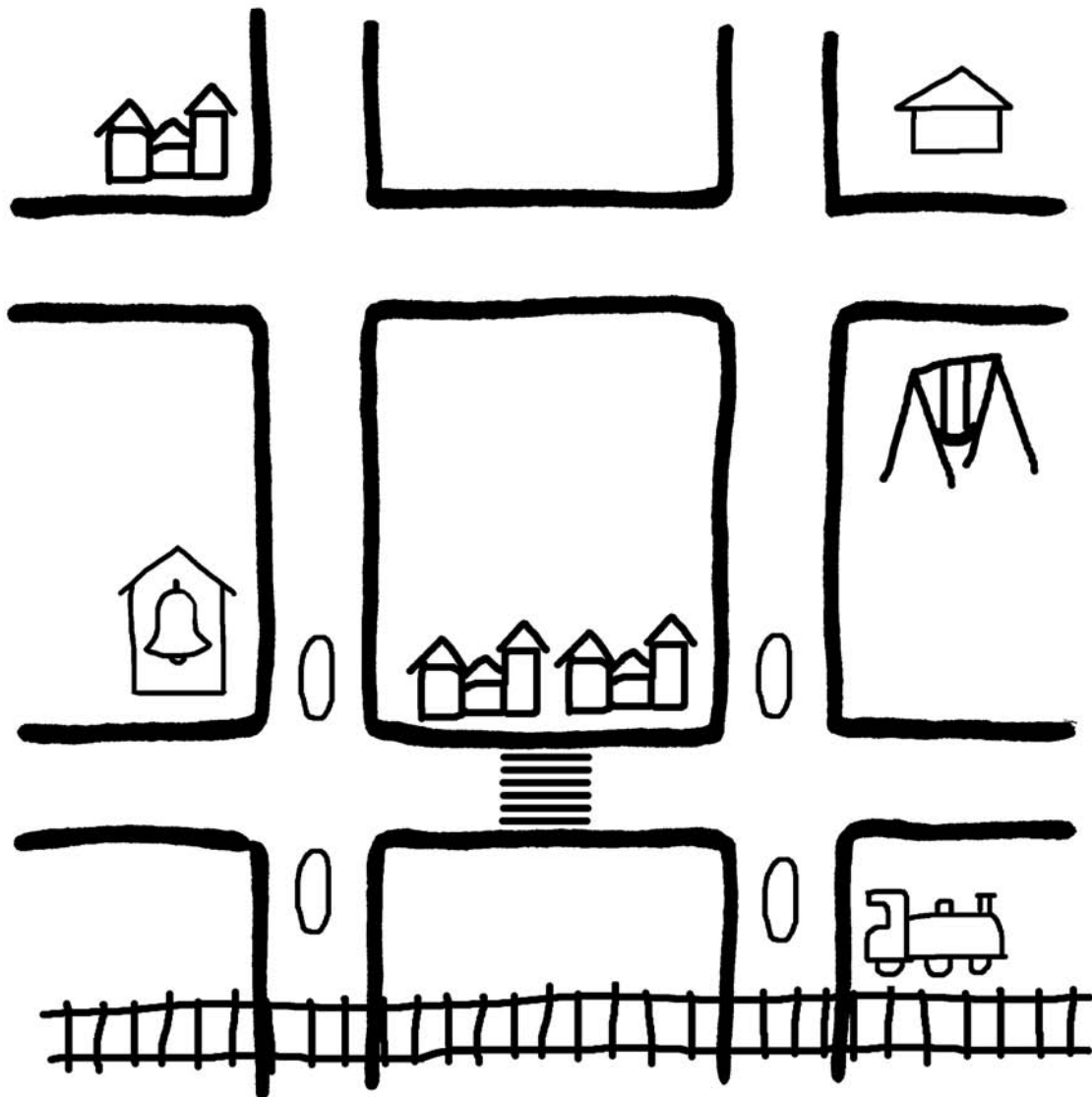
## *Tactile map*



*Enlarge the opposite page to A3 size and stick it onto cardboard to make it firm. Look at the route which Marcus needs to walk to get from home to school.*


- Find some textures to stick on which give a different feel to the important parts. You could try wool, felt, sandpaper, string, material, buttons, contact, ribbon and pipe cleaners.*
- Remember to put a sample of each texture in the key.*
- Close your eyes to test out the map and let your fingers do the walking.*

# Marcus' Suburb




Home 

Traffic island 

Zebra crossing 

School 

Playground 

Train station 

Railway line 

Shops 

# Crossing the Road

Marcus knows what all the road signs mean, but he has to come up really close to see some of them properly. He has been learning to use his monocular to read the street names. He can focus the monocular on the green man at the traffic lights to see when it safe to cross the road.

Marcus has also been learning where to look so he can see traffic coming and cross the road safely using his peripheral vision. In the spot where the annoying truck is always parked, he stands at the edge of the truck nearest the traffic and looks for cars from there.



If Marcus keeps his eyes too still, he sometimes misses seeing cars. He needs to scan side to side with his eyes and his head, as well as listen, to make sure the road is clear.

Sometimes Amanda gets Marcus to close his eyes and practise using his hearing to judge whether it is a safe time to cross the road. Marcus' heart always beats a bit faster when he has to do this.

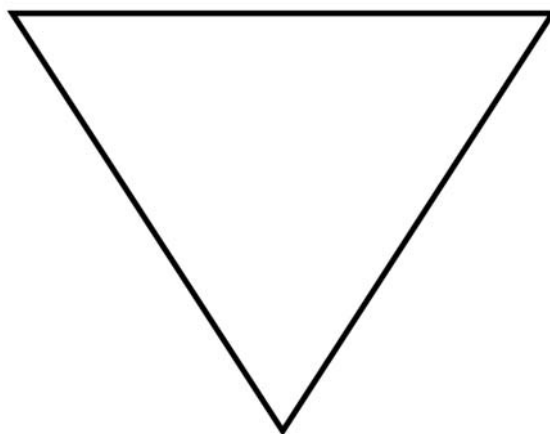
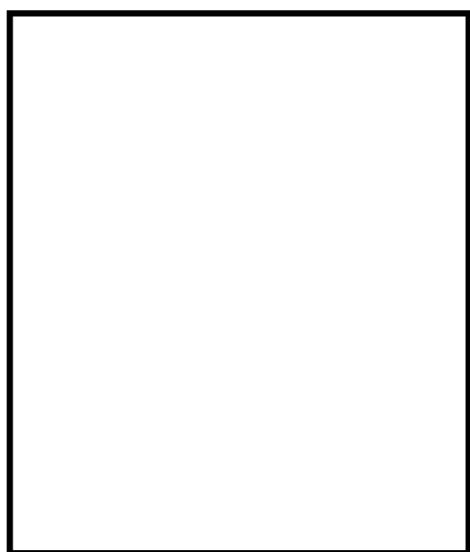
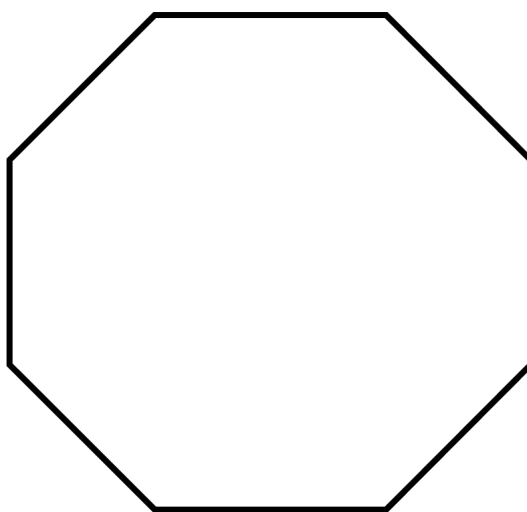
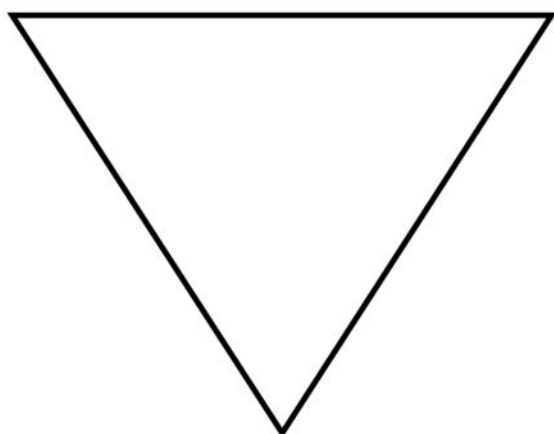
Amanda has been to Marcus' school to tell the kids in his class about low vision. They wore low vision simulators while playing hide-and-seek in the playground.

# Road Signs

Use the shapes below to draw:

- a give way sign
- a stop sign
- a roundabout sign
- a speed limit sign

Make sure you get the colours right.



- What other signs would fit these shapes?
- What is the difference between yellow and black signs and those with black, red and white colours? Discuss it with an adult.
- On a blank piece of paper, design a new road sign and get a friend to guess what it means.



# Camp

During the school holidays, Marcus went on a mobility camp at Guide Dogs Victoria in Kew. The camp was run by the O&M instructors, including Amanda. Most of the kids there had low vision and one boy was completely blind. They went to the highest place and the lowest place in the centre of Melbourne (guess where!) and learned about travelling safely in the city.

They practised crossing roads and catching trains, trams and buses, asking for directions, using maps and working together as a group.

Marcus made two new friends on camp, Alex and Sally.



# Mobility Aids

A mobility aid is anything which helps you to move safely from one place to another. Many mobility aids have wheels. Some help your eyes to see better. Others can help you to feel the way.

The main mobility aid Marcus uses at the moment is his monocular. But when he was on camp, he noticed how many other mobility aids the kids used to help them get around safely.

This made him glad because he knows his vision won't ever be good enough for him to learn to drive. He found there are so many other ways to get around!



## Unscramble!

Unscramble the following words to see what mobility aids are used by other kids:

tah \_\_\_\_\_

conomlura \_\_\_\_\_

gnlo neca \_\_\_\_\_

meitblate \_\_\_\_\_

di cnea \_\_\_\_\_

nsugaslses \_\_\_\_\_

xtia \_\_\_\_\_

chtro \_\_\_\_\_

ubs \_\_\_\_\_

blimoe nophe \_\_\_\_\_

kebi \_\_\_\_\_

degui ogd \_\_\_\_\_

ratni \_\_\_\_\_

mart \_\_\_\_\_

nelap \_\_\_\_\_

rac \_\_\_\_\_

# Alex

Alex is 12 years old and he lives on a farm in the country. He has tunnel vision (retinitis pigmentosa). The patch of vision he can see is getting a little bit smaller every year.

Alex can see everything right in front of his eyes. He can see colours and fine detail clearly, so reading and watching TV are easy, but he doesn't have good peripheral vision. Sometimes Alex trips over or bumps into obstacles if he turns too quickly. He needs to move his head to scan and see where to walk safely.

Alex can't see very well at night time. He always takes his torch when he goes out after dark. There are a lot of things to trip over on the farm!

When he was on camp, Alex got to try using a long cane at night. It was great. He said it was like having an extra-long arm to feel the ground ahead of him. Alex plans to spend some time with an O&M instructor soon, to learn how to use the long cane properly. It takes quite a lot of practice to use the long cane really well.

## *Scanning with tunnel vision*

*Cup your hands either sides of your eyes, like the blinkers worn by horses, to narrow your field of vision. Choose something to look for (such as people, cars, red things or chairs) then scan slowly, moving your head from one side to the other and count the things you have chosen.*



*If you move your head or eyes too quickly you may get dizzy.*

- *You could hold a cardboard tube up to one eye when scanning.*
- *Try scanning through a drinking straw.*

## Spot the differences

Scan these two pictures carefully and find the ten differences between them.



# Sally

Sally is nine years old and she has albinism. She has really white hair and she has trouble seeing the fine detail in anything she looks at. Sally's eyes have been like that since she was born.

Sally's eyes are very sensitive to glare – in bright light, her eyes hurt and she gets headaches, so she wears a hat and sunglasses every time she goes outside. Sometimes she needs to wear them inside too! At home she likes to keep the lights turned down.

Sally has trouble judging how far away things are. She uses an identification (ID) cane when she goes out. It is a short white cane she holds across her body to tell people she can't see very well. She finds it really handy when she goes shopping with her mum – people stay out of her way a bit more.

When she doesn't want to use the ID cane, she folds it up and puts it in her backpack.

Sally also uses a magnifier and needs large print for reading. She can't read for very long as her eyes get too tired.





# Occupational Therapy

On camp, Tom the occupational therapist was there early every morning to help the kids learn how to get their own breakfast. Some kids had never done this before, but Marcus had. A few kids needed help learning to find their clothes and getting themselves dressed.

The kids did some cooking and had to practise their table manners. One evening they went out to a restaurant for dinner. They had to talk to the waiter and order their own meals. Marcus had chicken parmigiana with salad and chips. Yummo!

## *Get dressed*



*In the morning, try getting dressed in the dark. Leave the curtains shut and don't turn on the light.*

- *Can you find what you are looking for? Do you put on anything back to front? Do your socks match?*
- *You could also try making your bed, sorting out your toys or brushing your teeth in the dark.*

## *Pour a drink*

*Drape a tea towel over your face then try pouring a glass of water from the kitchen tap. Listen to the changing sound as the glass fills up. How close can you get to the top without letting the glass overflow?*

- *Can you fill the glass from a jug? Try it over the sink or a tray. Is the sound any different to using the tap?*

## *Make a sandwich*

*Keep the tea towel draped over your face and try making yourself a sandwich. You can choose spreads or something tricky like salad. Take care if you're using a knife!*

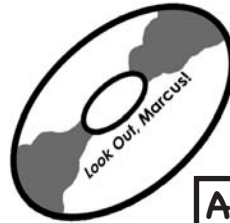
- *Can you find what you want on the bench? Can you put the right amount of spread on the bread? How long does it take?*
- *How many times do you want to cheat and peek a look?*

## Low vision equipment

Marcus has learned about a lot of equipment which is used by people with low vision. Much of this equipment is available through Vision Australia. Match the letter of each picture with its description:

### \_\_\_\_\_ Screen Reader

Computer software which reads the screen out loud.



A

B



### \_\_\_\_\_ Screen Magnifier

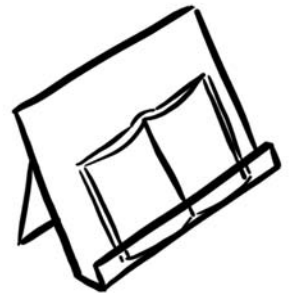
Software which enlarges everything on the screen.



E

### \_\_\_\_\_ EMU Electronic Magnification Unit

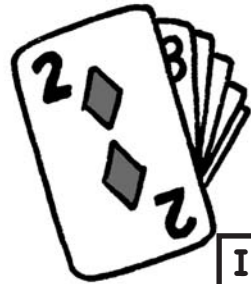
Can enlarge a printed page up to 60 times. Sometimes called a CCTV



F

### \_\_\_\_\_ Talking Book

Book read onto a cassette, CD or DAISY format; available from SVRC and libraries.



I

### \_\_\_\_\_ Monocular

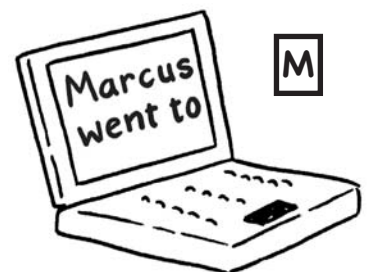
Hand held device for enlarging the distance, like binoculars for one eye.



L

### \_\_\_\_\_ Talking Calculator

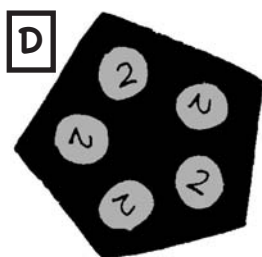
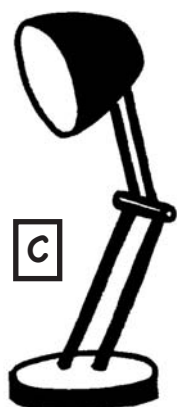
Reads the numbers aloud as buttons are pressed.



M

### \_\_\_\_\_ Coin Holder

Holds \$1 and \$2 coins only - no other size coin will fit.



### **Magnifier** \_\_\_\_\_

*Hand-held device to enlarge print; may have a light built in.*

### **Liquid Level Indicator** \_\_\_\_\_

*Hangs over the edge of a cup and beeps when the cup is full.*

### **Talking Watch** \_\_\_\_\_

*Reads the time aloud at the push of a button.*

### **Task Light** \_\_\_\_\_

*Lamp which can be moved and directed onto a workspace.*

### **Mimio** \_\_\_\_\_

*Takes pictures of the whiteboard and sends them to a laptop.*

### **Reading Stand** \_\_\_\_\_

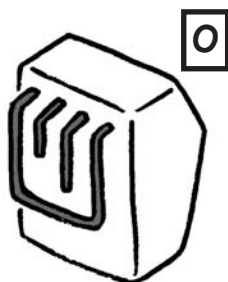
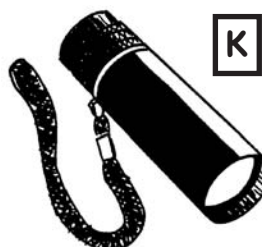
*Holds books or papers at a comfortable reading angle.*

### **Large Print Books** \_\_\_\_\_

*Often published in size 18 font; available from SVRC and libraries.*

### **Jumbo Playing Cards** \_\_\_\_\_

*Bigger than normal cards with clear numbers/pictures.*



# What Can Kids With Low Vision Do?

Marcus' friends at school know he can do just about everything.

But sometimes when Marcus meets new people, they act all embarrassed and nervous around him.

Marcus hates it when people think he can't do things because of his eyes. He likes it when they just ask straight out what they are wondering.

Whenever they ask, 'Hey Marcus, do you want to play soccer?' of course the answer is always 'Yes!'



NBH

# Wordfind

Here are just some of the activities which kids with low vision might enjoy. Find them hidden in the puzzle below. Circle the leftover letters to work out the hidden message.

ballet  
boardgames  
camping  
computer games  
cooking  
cricket  
cycling

darts  
drama  
email  
guitar  
horseriding  
independence  
music

netball  
painting  
piano  
shopping  
soccer  
surfing the net

swish  
tae kwon do  
television  
travel  
uno  
writing

L	H	S	I	W	S	O	G	U	I	T	A	R	W
C	O	M	P	U	T	E	R	G	A	M	E	S	E
A	R	V	I	S	E	I	G	N	I	K	O	O	C
M	S	P	O	G	N	I	P	P	O	H	S	C	N
P	E	A	T	A	E	K	W	O	N	D	O	C	E
I	R	I	E	M	H	N	R	L	I	A	M	E	D
N	I	N	K	A	T	C	I	S	U	M	C	R	N
G	D	T	C	R	G	A	T	R	A	V	E	L	E
T	I	I	I	D	N	P	I	A	N	O	N	B	P
E	N	N	R	E	I	G	N	I	L	C	Y	C	E
L	G	G	C	A	F	C	G	H	S	T	R	A	D
L	U	B	O	A	R	D	G	A	M	E	S	A	N
A	L	N	L	E	U	N	E	T	B	A	L	L	I
B	N	N	O	I	S	I	V	E	L	E	T	G	E

\_\_\_\_\_

\_\_\_\_\_



## Tips for Teachers and Parents

Children begin to develop their understanding of the world right from birth. They learn by observing people and things around them, noticing similarities and differences. Vision gives them information more quickly than their other senses, so they rely on it for the majority of their learning. We all do. But when a child has low vision, her ability to learn by observation is restricted. She may not see as far, as widely or as clearly as other children and therefore is not privy to the same learning opportunities by observation.

A child who has had low vision since birth assumes at first that everyone else sees as he does. Young children tend to be egocentric and regard their own experience as normal, and pity is not helpful. But a child who has lost vision more recently, or who experiences ongoing deterioration of vision, is likely to experience grief at his loss. Support and understanding are essential.

Find out more about the cause and prognosis of the child's vision impairment. An eye report from her eye specialist is always a good start. In the context of activities, encourage the child to tell you specifically what she can see well and what she has difficulty seeing. Watch her carefully and keep an observation journal of her visual functioning.

Children with low vision need extra time to do activities – to come up close, touch, smell, taste and look carefully at what they are learning about. They need to be allowed to move their head and adopt the best possible position to use their vision (this might not be sitting upright, looking straight ahead). Curiosity and independent exploration need to be encouraged.

A child with low vision should be offered a rich vocabulary that is relevant to the things he is exploring, so he makes the link between language and his experiences. He needs explanations that make sense to him. He needs opportunities to ask questions, to fill the gaps in his understanding.

A child with low vision usually needs to be taught social skills intentionally. She can miss seeing facial expressions, mannerisms and gestures at the critical moment. She can feel left out of social interactions and may need to have social rules clarified.

Looking at the world with low vision can be rather tiring. Take note when the child is having difficulty. You might offer help or encouragement, or modify the activity to be more achievable, but don't fall into the habit of doing everything for the child – this does not help him to become independent.

If in doubt, ask a low vision professional about the aspects of low vision that make you curious.



# Children's Mobility Service


Did you know that the Children's Mobility Service works with vision-impaired students, from preschool up to and including tertiary education? The Children's Mobility Service offers:

- ♦ Individual Orientation and Mobility programs for students during school time, after school or during the holidays
- ♦ Liaison with the student's family, teachers and carers
- ♦ O&M Camps every school holidays, and sometimes during term time as well
- ♦ Day programs or evening programs for students on specific topics such as night travel or city travel
- ♦ Workshops for school groups on low vision and mobility
- ♦ Professional development for teachers and others
- ♦ Environmental assessment of schools to look at safety and access from a low vision perspective

The Children's Mobility Service is part of Guide Dogs Victoria. Services are provided free to all clients throughout Victoria. You do not need a referral from a doctor. Simply phone, fax or email us.



Guide Dogs Victoria  
Private Bag 13, Kew VIC 3101, AUSTRALIA  
(Chandler Highway, Kew)  
Phone: +61 3 9854 4444  
Fax: + 61 3 9854 4466  
Email: [referrals@guidedogsvictoria.com.au](mailto:referrals@guidedogsvictoria.com.au)  
Website: [www.guidedogsvictoria.com.au](http://www.guidedogsvictoria.com.au)



**Page 23:** hat, long cane, ID cane, taxi, bus, bike, train, plane, monocular, timetable, sunglasses, torch, mobile phone, guide dog, tram, car

**Page 25:** moon, star, zipper, right hand, eyes in burrow, freckle, dog's collar, grass

**Pages 28-29:** A=talking book, B=EMU, C=task light, D=coin holder, E=mimio, F=reading stand, G=large print books, H=screen reader, I=jumbo playing cards, J=talking calculator, K=monocular, L=talking watch, M=screen magnifier, N=magnifier, O=liquid level indicator

**Page 31:** low vision can be a challenge

*Answers*

Marcus has central vision loss and he loves to play soccer. Last holidays he went to a camp at Guide Dogs Victoria. There he made friends with Alex who has tunnel vision and Sally who has blurry vision.

Find out more about low vision as you meet Marcus and his friends.



*Look Out, Marcus!* has been created for use in the classroom, to help children aged 8-14 and their teachers to understand the challenges of living with low vision.

This activity book can be used in conjunction with low vision workshops. It is also a fun and informative tool for children to explore life with low vision at their own pace.