# YOUR VISION: EVERYTHING YOU NEED TO KNOW ABOUT YOUR SUPERPOWER



Teaching guide for children 7 to 11 years old





# A SUPER GUIDE FOR YOUR SUPER-EYES





## YOUR EYES—UNIQUE AND PRECIOUS

Are your eyes blue, green, hazel, dark brown or grey? Do you find that they look like those of your parents, your brother, your sister, your friends ...? In fact, no one has the same eyes as you!

Your eyes have a superpower: They let you see. Even at night, when you think that your eyes are resting, they aren't. Behind your closed eyelids, they continue to move as you dream. You will need your eyes throughout your entire life. Just imagine how precious they are! That is why you must take care of them every single day.

This little guide will help you understand everything about your eyes' superpower. Do you need a magic accessory — eyeglasses? You will learn just how much they change your vision!



Like your fingerprints, your eyes are unique.

# SUMMARY

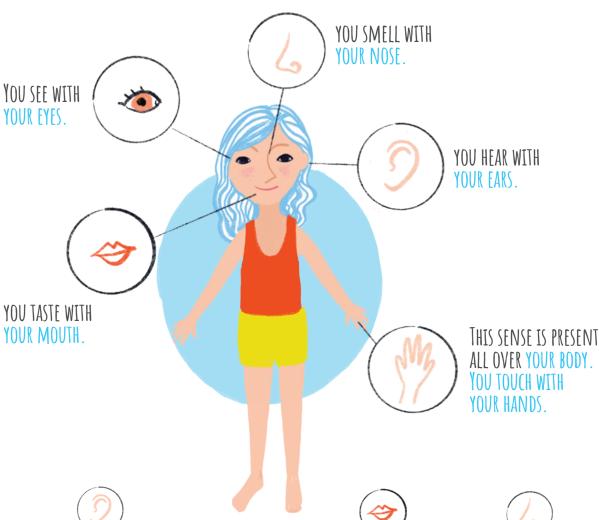
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# EYESIGHT AND THE 5 SENSES

### THE 5 SENSES: YOUR SUPERPOWERS!

Your senses are what let you know and recognize what is around you: people, the smell of flowers, the way objects feel ... you have five senses.

When you were a baby, even before you knew how to walk or talk, you were already using your five senses. In fact, the five senses are the **superpowers** you've had since you were born. Do you know their names and their secret hiding places?





#### Superpower n°1: EYESIGHT

Lets you see everything around you. Sight is one of the most important superpowers. That is why you need to pay special attention to it.



#### Superpower n°2: HEARTNG

Lets you hear all the sounds around you: voices, music, barking, airplanes, cars ...



#### Superpower n°3: TOUCH

Lets you feel if something is hard, soft, hot, cold, dry, wet...



### Superpower n°4:

Lets you know if what you are eating is salty, sugary, sweet, spicy, whether it tastes "good" or "bad"!



### Superpower n°5:

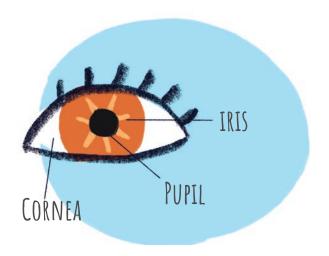
Lets you smell odours and scents. For example, your sense of smell tells you that a bouquet of flowers smells good or that your dog needs a bath!

# HOW DO YOU SEE?



Your pupils grow and shrink to always let the same amount of light enter your eyes. That's why when you're in bright sunlight, your pupils are tiny; when you are in the dark, your pupils are bigger!

IRIS



# WHEN LIGHT STRIKES YOUR RETINA, YOUR BRAIN SEES!

It's your brain that "decodes" in images, colours and depth, what the retina receives in light.

Without light, you do not see.

#### RETINA

Sensitive membrane that lines the bottom of your eyeball

### CORNEA

A kind of "glass" that protects the eye

#### LIGHT

Passes through the pupil to the retina

#### PUPIL

CRYSTALLINE LENS

Adjusts the focus



### HOW DOES YOUR EYE FOCUS?

Hold your right index finger in front of your nose and gaze at it: you will see it clearly, but the background will be blurry. Still holding your right index finger in front of your nose, gaze at the background. Now your finger will look all blurry. It's your crystalline lens that handles the focus.



# YOUR EYESIGHT CHANGES!



When you were born, your eyes were not quite "finished"; you saw things blurry!



At 6, your vision is ready and you see properly.



Your vision develops until you are 12 years old.

# WHY IS YOUR SIGHT A SUPERPOWER?

- **1.** Because you can see things that are very close and very far away.
- **2.** Because you can see in bright sunlight and in the darkness.
- **3.** Because you can distinguish thousands of shades of colours.
- **4.** Because you can precisely judge distance.
- 5. Because you can see in 3D.
- **6.** Because you can see in front of you and on the sides without turning your head.

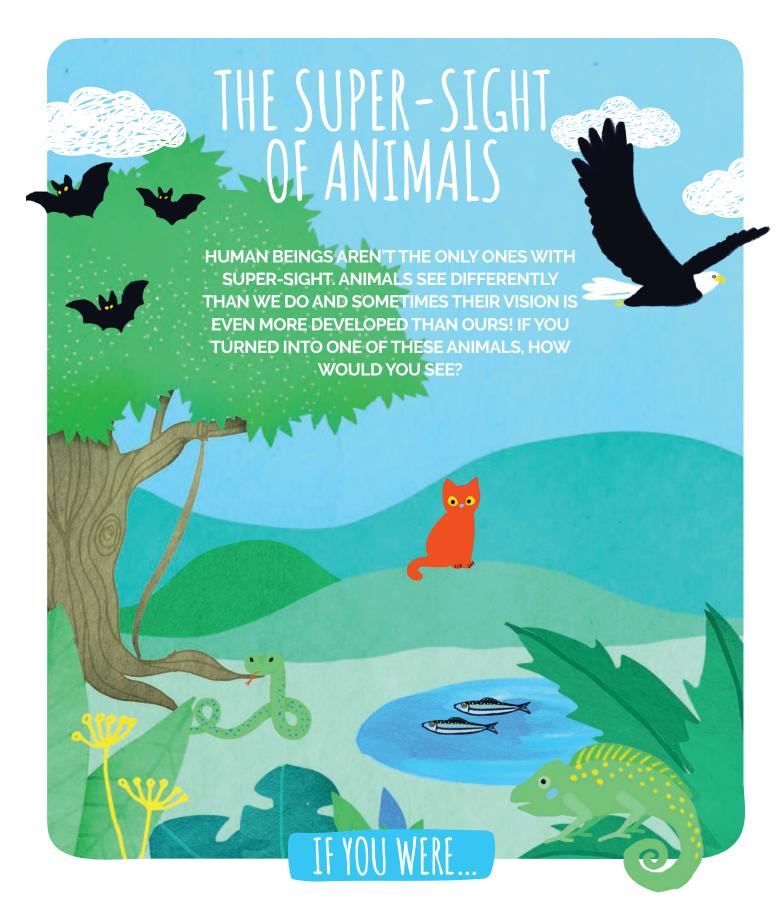
That is what's called "a large field of vision."

SOMETIMES, YOUR SUPERPOWER NEEDS A LITTLE HELP,

## SUPERPOWER SOS

All of the five senses are important, but some people might be missing one sense, their sight, for example. How do they manage without it? They rely even more on their **other senses!** 





#### AN FAGIF

You would be able to see things that were very very far away, because you would have very large eyes, like super-binoculars.

#### A CHAMFIFON

You would be able to see in front and behind you at the same time because you could move your right eye in a different direction from your left eye.

#### A CAT

You would be able to see super well in the dark thanks to your pupils shaped like slits and your retina that doesn't need much light to capture images.

#### A BAT

You would be able to see using your ears: you would emit a cry and the echo would tell you what was around you.

#### A FISH

You would be able to see clearly underwater without needing to wear eyeglasses or a facemask.

#### A SNAKE

You would be able to see heat. That's right. You wouldn't need to touch something to know whether it was hot or cold!

# SEEING WELL... OR NOT!

# WHAT DOES SEEING WELL MEAN?

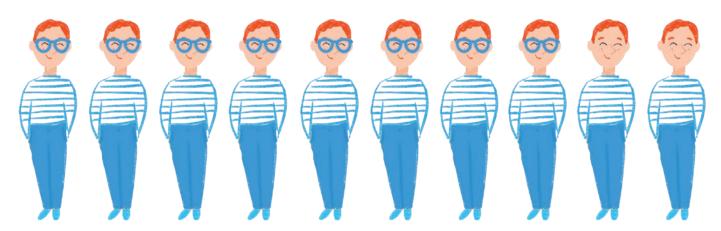
It's not easy to know if you are seeing well... or not! Sometimes, you realize that the things look blurry or slightly distorted.

But most of the time, you aren't aware of it, because your body adapts: one eye works harder than the other, you move closer or further away to see better, you find tricks to differentiate colours. So, let's take a look at the kind of "weaknesses" your vision superpower could have.



## VISION WEAKNESSES AFFECT ALMOST EVERYONE

# 8 OUT OF 10 PEOPLE HAVE A VISION DEFECT\*



## WEAKNESS N°1 Myopia

You squint, you move closer, you have to work hard to see things that are far from you.



## WEAKNESS N°2 HYPEROPIA

Your eyes must work very hard to see things, especially up close.



## WEAKNESS N°3 ASTIGMATISM

You see things a bit distorted. When you're reading text, you will confuse the letter D and the O or the H and the M because your eyes will change their shape slightly.



# AND PRESBYOPIA?

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It's another weakness, but it doesn't affect you because it only appears after 40 years of age.



When you have presbyopia, you not see wel up close because, as we age, the crystalline lens has trouble changing shape to focus clearly on near objects.

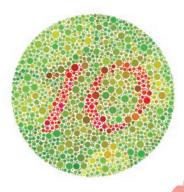
All these weaknesses can appear in different ways in children, just as they do in grownups. You can have just a little hyperopia or have both myopia and astigmatism...

THE GOOD NEWS IS THAT WE CAN EASILY CORRECT THEM. WE ARE GOING TO EXPLAIN HOW!

### COLOUR BLINDNESS— A WORLD OF DIFFERENT COLOURS

Some people are colour-blind since birth. They don't see colours like other people because tiny parts of their retina, called "cones," are either missing or not numerous enough.

Our eyes perceive colours thanks to these specialized cones. Each cone is sensitive to a color: red, blue, green.

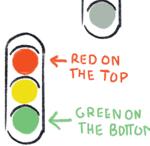


People who are colourblind have trouble reading the number in this coloured circle. What about you? COLOUR BLINDNESS
IS NOT SERIOUS!
IT CAN'T BE FIXED
BUT YOU LEARN TO
LIVE WITH IT AND
FIND TRICKS FOR
"RECOGNIZING"
COLOURS.

#### Do you know?

How a colour-blind person distinguishes a red light from a green light?

Answer:
By deduction.



## "LAZY" EYE

At daycare or at kindergarten, do you know or have you ever seen a child wearing a patch over one eye, like a pirate? It is probably someone with a "lazy" eye. That means that one of their eyes does not see as well as the other: the eye that sees badly is no longer making an effort; it's "lazy"! Doctors call that amblyopia.



# AND WHAT ABOUT MY OWN VISION?



# "WEAKNESSES" THAT ARE OFTEN HIDDEN

When your vision superpower has one of the three "weaknesses," you often outsmart them and adapt.

How do you see things better that are far away? You get closer; you squint. How do you see things better that are close? Your crystalline lens works hard; it contracts. All these actions help "compensate" for the weakness, as if it did not exist.

That is why you do not always realize that your superpower is weakened! But by forcing your eyes, you may feel discomfort or pain. Despite your efforts, your vision is not perfect and it will slow you down in your activities.



# ASK YOURSELF THE FOLLOWING QUESTIONS:



Do you often have headaches?



Do you squint? YES - N



Do your eyes sting? YES - NO



Do you get tired quickly when you are drawing or writing? YE - W



Do you have trouble reading the board when you are at the back of the classroom? 15-10

#### DID YOU ANSWER YES TO ANY OF THESE OUESTIONS?

You may be compensating for a weakness in your vision superpower. For you, that is unpleasant or tiring.

#### DID YOU ANSWER NO TO ALL FIVE OUESTIONS?

Bravo! You seem to have a super superpower. But if you have never been to the eye doctor, or not for a long time, it is important to go (again) to be sure.





# THE SUPER-TEST FOR YOUR EYESIGHT

### THE SUPER-DEFENDER OF YOUR EYESIGHT

#### is a doctor called an optometrist.

He will tell you if you have one of the three weaknesses (hyperopia, myopia or astigmatism), or if your superpower is intact! To find out, he will have you do different tests to check if your eyes are in good health. If needed, he will help you take care of them.

### TEST N°]

Read the letters in a book or on the eyechart hanging on the wall.



Why does the optometrist always examine one eye and then the other? To determine if only one eye has a weakness or if both eyes do! It is rare that both eyes have exactly the same strength.



### TEST N°2

Look through weird eyeglasses. You must tell exactly what you see or what you are not able to see. The optometrist will change the lenses in the eyeglasses or in the machine several times and will ask you more questions.



This funny machine helps check the health of your eyes.

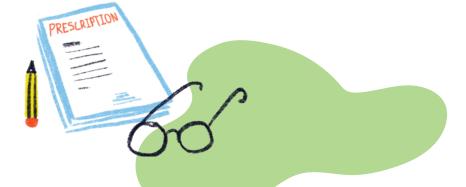
Why does the optometrist sometimes put drops in your eyes before examining them? To put your eyes to sleep during the examination. Your pupils will then open wide (we say they are "dilating") so the doctor can properly observe your retina. You may need to wear sunglasses after your appointment because you will find the light very dazzling.



After the drops, your pupil become large and all black.

At the end of the test, if the optometrist detects a weakness, he will suggest a way to correct it, generally by wearing a super-accessory:

EYEGLASSES!



# TAKING CARE OF YOUR VISION

# RULES FOR PRESERVING SUPER EYESIGHT



#### It's simple!

Your parents can go to **essilor.ca** to make an appointment with the eyecare professional closest to your home\*.

\*essilor.ca/en/get-lenses/where-to-buy





Don't read in the dark.

At night, use a lamp for reading or doing homework.

- Keep you exercise book or book at the proper distance, not too close and not too far.
- Change your reading position often: when seated at your desk, on a sofa, even stretched out in bed.

# OUTDOORS

- **Don't rub your eyes** with dirty fingers. You could get sand, dirt or dust in your eyes.
- Don't open your eyes under water (unless you are wearing goggles or a facemask).
- Be careful when playing with sticks, stones, balls ... If they hit your eye, you can get really really hurt!
- Protect your eyes from the sun.



# DEVELOPING GOOD HABITS

To make sure your eyes keep their superpower, here are a few everyday safety measures!

# THE SUN AND ITS RAYS

We couldn't manage without the sun! It emits a super light that helps you wake up in the morning and produce your own vitamin D to help you grow (among other things). But the sun can also hurt your eyes because it emits invisible rays called ultraviolet (UV). Researchers believe that if you get too much exposure to these rays, the cells in your eyes can age too quickly.

Sunglasses protect your eyes from the sun just like sunscreen protects your skin. Put on your sunglasses as soon as you go outside!



# DID YOU KNOW?

Eating right is good for your eyes! Even airplane pilots are eating blueberry jam to get super-sight, because blueberries have "antioxidants" and "polyphenols" that help to see well. Carrots, which are high in beta-carotene and vitamin A, are also an ideal food for healthy eyes.



### SCREEN TIME

• Don't look at screens from too close up: For example, hold your arms out in front of you. Arm's length is the right distance for a tablet or laptop.

• Control the **brightness** of the screen. When there is not too much light around you, reduce the screen brightness. When there is a lot of light around you, increase the screen's brightness.

• Don't forget to **blink** your eyes often.

# BEING OUTSIDE IS GOOD FOR YOUR EYES!

Play outside everyday.
Researchers have found that being outdoors can prevent myopia or stop its progression\*.





When you are too close, your crystalline lens has to work very hard to focus and your eyes get tired!



### A TRICK

# DO YOU KNOW THE 20/20 GAME?

It's a game that helps you take care of your eyes when you are in front of a screen.

Every 1 minutes, spend 2 seconds looking away or out the window





# WELCOME TO THE SUPERHERO "FYEGJASS TEAM"!

It's official: you have to wear eyeglasses.

Maybe you think that glasses make you less attractive, less strong, that they are uncomfortable, impractical ...

**That's not true.** The proof: almost every superhero wears them in their real life! Now that you have eyeglasses, you are ready to join their club...

# NAME 3 "EYEGLASS" CHARACTERS

YOU'VE COME ACROSS IN A STORY, COMIC, MOVIE, CARTOON ...

Character 1:
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Character 2 : \_ \_ \_ \_ \_ \_ \_ \_

Character 3:\_\_\_\_\_

# HOW TO CHOOSE YOUR EYEGLASSES?

There is just one rule: please yourself!

The optician, the super eyeglass expert, will help you choose the right frames for your face: not too narrow, not too wide. Anything goes, so choose the style you like best, the one you will be happy to wear every day!





If your eyeglasses are perfectly suited to your vision and your face, you will quickly forget you are wearing them. Not only will you see better, but you will also have something that others don't!

# 4 GOLDEN RULES FOR TAKING CARE OF YOUR EYEGLASSES



I wear them properly positioned in front of my eyes, at the top of my nose. If they slide down my nose or get bent, I go back to the optician to have them readjusted.





If I need to take off my eyeglasses, I always place them face up on the folded arms, never face down on the lenses.





I put my eyeglasses away in their case when I am not using them so they don't get damaged.



I never lend anyone my eyeglasses! My eyes are unique and my eyeglasses are made only for me!

# WHEN AND HOW TO CLEAN YOUR EYEGLASSES?

- Every day with the cloth given to you by the optician, never with your sweater, a Kleenex tissue or kitchen wipes.
- Once or twice per weeks
  with a product recommended
  by your optician, or with mild
  soap and warm water.
- Every 6 months at your optician's in an ultrasonic bath and have them readjusted at the same time.

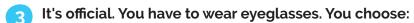








- At the beach, your cousin decides not to wear his sunglasses:
- a/ You do what he does, even if that damages your eyes
- b/ You talk to him about UV rays and you encourage him to wear his sunglasses
- Your best friend always colours the grass in brown:
  - a/ You ask him if he is colour-blind
  - b/ You ask him if he lives on Mars



- a/ Super-stylish frames that perfectly suit your face
- b/ Any old frames and don't care



- a/ You compare her to René the mole, because moles see almost nothing at all!
- b/ You encourage her to talk to the teacher, even if her mistakes don't bother you
- Tomorrow, you have an appointment with the optometrist for:
  - a/ An eye checkup
  - b/ A math test
- 6 When do you go back to the optometrist?
  - a/ Never. Your eyesight is perfect and will stay that way for life!
  - **b/** About once a year, because your vision continues to change.



#### MORE THAN 3 RIGHT ANSWERS:

For you, there's nothing mysterious about your vision superpower. You know how to take care of your eyes. Bravo! Keep up the good work.

#### FEWER THAN 3 RIGHT ANSWERS:

You don't know quite enough about your vision superpower. Read this guide again carefully and all will be well!



# FOR THE GROWNUPS'



AT WHAT AGE?	WHICH EXAM?
From 0 to 3 years old	The first year, during your child's annual wellness check for their first vision test. This helps screen for amblyopia*, for example. It is recommended that all children undergo a comprehensive eye exam with an optometrist by the age of 3.
Starting at 5 years old (beginning kindergarten through all schooling)	Before beginning the school year, a comprehensive eye exam with an optometrist is recommended to ensure that your child has good visual acuity and all the binocular skills needed to start schooling. Throughout school, an annual exam is required to assess vision changes, binocularity, and a child's eyes health; the exam is even more important if the child is already wearing glasses and contact lenses or if binocular abnormality has already been diagnosed.

### OBSERVE

As surprising as it may seem, it is not so easy to detect a vision defect. Vision defects usually appear gradually and because children do not have a point reference, they do not realize that they have a problem. Children very rarely spontaneously complain about poor eyesight.

Regular visits to an optometrist, without waiting for particular symptoms, at key milestones (starting elementary school and middle school) are helpful in knowing the exact state of your child's eyesight.

### SIGNS THAT YOUR CHILD'S VISION IS WORSENING

- · Your child squints.
- · Your child watches TV and / or reads books from up close.
- Your child is making more errors when copying from the board.
- Your child gets discouraged quickly when doing activities requiring near vision.
- Your child keeps turning his head to look at something in front of him.
- If your child's aim is poor, it may not necessarily be because he is uncoordinated.

### IF YOUR CHILD HAS HYPEROPIA?

Make sure that your farsighted child wears his glasses all day. It is possible that your child doesn't see the difference on his own and won't ask for his eyeglasses. In reality, your child is making a great effort to see and should be encouraged to wear his eyeglasses without waiting for him to feel tired.

### IF YOUR CHILD HAS MYOPIA?

At school, the smart thing is to place myopic children (even if they wear eyeglasses) close to the board so they do not get too tired trying too see from a distance. You should be aware that myopia in childhood is often very changeable and requires regular checkups to adjust the correction of their lenses.

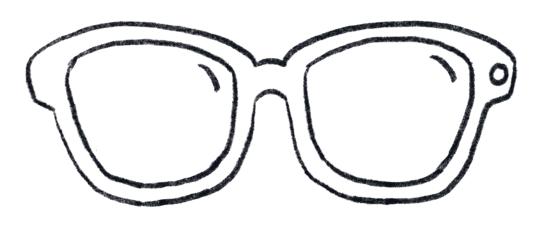
### GOOD HABITS FOR EVERYONE

- Alternate activities that call for near and distance vision: reading and then playing outside, looking at a tablet and then a walk in the park, etc.
- Encourage children to vary their near-vision activities, change positions, take visual breaks, avoid making the eyes do the same work for too long.
- Two measures recommended by researchers to slow the progression of myopia: get two hours per day of exposure to natural light and exercise your distance vision more often.

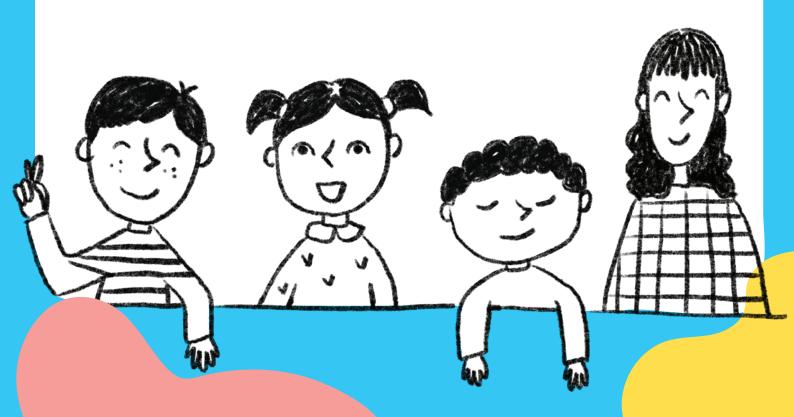
<sup>\*</sup>Amblyopia generally refers to poor vision in one eye, with no pathological lesion to account for it. It is caused by poor development of the visual function in a child with strabismus (cross-eyed) or an uncorrected visual defect in one eye. The absence of clear vision prevents the eye from developing normal connections with the brain; the eye becomes "lazy."

# HAVE SOME FUN:)

COLOUR AND DRAW WHATEVER YOU LIKE ON THE FRAMES TO MAKE THEM UNIQUE AND ORIGINAL ... JUST LIKE YOU!



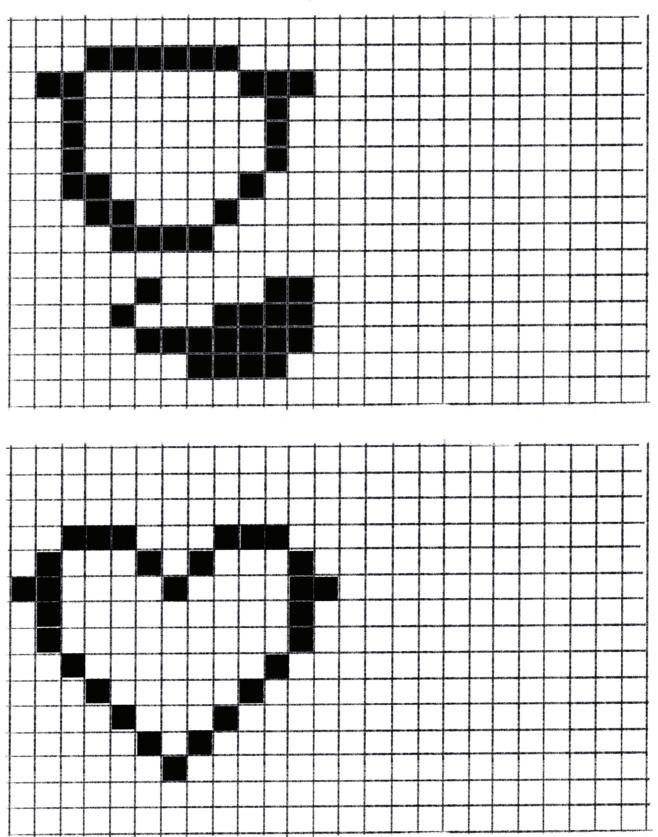
IMAGINE AND DRAW THE KIND OF EYEGLASSES THAT WOULD GO BEST WITH EACH TYPE OF FACE

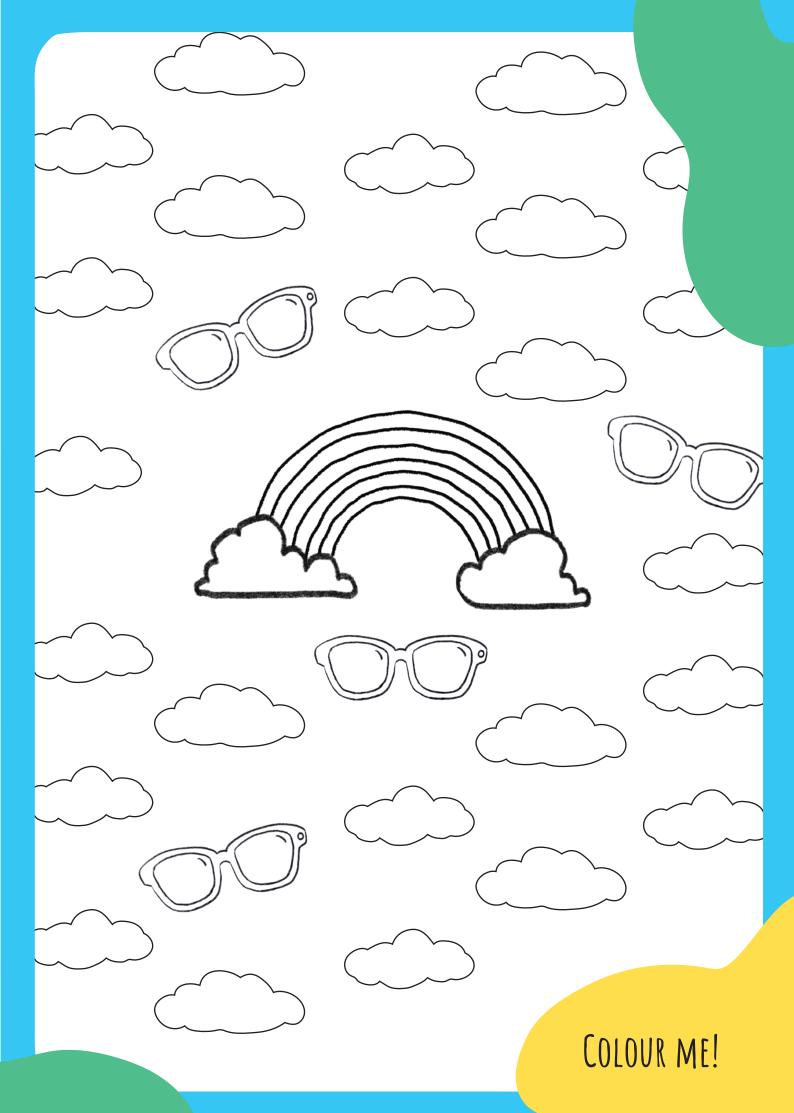


# IMAGINE AND DRAW YOUR EYEGLASS SUPERHEROS

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# WHAT DO YOUR EYEGLASSES LOOK LIKE IN PIXEL ART? COLOUR THE SQUARES ON THE RIGHT TO MAKE YOUR SUPERHERO PAIR APPEAR!





# ESSILOR'S MISSION

**Seeing well is essential for everyone.** For children, seeing well is necessary for their development and learning. Essilor, #1 lens brand recommended by eyecare professionals worldwide\*, has made this guide available to everyone to raise public awareness of the importance of visual health and good vision. It is important for people to understand that while the vast majority of visual defects can be easily corrected, they commonly go unnoticed.

This guide reflects Essilor's corporate mission: Improving life by improving sight.

\*Source: Quantitative research conducted among a representative sample of 958 independent ECPs by CSA in February 2019 - France, UK, Germany, Italy, Spain, US, Canada, Brazil, China, India

