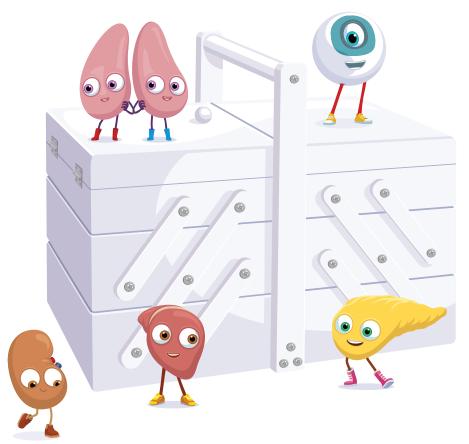


TOOLKIT 1:MEET YOUR MIGHTY ORGANS

Teacher Lesson Plan

Discover more educational tools and resources at Orgamites.ca







OUR PARTNERS



ONASSIS FOUNDATION



Canadian Blood Services















MEET THE ORGAMITES

They're a team of 9 life-saving organs (led by Captain Marrow) found in every one of us.

They're known as the mighty organs because they represent the most-donated parts of the body. These lovable characters help kids to connect with and appreciate the roles of their organs, while learning what organ donation and transplantation is all about. The Organites also inspire children to live healthier, show more compassion for others, and be more environmentally aware.

Consisting of an ever-growing range of fun, educational tools and resources — our hope is that more parents, teachers and healthcare practitioners can be empowered to have more conversations with more children, all in the hopes of changing the way people of all ages view their mighty organs and organ donation, and thereby increasing the amount of organs donated and the number of subsequent lives saved.

Every tool created has been designed in such a way as to empower you with the ideal, most informative and exciting resources to equip and educate the children in your care.

Join in the conversation @MightyOrgamites **6 2** • Please tag us, we'd love to share all your mighty artwork **#MightyOrgamites**To download our educational tools and resources please visit: **Orgamites.ca**

Testimonials

66

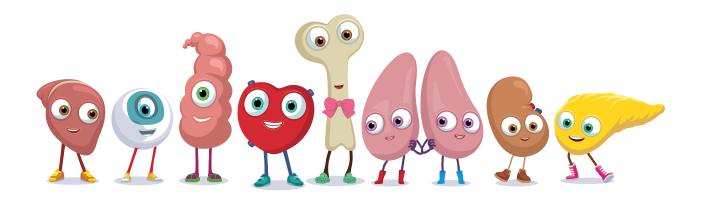
These fun characters lighten the mood, make it easier to start the conversation with family members and really open people's mind to the full possibilities of transplantation."

Mr Colin Wilson FRCS PhD | Con Hepatobiliary and Transplant Surgeon, Associate Clinical Lecturer



Our organs have always fascinated me and the Orgamites recapture my child-like wonder. If we can get more people to understand how incredible and vital our organs are, and what happens when they don't work properly, then we can get more people to consider helping others by donating theirs when they no longer need them."

Dr. Luke Yates DPhil



USING THESE RESOURCES

For this lesson, you will need:

- Meet Your Mighty Organs Scenario Cards: Pupils can use these to answer the question on slide 22.
- Meet Your Mighty Organs Matching cards: Pupils can use these at their tables to do the activity on slides 8 and 9.
- Meet Your Mighty Organs Word Game: Can pupils describe the organ to their partner without saying these words?
- Meet Your Mighty Organs Homework Sheet: Pupils share their learning at home.
- · Meet Your Mighty Organs "Having the talk at home" Sheet: Send this home to spark a discussion among families about organ donation.
- Meet Your Mighty Organs FAQs: Give these to pupils' families to answer common questions.

Are there sensitivities around the topic?

Discussing donation

The resources have been developed in partnership with teachers and experts to be age-appropriate and spark a positive discussion which empowers pupils. Please check the slides before using them with your class, so that you are aware of any material that may be especially sensitive for a particular pupil.

Faith and donation

Most religions in Canada fully support the principle of organ and tissue donation as a life-saving gift - all support the principle of blood, organ and stem cell (bone marrow) transplantation. All accept that organ donation is a matter of personal choice. As do we. Individuals and some other religious groups may, however, have different views.

Individual educators will need to be aware of any instances of children in their class who have been recently bereaved, and whether or not adaptations need to be made to the lesson suggestions or the timing of any whole school project to accommodate this.

Further questions

If your pupils or their families have further questions around organ donation, you can find more information at www.orgamites.ca

ITS WHATS
INSIDE THAT
COUNTS



Key Vocabulary

Organ, internal, external, function, bone, heart, eye, cornea, small intestine (or bowel), kidneys, liver, lungs, pancreas, donation, transplant

Who produced these resources?

These resources have been created by the Team Margot Foundation for 'Giving to Help Others', in partnership with the Orgamites (see slide 6 for more information), Canadian Blood Services and practising teachers.

Currently, there are around 4400 people on the transplant waiting list in Canada and every day someone dies in need of an organ transplant.

These resources aim to raise awareness of organ donation among the next generation and to encourage children to discuss the topic with their families at home so that:

- · more people will choose to be donors,
- · more families will understand and honour each other's wishes,
- · the next generation will understand the power of organ donation and it will become common practise.

Tell us how you have been using the resources!

info@allgoodco.org



CONTENTS AND ORDER OF SLIDES

- 1. Meet your Mighty Organs
- 2. What are organs?
- 3. Did you know?
- 4. There are five organs we cannot live without
- 5. Mighty Organs
- 6. Captain Marrow
- 7. Heart
- 8. Lungs
- 9. Small Bowel
- 10. Pancreas
- 11. Liver
- 12. Kidney
- 13. Eye
- 14. What is an organ transplant?
- 15. What is an organ donor?
- 16. Why do we talk about organ donation and transplants?
- 17. Let's Talk!
- 18. Which organs can be donated?
- 19. Which organs might be donated from living donors?
- 20. Meet Caleb
- 21. Discuss the scenario cards
- 22. Questions to think about
- 23. The Logan Boulet Effect
- 24. It's what's on the inside that counts





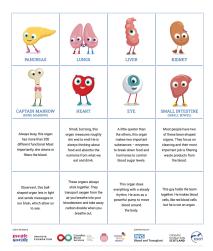
Take a look inside your body

Ask pupils to look at these body part characters. Click to reveal a question – who might be the odd one out? Encourage pupils to be ready to explain their choice.

Examples might include:

- The lungs because they are the only ones that help the body to breathe.
- · Captain Marrow (bone marrow) because it is hard, whereas the others are soft.
- The eye because you can see some of a person's eye when you look at them (whereas you can't see their lungs, liver or bone marrow) or because it is smaller than the others.
- Captain Marrow (bone marrow) because there are more than two bones in the body whereas the others come in pairs (a pair of kidneys, a pair of lungs and a pair of eyes) or there is just one of them (e.g. a heart).
- Explain that what (almost!) all of these characters have in common is that they
 represent a special body part called an organ.
- An organ is a group of different tissues that work together to do a
 particular job. Every organ in our body has a special job and they help us to
 stay happy and healthy.
- The odd one out is therefore Captain Marrow (which has bone marrow inside) which is not an organ.
- Ask children if they can think of any other organs in their body e.g. brain, stomach, intestines or skin (the body's largest organ).





Matching Cards Resource

Direct pupils to the Meet your Mighty Organs matching cards and challenge them to match each organ to its description.

Alternatively, you can do the activity with the whole class using the images and descriptions on this slide and the next.



Captain Marrow

Ask pupils where they think Captain Marrow (bone marrow) is located in the human body.

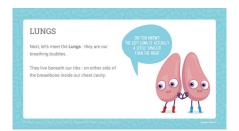
Further information:

The human body contains over 200 bones. Our bones have many important functions, from supporting our body to protecting our organs and allowing us to move. They also contain bone marrow which has the very important job of creating blood cells.

Bone marrow is mostly found in the flat bones such as the hip bone, breast bone, skull, ribs, vertebrae and shoulder blades. It is also found at the end of the long upper arm bone (the humerus, pronounced 'hyoo-muh-ruhs') and the thigh bone (the femur).

Did you know?

When you are born, you have about 300 bones, but these slowly fuse or 'grow together' as you get older.



Lungs

Ask pupils where they think the lungs are located in the human body.

Further information:

The lungs are a pair of spongy, air-filled organs found in the chest and are protected by the rib cage. They are constantly working to bring oxygen into the body and to take carbon dioxide out.

Air enters the lungs through a bony tube called the trachea (pronounced 'tra-kee-uh) or windpipe.

The lung on the left side of your body is actually slightly smaller than the one on the right. This leaves extra space on the left of your chest for your heart.

Feel your lungs in action

Put your hands on your chest and breathe in deeply, you should feel your chest getting a little bigger. Next, breath out the air and you will feel your lungs return to their normal size.



Liver

Ask pupils where they think the liver is located in the human body.

Further information:

The liver is the largest internal organ. Reddish-brown in colour, it feels rubbery to touch and sits on the right side of the belly protected by the rib cage. Every vertebrate (any animal with a backbone) has a liver.

The liver works with the pancreas and the intestines to digest, absorb and process food. Its three main jobs are to clean the blood, produce bile (which helps to break down food) and store energy.

Did you know?

The liver has an amazing ability for regrowth. A quarter of the liver can 'regrow' to its original size!



Eyes

Further information:

The eye is made up of lots of different parts, which work together to help us see the world around us.

The parts of the eye include:

- The retina the surface of the eyeball, the retina is made up of special cells which detect light and send messages to our brain to help us see.
- The cornea think of this as the 'window' of the eye. It's the clear tissue at the front of your eye which lets light in (the bit of your eye that you could touch).
- The pupil looks like a black dot, but is actually a hole through which light (having passed through the cornea) can enter the eye.

Did you know?

The cells in your eye come in different shapes. Rod-shaped cells help you to see shapes, and cone-shaped cells help you to see colour.



Small Bowel

Ask pupils where they think the small bowel (small intestine) is located in the human body.

Further information:

The intestines or bowel is part of the digestive system. It is made up of the small bowel (small intestine) and the large intestine (colon and rectum).

The small bowel is a long and winding tube in your abdomen which carries food from your stomach to your large intestine. It gets its name because of its small width (or diameter), but it is actually very long, it is just tightly folded inside your abdomen. The small bowel is where most digestion takes place and where nutrients from food gets absorbed into your body. Food spends up to four hours in the small bowel while the nutrients are absorbed into the blood.

Did you know?

The small bowel is made up of three different parts, called the ileum, jejunum and duodenum.



Heart

Ask pupils where they think the heart is located in the human body.

Further information:

The heart is found in the chest, between the lungs but slightly to the left of the chest. Like the lungs, the heart is protected by the rib cage.

The average heart is about the size of a human fist and can pump between 5 and 7 litres of blood every minute. Together, the heart, blood vessels and blood make up the body's circulatory system, which has the important job of keeping the blood moving around your body.

Did you know?

On average, men's hearts weigh slightly more than women's, but women's hearts beat at a slightly faster rate than men's.



Kidneys

Ask pupils where they think the kidneys are located in the human body.

Further information:

These bean-shaped organs come in pairs and are found towards your back, in the upper part of the tummy (called the abdomen). They are a little bigger than your fist and do a lot of different jobs, their most important job is to filter waste products from the blood and make this into urine.

Kidneys also produce a hormone that tells the body to make red blood cells.

Although they usually come in pairs, some people have just one kidney. This can be for different reasons; because they were only born with one, because one of their kidneys has been damaged or because they have donated (or given) one of their kidneys to someone else.

Did you know?

Drinking enough water is a good way to help your kidneys to work properly.



Pancreas

Ask pupils where they think the pancreas is located in the human body.

Further information:

The pancreas is found in the upper part of the tummy (called the abdomen). It is positioned behind the stomach and in front of the spine. It is about 15cm long and is surrounded by other organs, like the liver and small intestine (small bowel).

The pancreas is important for digestion. When food enters your stomach, the pancreas releases special digestive juices which are sent to the small intestine to help break down food.

Did you know? Your pancreas produces 6 to 8 cups of digestive juices every day!

WHAT ARE ORGANS? Organs are the different working parts inside us. They each have a job to do and together, when they work like they were designed to, they make our bodies work like well-oiled machines!

What is an organ?

Organs are the working parts inside us. They each have a job to do and together, make our body perform like a well-oiled machine.

Explain that sometimes a person's organ might not work properly.

An organ that isn't doing its job can cause all kinds of difficulties.

For example if a person's eye isn't working properly, they might have limited vision or lose their sight completely.

Or if a person's kidneys aren't doing their job, then their blood won't be cleaned. Extra fluid can build up in the blood which can lead to things like nausea and weakness. If a person's bone marrow isn't making the right blood cells, their blood won't be able to do its important jobs like carrying oxygen and energy around the body or helping to fight disease.

Luckily, doctors can perform something called an organ transplant. This is when the doctors replace a failed or damaged organ with a healthier one.

WHAT IS AN ORGAN TRANSPLANT?

Sometimes organs can stop working and bur body can get very sick. When this sappens, some organs can be replaced with sealthy organs from someone else. This specified is called a transparent



What is an organ transplant?

Sometimes, organs can stop working and our body can get very sick. When this happens, some organs can be replaced with healthy organs from someone else. This operation is called a transplant.

Where do the organs come from?

Transplanted organs can come from people who are alive and donate a part of an organ or an organ that they don't need (we have two kidneys and only need one!) to someone else. Organs can also come from someone who has died. Their family can decide to share organs with people who need new ones to live.

However, to do this, doctors need to have donated organs – organs that are given from one person to another.

A person can sign up to a special register to say they want to donate their organs (and they can sign up to say they don't want to donate them too).

At the moment, there are around 4400 people on the transplant waiting list in Canada – this means they are waiting for an organ donation that could save their lives.



WHICH ORGANS MIGHT BE DONATED BY LIVING DONORS?

Which organs can be donated?

Talk through each of the mighty organs as the appear on the screen. Discuss with your class.

Which organs can be donated by living donors?

Explain that all the organs we have learned about today can be donated from one person to another.

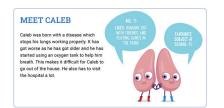
A person can agree to donate their organs after they die but there are also some organs that can be donated when a person is living.

Ask pupils which organs they think can be donated by living donors.

Further information on living organ donations

Remember the odd one out, bone marrow? If a living person wants to donate their bone marrow, there is a special donation register they can sign up to.

Part of someone's liver can also be donated – remember that the liver has an amazing ability for regrowth. Just a quarter of the liver can 'regrow' to its original size! This means that just a small part of a healthy liver could grow into a whole healthy liver for the person who receives the organ (the recipient). And the organ donor's liver will regrow as well.



Meet Caleb

Share the story of Caleb with pupils and ask them the following discussion questions:

- 1. What organ does Caleb need?
- 2. How might a donated organ improve Caleb's life? (Think about what he might be able to do that he couldn't do before.)
- 3. How do you think Caleb would feel to receive a lung transplant?

Note: Caleb (like all of the scenario cards) is a fictitious character. However, the experiences and symptoms described are true of real people awaiting an organ transplant.



Scenario Cards

Direct pupils to the Meet Your Mighty Organs Scenario Cards. You may wish to print out one copy of the cards per pair. Note that the scenarios get increasingly difficult (Selma is the easiest while Jay is the hardest).

Click to reveal each of the three questions pupils need to consider when discussing the scenario cards.

Once pupils have done the task, briefly discuss what they found out. Note that Selma needs corneas, Alex needs a kidney, Anna needs bone marrow and Jay needs a small intestine.

Explain to pupils that we need more organs to be donated. Sometimes people have to wait a really long time to receive an organ and some people don't ever get one.



Questions to think about

Ask pupils to discuss the question on the board, why might someone choose to donate their organs?

Possible answers might include:

- · to know they are helping other people,
- · because they don't need them anymore if they are no longer living,
- because they would want others to have donated organs if they or their loved ones needed an organ.

Why might some people not want to donate their organs?

Possible answers might include:

- · they don't know much about it and what is involved,
- they think they have to donate all of their organs (this is not true you can choose which ones you want to donate and which you don't),
- they think there are enough organs being donated already,
- they are scared of the idea (which might come from not knowing much about it),
- they think their religion doesn't support it (explain that most religions in Canada support the idea of organ donation).

Sometimes a person will have chosen to donate their organs but their family don't know about their choice and so their organs don't end up being donated. More than a third of adults have shared their organ donation choice with their family.

It is really important for people to continue to talk about their choice with those closest to them, so that their family can honour that choice.

WHAT IS THE LOGAN BOULET EFFECT?

Logan Boulet loved hockey. Logan and his Humboldt Bronco team were traveling to a playoff game on April 6, 2018 when the bus they were on was in a terrible crash. Logan and fifteen other people died, and thirteen more were seriously injured.



What is the Logan Boulet Effect?

In April 2018, Canadians rallied together in support of the victims, survivors and families of the tragic Humboldt Broncos bus crash that took place in Saskatchewan. Many students and teachers took part by placing hockey sticks in front of their classrooms and wearing their jerseys to school. In 2019, the family of Logan Boulet held the first annual national Green Shirt Day in honour of their son Logan and the Broncos family. They aimed to increase awareness about the importance of organ donation and honour Logan's precious gift.

Weeks before Logan Boulet was fatally injured in the Broncos bus crash, he had registered his decision to be an organ donor and discussed his decision with friends and family. The 21 year old defenseman went on to save six lives through his generous gifts. In the weeks that followed, Logan's story inspired more than 150,000 Canadians to become registered organ donors. This became known as the "Logan Boulet Effect". Today, the Boulet family continues to champion that spirit of giving through Green Shirt Day.

IT'S WHAT'S ON THE INSIDE THAT COUNTS.

So as we wrap up, isn't it great to be reminded that no matter what our age, hair colour, skin colour – no matter hor different our personalities or hobbies of holiefe might he.



Talk to your family about what you have learned

Explain that having a talk with family and friends about organ donation is important – it's a good way to make sure your family know what your choice is and that you know theirs!

Talking about organ donation helps people to honour one another's choices.

Give pupils the following resources to continue their learning at home:

Meet Your Mighty Organs: "Having The Talk At Home" Sheets

Meet Your Mighty Organs: Homework Sheet

Meet Your Mighty Organs: FAQs

Extension

Challenge pupils to take their learning one step further and use the "Create a Campaign" resource to spread the word about organ donation.

You can use the "Create a Campaign" PowerPoint with pupils to create something as simple as a poster or something more complex, like a school event to raise awareness around organ donation and the law change.

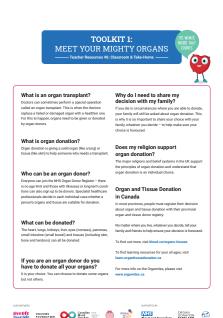


For Familes - Conversation Starters

How to talk about organ donation: The "Having The Talk at Home" Sheet

Children are curious and inquisitive. Asking questions is how they learn. If your child asks about organ donation or transplantation, answer questions as simply and honestly as you can. Take your time to gather information and answer honestly. Many families find it difficult to talk about organ donation together, but studies have shown us that young children can participate in these conversations and actually initiate and encourage important family discussions.

In Canada, family members are asked to make the decisions about organ donation at the end-of-life. Knowing how your family member felt and what they wanted can make these painful decisions simpler. Unfortunately, most Canadians have not had this conversation with their families. A family discussion in a safe, comfortable place can be the best way for everyone to share their ideas and choices and learn together. So, have the "Talk at Home" as a family. Together.



Teachers FAQs

Please note, if you wish to share the FAQs on this slide with families, simply print and distribute the All about organs FAQs.

What is an organ?

Organs are the working parts inside us. They each have a job to do and together make our body perform like a well-oiled machine.

What do my organs do inside my body?

Lungs - help us breathe

Heart - pumps our blood around our body

Liver - cleans our blood and helps to break down the food we eat

Kidney - cleans our blood and makes urine

Pancreas - helps our body digest our food

Intestine - absorbs the fuel and nutrients from our food

What is an organ transplant?

Sometimes, organs can stop working and our bodies get very sick. When this happens, some organs can be replaced with healthy organs from someone else. This operation is called a transplant.

Where do the organs come from?

Transplanted organs can come from people who are alive and donate a part of an organ or an organ that they don't need (we have two kidneys and only need one). Organs can also come from someone who has died. Their family can decide to share organs with people who need new ones to live.



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Teachers FAQs Continued

What else can be donated and transplanted?

Many tissues can be used to help others who have been injured or need operations such as corneas (parts of our eyes), bone and cartilage, skin and parts of the heart called valves. People can also donate blood that can be used for people who need blood transfusions.

Can anyone be an organ donor?

Anyone can volunteer to be an organ donor, but in order to actually donate organs, very specific circumstances must occur. The organs have to be perfect matches for the people in need of organs, and families must give permission for donation to happen. This process must happen in a hospital. Because of all this, organ donation is rare. But the more people who volunteer to be donors, the more likely it can happen.

Why would anyone want to be an organ donor?

Organ donors give the gift of life and health to others. Organ donation can also be a gift to the family left behind after someone has died. Families of organ donors often feel proud of the gift their loved one gave and comforted by the hope they left behind.

THANK YOU

