



A LITTLE JOURNEY TO DISCOVER MY SLEEP

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WHAT IS SLEEP?

Sleep is very important for all living things. When we snooze, our brain keeps working and goes through different stages of sleep. These stages all have a role to play to help us grow, stay healthy, and wake up ready to play and learn the next day.

SLEEP IN ANIMALS

All creatures need sleep – from penguins and giraffes to lions, cats, and even tiny fruit flies! Predators such as lions aren't afraid of being attacked and so nap for hours without worry, while prey, such as gazelles, take short, careful naps to stay safe. Some animals, like owls and bats sleep during the day, and dolphins sleep with half their brain at a time so they can keep swimming. Bears hibernate through winter, which is not quite the same as sleep, – and even then, when they wake up, they still need a nap!

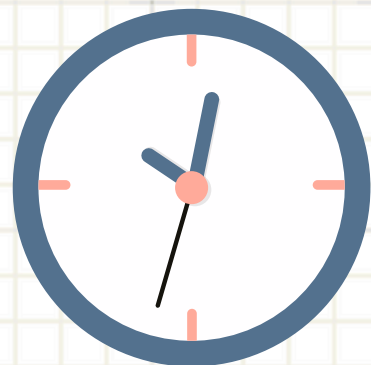
WHAT IS YOUR FAVOURITE ANIMAL?
TRY DRAWING IT WHILE IT IS SLEEPING:



We also learn about sleep from the time we are little. Families guide us with bedtime routines – like brushing our teeth, reading stories, or putting our cuddly toys to bed. Even what we do when we wake up is often part of our family's special routines.

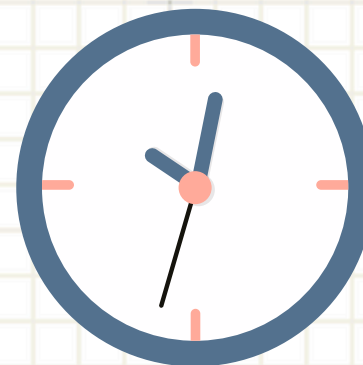
LET'S TAKE A LOOK AT YOUR SLEEP:

WHAT TIME DO YOU USUALLY GO TO BED?
INDICATE THE TIME ON THE CLOCK.



HOUR: _____ MINUTES: _____

WHAT TIME DO YOU WAKE UP?
INDICATE THE TIME ON THE CLOCK.



HOUR: _____ MINUTES: _____



WHERE DO YOU USUALLY SLEEP?

- In my own bedroom
- In a bedroom that I share with my siblings
- In a room that I share with my parents
- In the same bed as my siblings
- In the same bed as my mum and dad
- Or somewhere else?
- _____

WHAT DO YOU DO BEFORE BED?

- I brush my teeth
 - I put on my pyjamas I listen to music
 - I read a book on my own
 - I read a book with my mum or dad
 - I play on my bed
 - I watch television
 - I go to bed with my mobile phone or tablet I fall asleep on the sofa
 - Something else
- _____



DO YOU HAVE A CUDDLY TOY WHO SLEEPS WITH YOU? WHAT IS THEIR NAME?





HOW DOES SLEEP WORK?

When we fall asleep, the world around us seems to fade away, but our brains and bodies don't switch off.

BRAIN'S WAVES



Our brain is always working and producing tiny waves of energy that change depending on whether we're awake, dreaming or in deep sleep. The picture here shows you what those waves look like in the different stages of wake and sleep.

WAKE



HALF-SLEEP



LIGHT SLEEP



DEEP SLEEP



R.E.M. SLEEP



We divide sleep into two main types:

REM sleep. This stands for “Rapid Eye Movement” sleep. It is a very special period of sleep where we do most of our dreaming. During REM sleep:

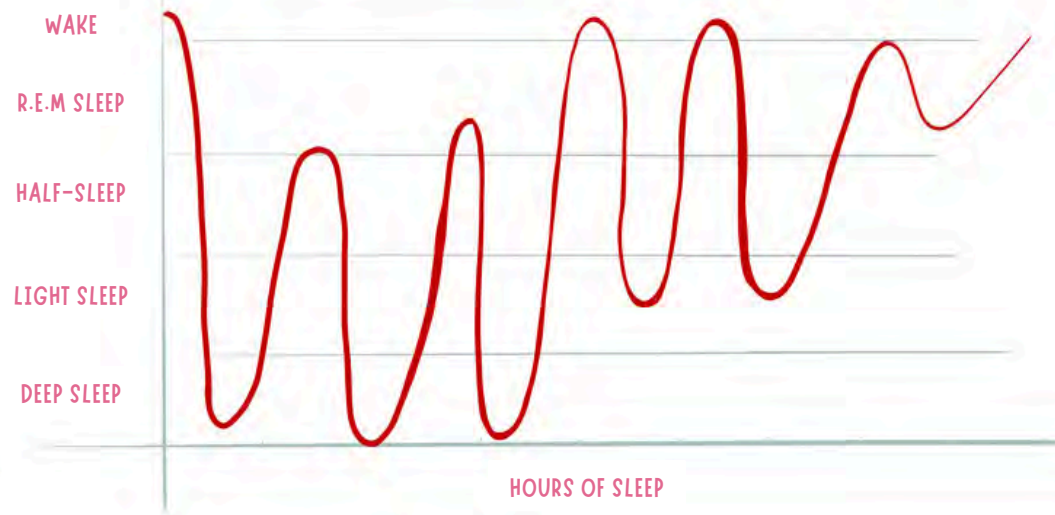
- our brains sparkle with activity that is a bit like being relaxed but awake;
- our muscles are kept nice and still so that we don't act out our dreams;
- our eyes dance our eyelids as we look out at the dream world.

During REM sleep, we have many colourful, exciting and strange dreams. We don't do all of our dreaming here, but dreams during non-REM sleep are generally more realistic.

Non-REM sleep. In Non-REM sleep, we move through drowsy half-sleep, light sleep, and deep sleep. As we get deeper into sleep, our brain waves slow down and get bigger. In our deepest sleep, we're resting so deeply that even loud noises don't wake us up.

HOW DOES SLEEP CHANGE AS WE SLEEP?

All night long these sleep stages take turns in 'sleep cycles', repeating again and again around 5 or 6 times. During the first half of the night, deep sleep tends to take up most of the space. As the night moves on, we tend to spend more time in REM sleep. As the different stages follow one another, we may wake up briefly, but often these wakings are so quick that we don't remember them in the morning!





DO CHILDREN SLEEP LIKE GROWN-UPS?



3-5 YEARS

10-13
HOURS OF
SLEEP



6-13 YEARS

9-11
HOURS OF
SLEEP



14-17 YEARS

8-10
HOURS OF
SLEEP



18-64 YEARS

7-9
HOURS OF
SLEEP



+64 YEARS

7-8
HOURS OF
SLEEP

Boys and girls need more sleep than grown ups!

Little babies might need between 14 and 17 hours of sleep. That's more than half the day!

Children, and even teenagers, spend more time than grown ups in deep sleep because it plays such an important role in growing up and staying healthy.








* WE ARE ALL DIFFERENT: OWLS AND LARKS

Have you ever wondered why we sleep at night and are awake during the day?

Inside our brain is a special kind of natural clock that follows the light of the sun and the darkness of the night. Scientists discovered this through experiments in which people were kept in rooms without windows or clocks and so had no way of knowing what time it was. In these experiments, even without knowing when it was day and when it was night, people still managed to go to sleep at night and be active during the day.

But how does our brain know when it's time to sleep?

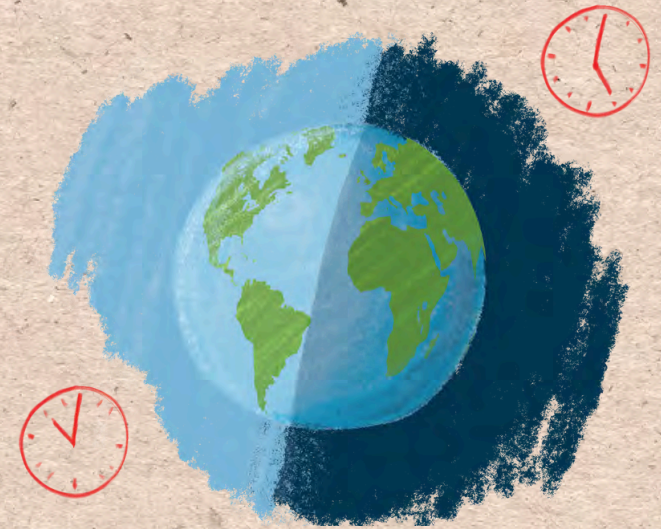
This special clock is called the 'suprachiasmatic nucleus'. It is a bit like an orchestra conductor, and sets the rhythms for how our bodies work across the day and the night. It takes its main signal from the light of the sun, which helps us to keep our wakefulness to the daytime and sleep to the night.



Our inner clock helps our bodies to sleep at night and to be active during the day. Most of us will know when its time for us to go to bed and when its time for us to be awake. But that's not the only way sleep works. In fact, as the day passes, our need for sleep builds up, like a battery that is running low, until bedtime arrives and it's time to recharge. If we get enough time to recharge, we wake feeling refreshed and full of energy for the day.

NOT EVERYONE'S CLOCKS RUN ON THE SAME TIMING!

We all have clocks that are set at slightly different times. What this means is that some of us are early risers full of morning energy! They are at their best earlier in the day and are called 'morning larks'. Others of us will be at our best towards the end of the day, awake and lively in the evening, and are called 'night owls'. Most of us tend to fall somewhere in between and are called intermediate types, which doesn't sound quite as poetic!



Most grown up (about 7 out of 10 people) are intermediate types, with the others (3 out of 10) divided between early birds and nightowls. The thing is that our sleep timings tend to change as we grow. Most younger children tend to be early birds, but as they change into teenagers they become night owls!



WHAT ABOUT YOU?

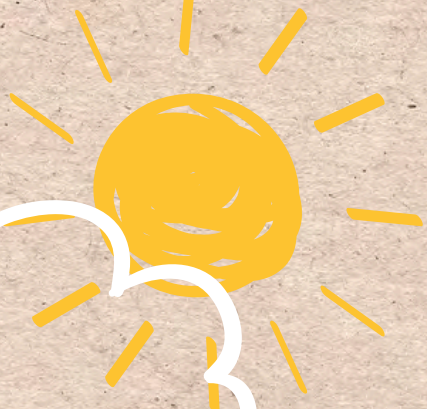
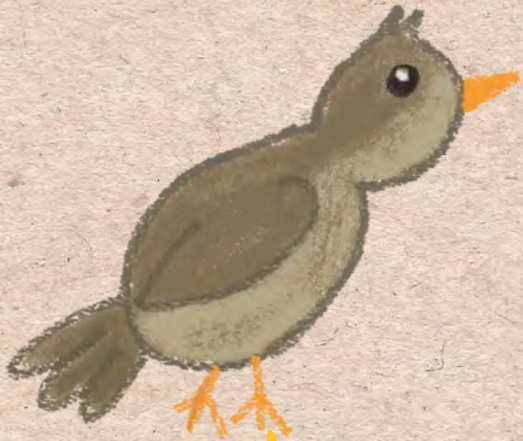
After dinner, are you usually tired?

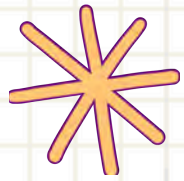
Do you wake up by yourself in the morning?

Do you feel more active in the morning, afternoon or evening?

Which type would you say you are?

- Lark
- Intermediate
- Howl





WHAT HAPPENS TO OUR BODY IF WE DON'T SLEEP?



We say that we 'fall' asleep because sleep is irresistible. We can't survive without sleep and, just like breathing, we can hold it off for a little while, but not for long.

Sleep is so important that we spend about a third of our lives asleep: can you imagine how much time we spend with our eyes closed? It's a lot! As we have seen, some animals sleep more and others less, but there is no living creature that can go without sleep. When we look at animals and how they live, sleeping doesn't seem like a very good idea! When an animal is asleep, it can't search for food, or for a mate, and it might be vulnerable to hungry predators! So sleep must be worth doing! It must serve a purpose... but what could it be?



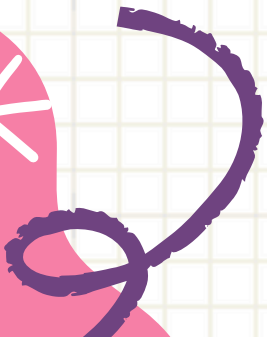
WAKE



WAKE



SLEEP





THE FUNCTIONS OF SLEEP



SLEEP HELPS OUR BRAINS STAY SQUEAKY CLEAN

Some scientists believe that one reason why we sleep is so that our brains can clean up. Each night, as we sleep, our brain gets washed by something called cerebrospinal fluid, that removes all the waste material that has built up during the day.



SLEEP HELPS US REMEMBER WHAT WE HAVE LEARNED DURING THE DAY

Another theory is that sleep help us to remember what we learn during the day. Sleep lets the brain sort out all the things we've learned during the day and throws away the bits and pieces we don't need and keeps the important bits! During sleep, the brainworks like a librarian, filing new memories in the right places and linking them to old ones, so that we remember more clearly. This is why it's a great idea to get a good nights sleep after school, so that all the important stuff that you've learned can be remembered!



Sleep helps you grow

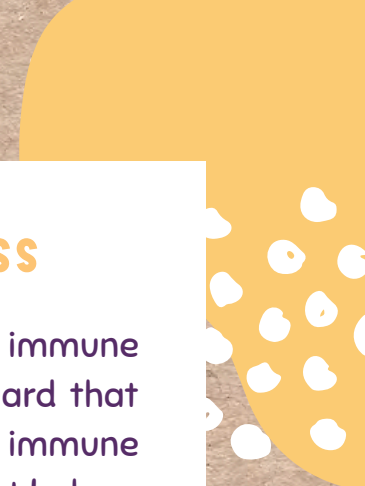
While we sleep, our bodies make special helpers called hormones. These hormones are made by small organs (the endocrine glands) and do lots of different things. For example, they help us to feel full at night and to feel hungry when we wake in the morning. Growth hormone (or somatotropin) is made during sleep, especially deep sleep, and is really important. It helps our bodies grow strong bones, muscles and cartilage. growth.

Sleep helps us fight off illness

Sleep also helps us to stay healthy by keeping our immune system strong. The immune system is the body's guard that protects us against infections and diseases. The immune system defends us by attacking anything that does not belong in our body, such as germs, bacteria, viruses and parasites. Getting enough good quality sleep strengthens the immune system. Without enough sleep, the guard grows weak and can't do his job properly, meaning that it's easier for us to get sick.

Sleep helps you to be creative

Have you ever had a "brilliant" idea after a good night's sleep? Ideas are formed in the brain by mixing knowledge and experiences, through memories and the senses. This continues during sleep, and dreams can mix ideas in surprising ways! We may wake in the morning and discover a brand new thought or an answer to a problem we had.





FUN FACTS: SLEEP RECORDS!

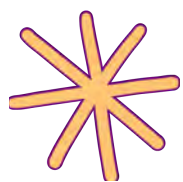


How many days can someone go without sleep? In 1964, 17-year-old Randy Gardner stayed awake for 11 days straight! This caused Randy lots of problems, such as nervousness, memory loss and difficulty concentrating and doing even simple maths. He was lucky, though, because he did not suffer any long-term problems, even though decades later he said he still had trouble sleeping from time to time. About 10 years later, his record was broken by Maureen Weston who went almost 19 days without sleep!

Several years ago, Guinness World Records stopped tracking this record because it is considered too dangerous. In fact, it has been many years since scientists have conducted experiments in which people were kept awake for such long periods of time. These stories remind us of how important sleep really is.

Just like going without sleep, sleeping too much is also not great for your health. The record for the longest sleep is held by a girl, Nicole Dielen, who slept for 64 days straight in 2012. This is because Nicole has a rare sleep problem called Kleine-Levin syndrome, nicknamed "sleeping beauty syndrome" due to its effects on sleep.





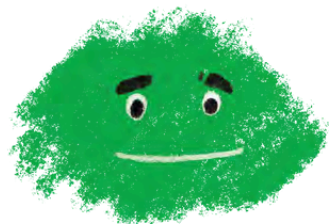
OUR EMOTIONS AND OUR SLEEP

If we sleep well, we feel good; if we sleep badly, we feel bad! Sleep connects us with our feelings. When we rest well, we're calmer, happier, and better at handling big emotions. Without enough sleep, we can feel cranky or sad, and it's harder to manage anger.

LET'S GET TO KNOW OUR EMOTIONS

Emotions are part of our bodies' response to what happens outside us (e.g. seeing our best friend) and inside us (e.g. having a scary thought). When we feel an emotion, lots of things happen in our body.

- We feel the emotion and give it meaning (e.g. I am happy, I am afraid).
- Our body reacts according to the emotion: anger makes us feel hot and tense, happiness makes our heart beat faster and our muscles more relaxed.
- Our behaviour changes: we smile or cry, jump for joy or slump our shoulders in sadness.





Emotions help us in lots of ways: they help us to let other people know what we feel and what we need. They also let us know when something is wrong.

Sometimes emotions show up in the evening, or when we think back about something that happened during the day that made us feel angry or sad. Sometimes this can get in the way of letting us fall asleep?



HAVE YOU EVER FELT THAT EMOTIONS HAVE GOT IN THE WAY OF SLEEP?

If you want to, you can write a bit about when this has happened to you here.



So, what can we do? First of all, it is important to understand that all feelings are okay. There are no wrong emotions, we need them all. When we fight our emotions, it can make things feel much more difficult to manage. When you experience unpleasant emotions, like anger, a helpful thing to do is to first try and name the emotion.

COLOUR YOUR EMOTIONS HOWEVER YOU LIKE!

Anger

Disgust

Sadness

Fear

Joy

Surprise

Embarrassment

Anxiety

Envy

Boredom

'BUT IF ALL EMOTIONS ARE RIGHT. WHY DID THE TEACHER PUNISH ME WHEN I WAS ANGRY WITH MY FRIEND WHO DIDN'T WANT TO LET ME PLAY WITH HIM. SO I PUSHED HIM IN THE PLAYGROUND?'

Anger shows up on its own. It is an automatic response to feeling excluded. However, the way we let anger tell us what to do depends on you, and it is because of the push that the teacher told us off. We can't change how we feel, but we can always get better at recognising our emotions and choosing to react in more helpful ways.

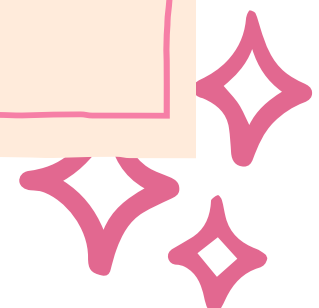
SLEEP AND EMOTIONS ARE FRIENDS

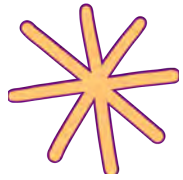
Sleep is really important for helping us manage our feelings. When we sleep well and enough, life is a bit easier, and our emotions aren't so noisy. When we sleep poorly and not enough, our emotions might seem bigger and louder. We might also notice that we can more easily feel nervous, or sad. We may get cross or cranky more easily or react in ways that we don't like. This is because the part of our brain that helps us manage our emotions works better when we get enough sleep.

SLEEP GIVES US THE STRENGTH TO MANAGE OUR FEELINGS IN THE BEST WAY

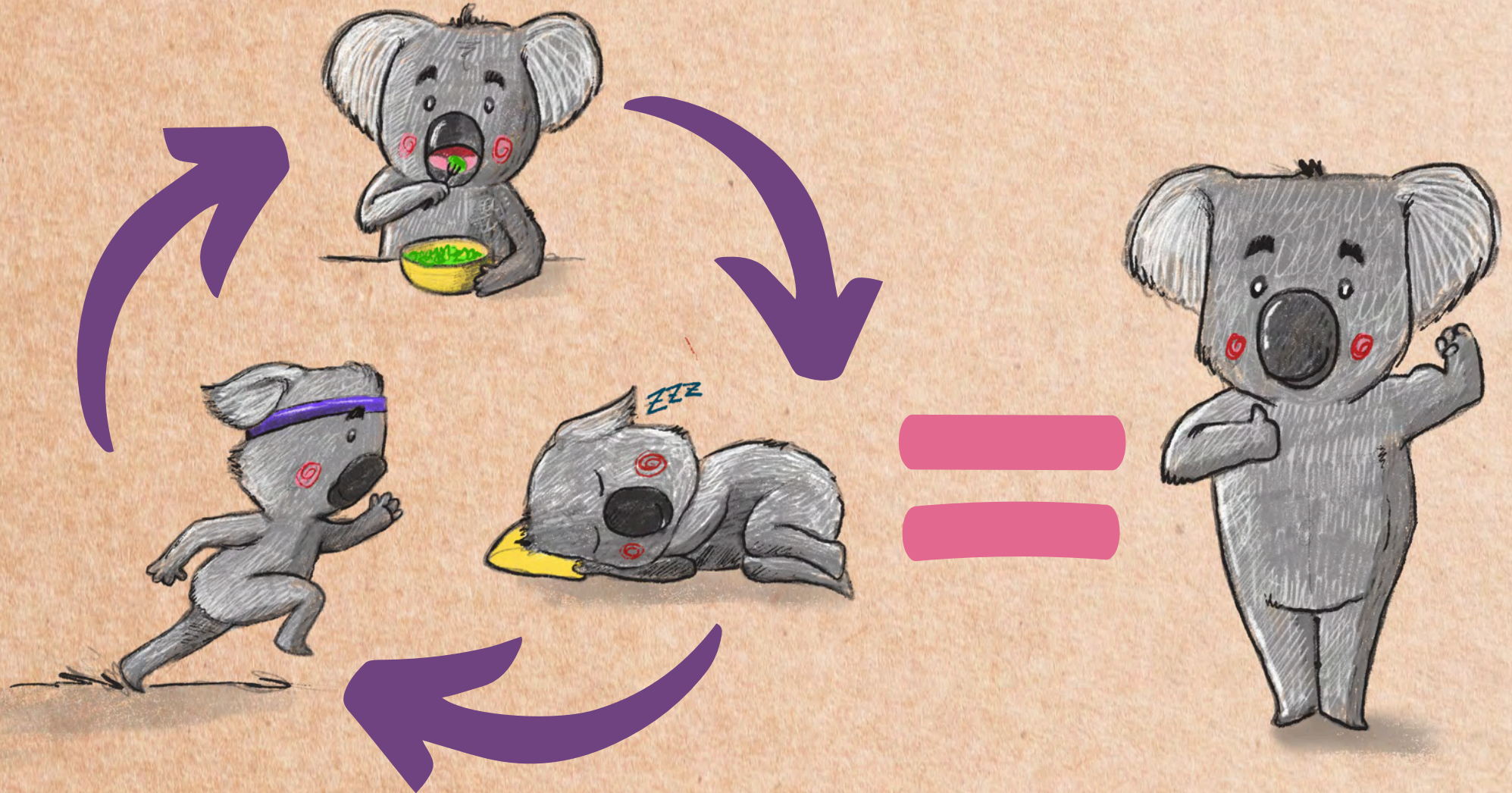


WHAT DO YOU DO WHEN YOU FEEL A BIG EMOTION?





NUTRITION, PHYSICAL ACTIVITY AND SLEEP





Sleep is such an important part of helping us grow, and keeping us happy and healthy. Sleeping enough and well lets our bodies recharge its batteries, and means that we can be at our best the next day.

Sleep also connects us with what we eat and how we move. Here's where having a healthy diet comes in.

WHAT DO YOU THINK A HEALTHY DIET MIGHT BE?



Our bodies are a bit like a machine, and food is a bit like the fuel that powers it. In order for the machine to run as it's supposed to, we need to have right kind of fuel. This means eating a healthy range of foods, which includes vitamins, carbohydrates, proteins, but also fats, which are an important source of energy. No single food contains all the nutrients our bodies need, which is why it is so important to eat lots of different kinds of healthy and nutritious foods.

If we make sure that our bodies get enough of the right kind of fuel, then it'll mean that we're all set to be at our best!

OUR ENERGY RESERVES.

Imagine this car is your body: what fuel would you put in the tank to give it energy?

Try drawing or writing them down.






BUT WHAT HAPPENS WHEN OUR FUEL RUNS LOW?


If your car runs low on fuel, it'll probably give you a warning light to let you know. Just like the car, our bodies can also send us clear signals when its energy reserves are running low. To follow a healthy diet, it's important to learn to listen to these signals. It can be helpful to share these signals with the grown ups who make your food!

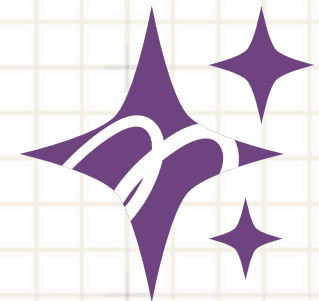
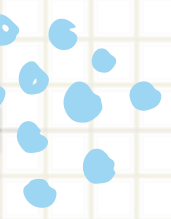
HUNGER SIGNALS



Can you think of some signals your body sends you when it feels hungry? Where do you feel them? Draw yourself here and try to show where you feel the hunger signals. If you can, write down what they are.

Another thing about food that helps our body work properly is eating regular meals. Have you ever wondered why we eat at around the same time every day? This lets our body get used to the rhythm, and let's it regulate the energy it uses during the day. It also adjusts the signals we mentioned earlier. In this way, the body can tell us when it's full and when it needs more energy.





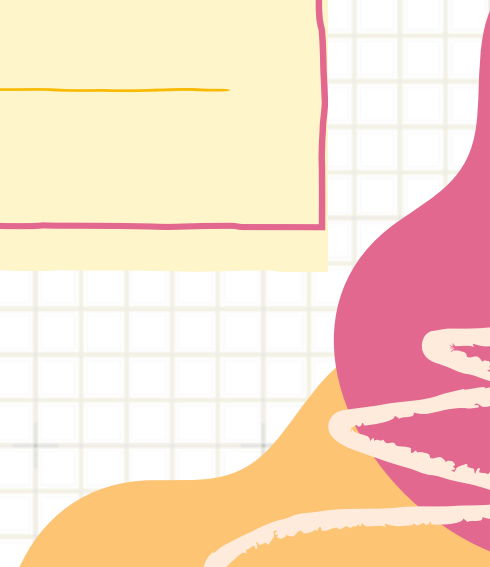
NUTRITION AND SLEEP ARE BEST FRIENDS

While we sleep, our body works to help us build up the energy we need to do things well the next day.

When we don't sleep well, our bodies need more energy to stay awake. This can mean that we want foods with lots of sugar. Eating a lot of sugar can make us feel fuelled-up quickly, but it doesn't last long and we'll soon feel tired again.

Did you know that what we eat also affects our sleep? Research has shown that if we eat sugary foods before going to bed, we might find it more difficult to fall asleep and sleep well. This is thought to be because sugar gives us lots of quick energy, and our bodies may find it harder to relax and fall asleep.

**HAVE YOU EVER FOUND IT DIFFICULT TO
SLEEP PEACEFULLY AFTER EATING MORE
THAN USUAL?**



DID YOU KNOW THAT EXERCISE AND SLEEP ARE ALSO REALLY GOOD FRIENDS?

Scientists have shown that physical activity is not just good for our bodies, it's also great for our sleep! According to researchers, staying active during the day (even just playing with friends, doing a few hours of sport a week or going for a walk) helps us sleep better and more peacefully, and makes us feel more relaxed. Similarly, a good night's sleep is a great help to those who play sports play even better next time. Even famous athletes say that good sleep is their secret weapon!

FUN FACTS

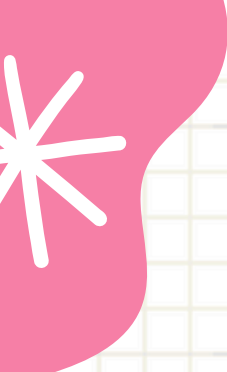
Did you know that many famous athletes have said that sleep is super important for how they perform? These include Roger Federer (one of the best tennis players), LeBron James (one of the best basketball players), Federica Pellegrini (an Olympic swimming champion) and Paola Egonu (an Italian volleyball star).

Each of them has their own ways of training for their sport, but they all say that taking care of sleep is a really important part of training.

When we sleep well, our body is better able to use the nutrients it needs to perform at its best.

When we sleep, our muscles are able to rest and recover. Sleep also helps us with coordination, making us more skilled and ready for doing our best at whatever we do.

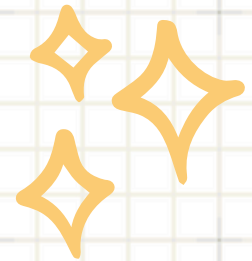




WHAT DOES SLEEPING WELL MEAN?

Try to think of a good night's sleep.

Would you like to draw it or describe it in words?



DRAW.

WRITE.





WHEN DO WE SLEEP WELL?

The six parts of healthy sleep



DURATION:

How much we sleep.

Not everyone needs the same amount of sleep. Children like you need to sleep much more than grown ups. This is because sleep is very important for growing, developing and learning, and doing your best in all the activities you do at your age.



CONTINUITY:

Having a nice, steady sleep, all night, without lots of wake-ups.

Good sleep continuity means falling asleep quickly, and then staying asleep all the way through the night until we get up. We all have trouble falling asleep and staying asleep sometimes, for example when we have a nasty cold. But when our sleeps isn't smooth and steady, it can mean we don't get enough of what we need to stay healthy and do our best during the day.



SATISFACTION:

The quality of our sleep.

What does it mean to be satisfied? Each of us is "satisfied" with sleep in different ways. For some, good quality sleep means waking up in a good mood, for others it means not waking up at all during the night. The easiest way to understand whether your sleep is of good quality is to ask yourself: did I enjoy my sleep last night?





TIMING:

When we go to sleep and when we wake up.

When we sleep is also really important. Just like playing, eating or doing our school work, there is a time when it's best for our bodies to sleep. For us humans, this time is at night. For children, the best time to sleep is a little earlier than for adults. This is also because they need more sleep. That's why children should go to bed earlier than adults. Sometimes it's difficult, because we want to stay up late and do other things, such as watching television, reading or playing. But we can do all these things during the day, when we have lots of energy.



DAYTIME FUNCTIONING:

How active we are during the day.

We have seen that sleeping well helps us to be more active during the day and to get lots of things done. After a good night's sleep, our batteries are recharged and we are ready to start again. When we have slept well, we wake up feeling refreshed and are able to do the things we need and enjoy with more energy.



SLEEP-RELATED BEHAVIOURS:

What we do in the evening before going to bed.

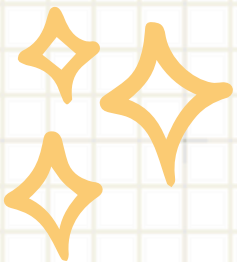
What we do before bed matters for our sleep. Sleep will come on its own, but we can help it along or push it away depending on what we do. Imagine sleep as a gate: the things we do in the evening can open the gate up, or push it closed. Quiet, relaxing activities open the gate up and sleep can take place easily. Busy or exciting things, like running around or staring at bright screens, can make it harder for the gate to open. Sleep also needs darkness, and so dimming the lights helps the sleep gate to swing open.



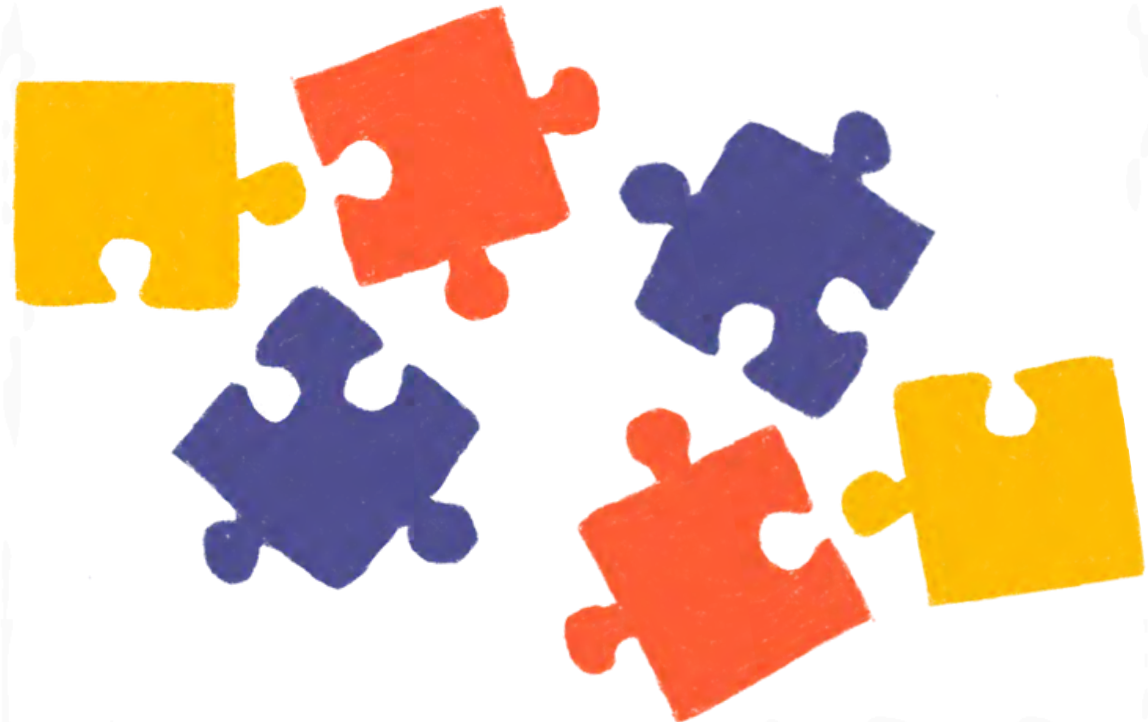
WE ARE ALL DIFFERENT!

Sleep is a little different for each of us because we're all unique! What matters is finding what works best for us. This might mean:

1. Choosing relaxing and calming things to do before bed.
2. Finding the right bedtime and wake-up time for our age, and getting the right amount of sleep.
3. Sleep is personal, but it always needs to be enough to help us grow, feel happy and stay healthy.



Here are the 6 pieces that make up the sleep health puzzle! Give each piece, in any order you like, the name of a dimension of sleep health to complete the picture!





SLEEP EXPERT CERTIFICATE

THE FOLLOWING AWARD GOES TO:

FOR SUCCESSFULLY COMPLETING THE COURSE



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