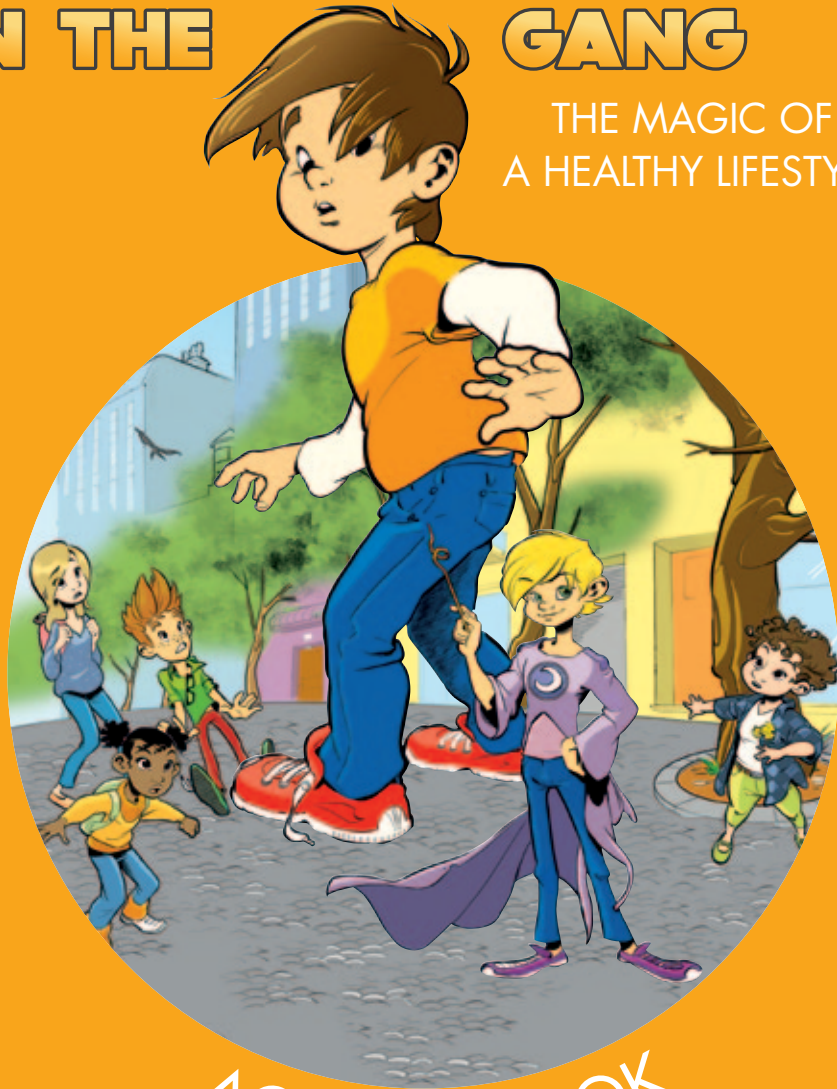


AGE 9-11

A GIANT

IN THE GANG

THE MAGIC OF
A HEALTHY LIFESTYLE



ACTIVITY BOOK

STUDENT

FUNDACIÓN **MAPFRE**

 **VIVIR
EN
SALUD**

sm

A GIANT

IN THE GANG

THE MAGIC OF
A HEALTHY LIFESTYLE





These materials were developed in collaboration with the Association of Personal Trainers of Madrid (AMEP).

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1. WELCOME!

Hello, friends! We're María, Vanesa, Álex, Lucía and Juan and we'd like to invite you to share in our adventure.

Follow us as we discover all the secrets to leading a healthy lifestyle with the help of our friend Lunatus the magician. Do you fancy coming along?



NAME:

SURNAMES:

CLASS:

SCHOOL:

2. WHAT ARE WE GOING TO LEARN FROM THIS ACTIVITY BOOK?

Together, we're going to discover a lot of secrets through this activity book.

We'll find out the benefits of being physically active and we'll learn how to calculate the best exercise intensity for us.

We'll discover the secrets to staying hydrated and learn how to prepare our own sports drink.

We'll take a tour round the world as we learn about traditional recipes from different countries.

And finally, we'll go over the importance of personal hygiene in sports.

3. What about my family?



You can share everything you learn here with your brothers, sisters, parents, grandparents, other family members, and friends.

They'll thank you for it, **because we all have to look after our health, no matter how old we are!**

After all, you only get one body, and you have to take care of it in order to enjoy a long and happy life.

So if you're ready to discover new secrets and have some fun, turn the page to get started on your adventure through the world of healthy living!



4.1 Get moving!

People are always telling us that we have to be physically active, play sport and get exercise. It's good for us to stay physically active, but do you know why? Let's take a look at the benefits of physical activity:



- Your heart and lungs will grow larger, stronger and, ultimately, healthier.



- Physical activity will help you to maintain a balance between what you eat and the energy you use, helping you to stay at a healthy weight for your age and body type.



- Your bones will grow stronger and healthier.



- As strange as it sounds, it will help you do a better job on your homework and exams.



- You'll be able to concentrate better.



- You'll find it easier to make friends.



- You'll have a better body image and your self-esteem will improve.

Is there a particular sportsman or sportswoman you'd like to be like when you grow up? Staying physically active when you're young will help you be like them.



I do a lot of physical activity: I take my dog for a walk every day. Is that enough?

No! Taking your dog for a walk is a good thing to do, and it has health benefits, but experts say that, in addition to everyday activities:

1. Children and adolescents need to do at least one hour (or up to several hours) of moderately intense physical activity per day, every day or most days of the week.
2. At least twice a week, the physical activity should include exercises that make bones and muscles healthier (strength and flexibility exercises).



But it only counts if...

- You start to feel warm soon after you start.
- You have a little trouble holding a conversation while you're doing the activity.
- Your breathing quickens.
- Your heart beats faster.

This doesn't mean that you have to do a full hour of continuous exercise, but by the end of the day you should have done a total of about an hour of physical activity.

Examples of good activities to do: riding your bike fast, running, playing basketball, playing football, skipping rope, swimming, stretching, playing with medicine balls and playing on wall bars.

ACTIVITY SHEET 1



Calculating your heart rate

Your heart rate is the number of times your heart beats in one minute. At rest, a heart usually beats between 50 and 100 times per minute. Your maximum heart rate (HR_{max}) refers to the maximum number of times your heart can beat in one minute. Theoretically, it can be calculated by subtracting your age in years from the number 220. For example, $220 - (\text{minus}) 12 \text{ years} = 208 \text{ beats } (HR_{max})$.

Exercise is very important, but it has to be done properly and at the right intensity level. You should always keep these two important ideas in mind:

If you exercise at too low an intensity level (reaching less than 55% of your maximum heart rate), you will not obtain the benefits you expect because activity done below this level does not involve the resistance work necessary for people your age.

If you exercise at too high an intensity level (reaching more than 85% of your maximum heart rate), you may be putting your health at risk.

ACTIVITY

Using the numbers you worked out in class (your maximum heart rate), complete the activities below. If you don't remember your maximum heart rate, calculate it again. We're sure you know how!

85% of my HR_{max} :

55% of my HR_{max} :



On the graph on the next page, colour in the heartbeats per minute that lie between 55% and 85% of your maximum heart rate.

Calculate how many times your heart beats per minute (your heart rate) after doing each of the suggested activities. Use a dot to mark your heart rate in the column corresponding to each activity. Check to see if the dots are within the area that you coloured in.

If the dots are outside the area you coloured in, you have to adjust your exercise intensity in order to obtain the benefits we learnt about in this chapter!

Heartbeats per minute

	A	B	C	D
220				
210				
200				
190				
180				
170				
160				
150				
140				
130				
120				
110				
100				
90				
80				
70				
60				
50				

A Run for 5 minutes straight.

B Walk up the stairs at home.

C Walk slowly for 10 minutes.

D Walk quickly for 4 minutes.



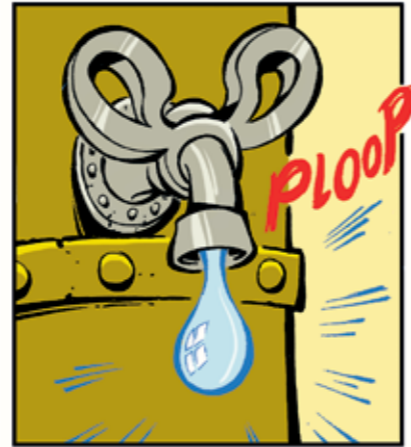
5. EATING RIGHT (I)

5.1 Be water, my friend

Did you know that life on Earth began millions of years ago in the water? And did you know that water covers three quarters of the surface of our planet? That's why the Earth is called the blue planet.

Human beings, like most living things, are also made up of water. 75% of the body weight of a newborn is made up of water, and in adults, water makes up half of our weight. On the outside we're flesh and bone, but on the inside . . . we're water!

Look at the table below to compare the percentages of water in different living things.



FUN FACT



A camel can drink up to 80 litres of water at a time and go for 10 days without drinking again. It is the animal with the greatest capacity for storing water.

Human beings can survive for weeks without food, but only three days without water. This is because **water is absolutely necessary for life. Staying hydrated is a fundamental part of maintaining a healthy lifestyle.**



Good hydration depends on the liquids your body takes in and eliminates. We stay hydrated through what we drink and through the water contained in food. We eliminate water through urine, faeces and when we breathe and sweat.

At your age, boys should consume about 2.5 litres of water a day, and girls should consume 2 litres a day, both through drinking (8-10 glasses of water) and through the water contained in food (in fruits and vegetables, for example).

When you do high-intensity exercise or when it is very hot, you may need to take in as much as twice as much as the recommended daily intake.



What is the best drink to keep you hydrated?

Water is undoubtedly the best thing to drink to stay hydrated. There should be a jug or bottle of water on the table during all meals of the day. Don't forget that soup, milk, all-natural fruit juice with no added sugar, infusions, etc. are all good choices for staying hydrated.

Hydration tips for children and adolescents

- Don't wait until you're thirsty to have a drink. If you're thirsty it means you're already a bit dehydrated.
- You should drink between meals as well as during them.
- Choose water over other types of drinks.
- Eat lots of fruits and vegetables: they're rich in vitamins and contain lots of water.
- If you do exercise or it's very hot out, you have to drink more to stay hydrated.

ACTIVITY SHEET 2



What is a sports drink, really?

You've probably heard about **sports drinks**, but do you know what they are?

These drinks are specially designed to replenish the water, electrolytes and other substances that are lost during exercise. They are more complete than water and they don't contain too much sugar. But they should not be used as a substitute for water.

Electrolytes are absolutely essential to the human body due to the many functions they serve. For example, calcium, phosphorous and fluoride are good for bone health.

The concentration of electrolytes in sports drinks is similar to that of blood plasma; this is why they are absorbed into the body very quickly and help you stay hydrated before, during and after exercise.

ACTIVITY

Here is a recipe for making your own sports drink. It's actually a simple formula that people have been following for years and years. Your parents and grandparents are probably familiar with it.

Ingredients



- Water (1 litre)

- Lemons (1 or 2)

- Sugar (3 tablespoons)

- Salt (1 teaspoon)

- Bicarbonate of soda (1 teaspoon), optional

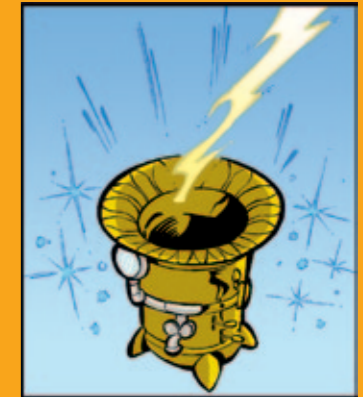






Preparation

- Ask an adult for help to boil one litre of water.
- Add the juice of one or two lemons to the water.
- Add two tablespoons of sugar.
- Add one teaspoon of salt.
- Add one teaspoon of bicarbonate of soda.
- Stir the mixture well.
- Let the drink sit for about an hour before drinking it.



Well, you've got your drink! Now you just have to give it a name and make a label to stick on your bottle. Remember to bring it with you everywhere: to class, to physical education, while you do your homework, and other places to help you to consume the recommended daily amount of water.





6.1 Cooking around the world

Where would you be if you had *lebkuchen* at Christmas? How about a *nacatamal*? And *lutefisk*? Have you heard of lamb tagine? How about 北京烤鴨 (Peking duck)?



These dishes are just a few examples of the great variety of foods that exist round the world. And most of them can now be found here as well, just like you can find thousands of Spanish restaurants in other parts of the world.

Globalization (the tendency of markets and companies to expand, achieving a global dimension that goes beyond national borders), international travel, people from other countries coming to Spain to live and Spanish people moving to other countries are all factors that have contributed to a much wider variety of foods being available here, and have also enriched our cultures.

Because a country's cuisine is also part of its cultural heritage. Even before birth, children get a first taste of their culture through the food their mothers eat, and after they are born, through their mothers' milk.

All countries have festivities that bring family and friends together around the table. Let's look at a few examples:

Eid al-Adha, also called the **Feast of the Sacrifice**, is one of the most important holidays in the lunar Islamic calendar. On this day, people come together for a feast of lamb.

Thanksgiving is celebrated on the fourth Thursday of November in the United States and on the second Monday of October in Canada. On this day, people eat turkey, which is often stuffed with corn and sage.

On **New Year's Eve**, people in many countries celebrate the coming new year by eating twelve grapes, one for each chime of the clock as it strikes midnight.

Traditional dishes of a country are based on ingredients that are available locally. Let's have a look at a few examples of foods from countries on different continents:

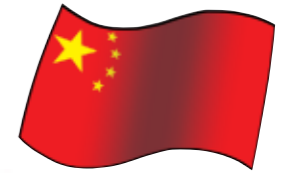
Spain: olive oil, garlic, onions.



Norway: smoked salmon, trout, herring.



China: seaweed, bamboo, soya sauce, ginger, rice.



Morocco: mint, olives, lamb, spices such as cinnamon and cumin.



Russia: mushrooms, fish, wheat.



Ecuador: plantains, peppers, fish, potatoes, corn.



Senegal: fish, rice, peanuts, spices.



Australia: shellfish, beef, chicken, vegetables.



Brazil: beans, rice, beef, fruit juice.



ACTIVITY SHEET 3



An unusual recipe

Are you a good detective? Do you fancy exploring different corners of the world and learning about other cultures?

Many of the important holidays celebrated in different parts of the world revolve around food or one specific, special dish.

ACTIVITY

Do some research on a holiday, celebrated anywhere in the world, in which people eat a traditional dish or food, and explain what you think is interesting about it: for example, when the holiday takes place, how long it has been around, and why it is celebrated.

Then write the recipe for the dish, using the model on the next page. You can include more information if you'd like. Use another piece of paper if you need to.

You're sure to discover some really, really interesting stuff that will surprise your family and friends!



Spanish potato omelette



Chinese rice dish



Spaghetti



Recipe

COUNTRY: _____

CAPITAL: _____

FLAG: _____

TOWN OR CITY: _____

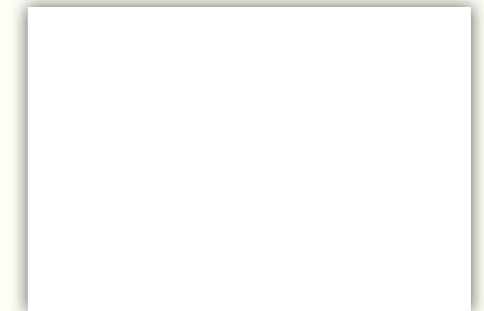
CURRENCY: _____

NAME OF DISH: _____

COST: _____



Your chef's photo or drawing



Drawing of the dish

INGREDIENTS: _____

EQUIPMENT NEEDED: _____

DIRECTIONS: _____

7.1 Hygiene in sports

Do you know where the word 'hygiene' comes from?

This is a hard one! It comes from a Greek goddess named **Hygieia, the goddess of health and illness prevention**. Health and hygiene go hand in hand.

The ancient Romans spent a good part of the day getting squeaky clean in baths they called 'thermae'. And in ancient times, people in the Near East would go to 'Turkish baths'.

However, in the Middle Ages (about 1,000 years ago), people started being less concerned about their hygiene. You've probably heard this famous declaration by Queen Isabel the Catholic:

'I shall not change my shirt until we have reconquered Granada'.

However it's just a myth . . . as you can imagine! Here's another example from France, in 1770. According to historians,

King Louis XVI only bathed when his doctor told him to!

Fortunately, nowadays we all try to look after our hygiene, since we know that it's closely tied to our health. Below you'll find some hygiene tips related to exercise and sports. Hygiene in sports isn't just about cleanliness! It also involves adopting habits that will help you to avoid problems when exercising.

Before you exercise

- Get your clothing and footwear ready: choose appropriate clothes and shoes based on the activity you're planning on doing, the time of year and the weather.



- Always warm up in order to get your body ready for physical activity and avoid injuries.



- Pack a toilet kit with the things you'll need after you exercise: a towel, sandals, soap, a comb, etc.
- If you're going to be outside (for example, climbing or hiking), make sure you always tell someone where you're going and when you expect to be back.

While you exercise

- Exercise at the intensity level that's right for you.
- Stay hydrated while you exercise. Remember that you shouldn't wait until you're thirsty to drink. If you're thirsty it means that you're a bit dehydrated already.



After you exercise

- Avoid stopping suddenly if you've been doing vigorous exercise. Cool down for a few minutes with a gentle activity such as walking in order to recover properly, return your heart rate to normal and avoid injuries.
- Don't forget to rehydrate after you exercise.
- Stretch the muscles that you have used during your workout.
- Take a shower (use soap!), and take your time. Wear sandals and don't share your towel with anyone else.
- Dry off thoroughly before you get dressed. It is especially important that you dry your feet carefully, as fungi and bacteria thrive in damp environments.
- Change into clean clothes and different footwear if you've used special shoes during your workout.

ACTIVITY SHEET 4



Personalised soap

Now that you've seen how important hygiene is, how about doing a little hands-on activity? It can be done at home with an adult or, even better, with your whole family. Let's learn how to make personalised soap to put in the toilet kit you bring to school.

What you'll need

- Glycerine soap.
- Soap dyes (you'll find these in hardware shops, perfumeries or speciality shops). You can also use botanicals such as rose petals or camomile.
- Moulds of the shapes you want your soap to be. Ice cube trays will do.
- Essential oils (for example eucalyptus, lavender, lemon, etc.). If you don't have these, you can use a cologne or perfume.
- A microwave.
- A container to use to heat the soap in the microwave and a mixing utensil (a wooden spoon).
- Vegetable shortening (which you will apply to the mould so that the soap doesn't stick to it). You can also use baby oil or body oil.
- You may also want to add flower petals.



Steps

1

Gather the materials with the help of an adult. There is probably a shop in your neighbourhood that carries what you need. Decide what essential oils you'd like to have in your soap. There are quite a lot to choose from!

2

At home, again with the help of an adult, cut the glycerine soap into small pieces and put them into the container you're going to use to heat them. If you have a small hammer, you can use this to break the soap into pieces. But be very careful!

3

Cover the container and put it in the microwave. Heat it 30 seconds at a time until the soap has melted completely. Take care not to overheat it. Heat it only until all the soap has melted.

4

Add some essential oils (a teaspoon) and dye to the melted soap. If you are going to add flower petals or aromatic leaves, this is the time to do so.

5

Mix it gently with the proper utensil, such as a wooden spoon or a mixing stick.

6

Before pouring the soap into the moulds, lightly grease or oil the moulds so that the soap doesn't stick to them and break when you go to remove it.

7

Very carefully, pour the soap into the prepared moulds and let it cool until it is firm.

8

Once the soap has cooled completely, remove it from the moulds and . . . voila! Your personalised soap is ready to be used.

8. LET'S REVISE

Draw an arrow to match each sentence with its missing word to complete all the sentences. First you'll have to put the syllables of the mystery words in order. To do so, read each sentence to see if you know the missing word. You'll see how much you've learnt. Good luck!

We should do strength and exercises at least twice a week.

Sports drinks are designed to quickly replenish the water, and other substances you lose when you exercise.

You must take care to dry your feet thoroughly, because thrive in a damp environment.

Water is essential to life, and that's why it is fundamental to stay

A country's cuisine is a fundamental part of its heritage.

The word comes from the name of the Greek goddess Hygieia, goddess of health and illness prevention.



TE - RIA - BAC

LYTES - E - TRO - LEC

DRA - TED - HY

GIENE - HY

LI - TY - FLE - BI - XI

AL - TUR - CUL



THE TEN RULES FOR HEALTHY LIVING



1 Eat **five meals a day** and remember that you should sit down to eat breakfast, lunch and dinner.

2 Try to drink **8 to 10 glasses of water a day**. Choose water and fruit juice instead of fizzy drinks.

3 Eat **different types of food**, like meat, fruit, vegetables, pasta and fish. A varied diet is the key to eating right.

4 Do **one hour of physical activity** every day, and **strength and flexibility** exercises two or three times a week.

5 Take advantage of your **free time to do some exercise** with your family and friends.

6 Spend **less than two hours a day** on **computer games, the Internet and TV**.

7 **Protect your back**. Sit upright and carry your school bag properly.

8 Go to bed early and try to get **8 to 10 hours** of sleep.

9 Remember to **shower once a day, brush your teeth and wash your hand** before eating and after going to the toilet.

10 Make **your health** and that of your family and friends a priority so that you'll all stay **fit and strong**.



10. VOCABULARY

Basal metabolic rate (BMR): The minimum amount of energy required to maintain the body's vital functions when at rest.

Body mass index (BMI): The formula used to determine a person's weight-size ratio. It is calculated by dividing a person's weight (in kg) by their height squared. $BMI = \text{weight}/\text{height}^2$.

Coronal (or frontal) plane: An imaginary plane that divides the body vertically into two equal but asymmetrical halves, anterior and posterior.

Eating right: Having a varied, balanced diet that provides all the nutrients a child needs to grow and develop properly.

Energy balance: The amount of calories a person takes in every day in relation to the calories they burn.

Exercise: A planned and intentional movement designed to help a person stay physically fit and healthy. Examples are activities like taking a brisk walk, doing aerobics, cycling, and even active hobbies like gardening and dancing.

Good posture: Learning to position the body, move and lift objects in such a way that as little strain as possible is put on the back.

Kilocalorie (kcal): Normally shortened to 'calorie'. The unit traditionally used to measure the energy foods contain, or their calorie content.

Kyphosis: Excessive outward curvature (45° or more) of the spine which causes the spine to lose all or part of its ability to curve inwards.

Lordosis: Excessive curvature of the cervical or lumbar region of the spine.

Nutrients: Components of food. They are grouped into carbohydrates, lipids (or fats), proteins, vitamins and minerals.

Nutrition: The scientific study of the different processes involved in taking in, transforming and using foods in order to carry out the body's vital functions.

Obesity: An excessive amount of body fat that is often associated with other harmful diseases such as diabetes and heart disease.

Overpronated gait: The tendency of the ankles to lean inwards, resulting in the foot resting mostly on its innermost area (the big toe).

Physical activity: Any voluntary movement of the body that uses up energy. Some of the most common everyday physical activities are picking up school bags, skateboarding, playing catch, helping with chores at home and doing the shopping.

Physical fitness (physical condition): The ability or quality (resistance, flexibility, strength) needed to perform physical activities.

Sagittal plane: An imaginary plane that divides the body vertically into two symmetrical halves, left and right.

Scoliosis: Excessive lateral curvature of the spine.

Sedentary lifestyle: When someone is not physically active enough to stay healthy. Sedentary people are more prone to diseases than active people.

Serving: A standard portion of food.

Sport: Competitive physical activity regulated by a set of rules.

Supinated gait: The tendency of the ankles to lean outwards, resulting in the foot resting mostly on its outermost area (the little toe).

Transverse (or horizontal) plane: An imaginary plane that divides the body into two halves, superior and inferior.

11. ANSWER KEY



We should do strength and **FLEXIBILITY** (LI - TY - FLE - BI - XI) exercises at least twice a week. Sports drinks are designed to quickly replenish the water, **ELECTROLYTES** (LYTES - E - TRO - LEC) and other substances you lose when you exercise. You must take care to dry your feet thoroughly, because **BACTERIA** (TE - RIA - BAC) thrive in a damp environment. Water is essential to life, and that's why it is fundamental to stay **HYDRATED** (DRA - TED - HY). A country's cuisine is a fundamental part of its **CULTURAL** (AL - TUR - CUL) heritage. The word **HYGIENE** (GIENE - HY) comes from the name of the Greek goddess Hygieia, goddess of health and illness prevention.

1. Let's revise (page 22):

If you've read *A giant in the gang*, you've met Professor Lunatus, Alex and their friends. Now they're going to keep you company as you learn some good habits to help you grow up strong and healthy. They also have some fun activities for you to do.

While you are having fun reading, it is important that you think about what foods make up a healthy diet, how often you should exercise, and what healthy habits should be part of your daily life.

This activity book is part of FUNDACIÓN MAPFRE's VIVIR EN SALUD project, which creates educational materials aimed at parents, children and adolescents, in addition to professionals in fields such as education and health care. VIVIR EN SALUD is for everyone and involves us all.

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