



# SCIENCE: Keeping healthy

Project for 11-22 May 2020

# OUR GOALS

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## HEALTHY DIET

Knowing the difference between healthy and unhealthy food and drink

Understanding the need for a balanced diet



## EXERCISE

Why we need exercise

The different types of exercise

Understanding the need for an active lifestyle



## MINDFULNESS

Sleep is important

Negative thoughts can affect your wellbeing

Relaxing, meditating and talking through problems can help you deal with stressful situations

# 01

## HEALTHY DIET

Knowing the difference between healthy and  
unhealthy food and drink

Understanding the need for a balanced diet



# BALANCED DIET

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Eating a healthy, balanced diet is an important part of maintaining good health.

It can help you feel your best.

This means eating a wide variety of foods in the right proportions.

It is also about consuming the right amount of food and drink to achieve and maintain a healthy body weight.

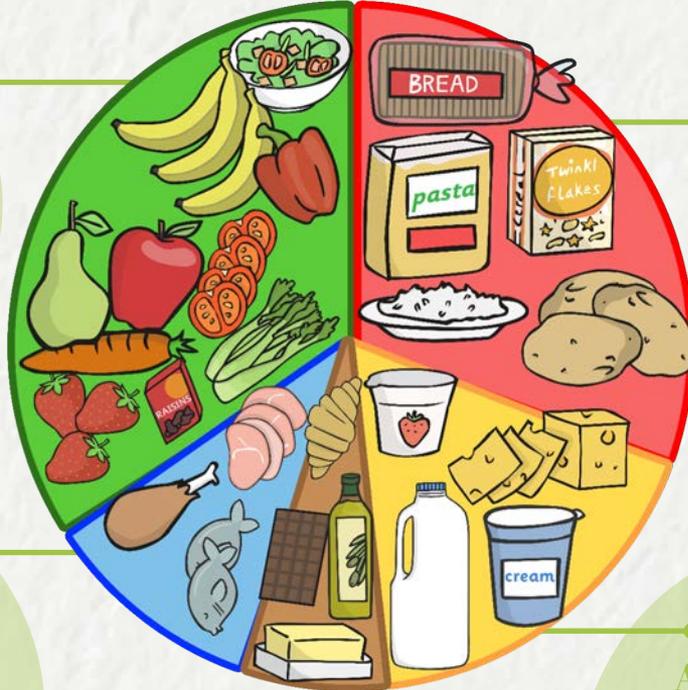
Let's look at the different types of food.



# EATWELL PLATE

## FRUIT AND VEG

These are good sources of vitamins, minerals and fibre. Aim to eat 5 portions a day. Choose from fresh, frozen, tinned, dried or juiced. Limit fruit juice/smoothies to 150ml per day in total.



## CARBOHYDRATES

Starchy foods such as potatoes, bread, rice, pasta and cereals should make up just over a third of the food you eat. These are important for giving us energy. Choose high fibre, wholegrain varieties such as wholewheat pasta and brown rice, or leave the skin on potatoes.

## PROTEINS

Proteins such as beans, pulses, fish, eggs and meat are very important for helping us grow and build muscles. Beans and pulses are a good alternative to meat as they contain less fat and are higher in fibre and protein. Try to eat 2 portions of fish a week and try to reduce intake of red and processed meat.

## DAIRY AND ALTERNATIVES

These are a source of calcium which is important for strong teeth and bones. Choose low fat and lower sugar options.

## OILS AND SPREADS

Choose unsaturated oils and spreads and eat in small amounts.

# ALSO REMEMBER

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## WATER

Drink plenty of water every day (6-8 glasses).

Energy 1046kJ 250kcal	Fat 3.0g LOW	Saturates 1.3g LOW	Sugars 34g HIGH	Salt 0.9g MED
13%	4%	7%	38%	15%

## PACKAGED FOOD

Check the label on packaged foods.

Red is high, green is okay.

# FOOD JOURNAL

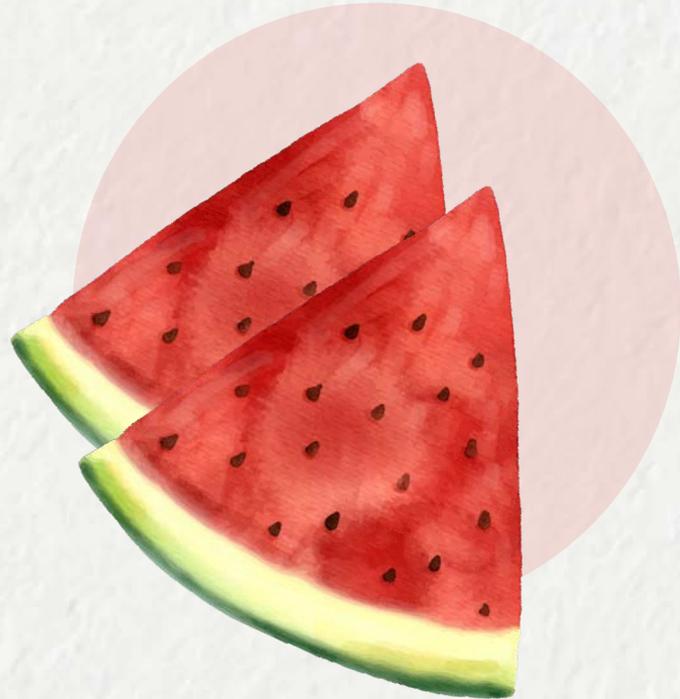
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**Your first task is to complete a food journal.**

Write down everything you eat and drink each day for one week.

Don't change what you are eating – just make a record of it.

There is a template on the next slide, but you don't have to use it. (The following slide contains my completed a food journal for last week as an example.)



# MY FOOD JOURNAL



	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
BREAKFAST							
LUNCH							
DINNER							
SNACKS							
DRINKS							



# YOUR TASKS

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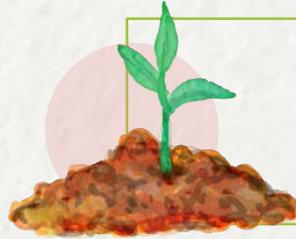
## DO

Try to stick to the plan for one week. Take photos of any cooking you do and send them in to us.



## MAKE

Create a balanced meal plan for your family (with your parents/carers) using the Eatwell plate as a guide.



## WATCH

Watch the video on BBC Bitesize ([LINK ONE](#)) and have a go at sorting the food into the correct groups.

## EXTENSION

Is there a food you love that you know is not healthy?

Research a healthier alternative to your 'guilty pleasure' food.

(E.g. Recreate Morley's chicken and chips.)

# 02

## EXERCISE

Why we need exercise

The different types of exercise

Understanding the need for an active lifestyle



# WHY WE EXERCISE

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## PROS

Reduces the risk of illness

Helps our bones and muscles to be strong

Makes you feel good about yourself

Improves your energy and stamina

## CONS

Potential for injury if we exercise too much, incorrectly or unsafely

# MIXING IT UP

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## ENDURANCE (AEROBIC)

Aerobic exercise (also known as 'cardio') means 'with oxygen'.

Your breathing and heart rate increases during aerobic activities.

Examples include: brisk walking, swimming, running or cycling.

## BALANCE

Exercises that strengthens the muscles and helps keep you upright, including your legs and core.

Examples includes: balancing on one leg, yoga, Tai Chi and tip-toeing.

## STRENGTH

Strong muscles help make everyday activities feel easier, such as getting up from a chair, climbing stairs and carrying groceries.

Examples includes body weight exercises: sit ups, bridges, crunches.

## FLEXIBILITY

The range of motion in your joints and the mobility of your muscles or ability of your joints to move freely.

Examples includes: stretching, yoga, and gymnastics.

# OUR BODIES AND EXERCISE

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## ENDURANCE, STRENGTH, BALANCE, FLEXIBILITY

It is important to aim for a balance of each of the four types of exercise. Sport is a wonderful way to do this as many sports include more than one area.

Yoga, for example, works on strength, balance and flexibility; while gymnastics can work on all four areas.

**Think about a sport you play. What does it include?  
What areas of exercise are you working on?**

In my sport, I run, barge with opposition shoulders, jump in the air, sprint my top speed, stand up straight in a wall and lunge to make tackles.

**What sport is this and which area(s) of exercise does it cover?**



# OUR BODIES AND EXERCISE

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## WHY IS A COMBINATION OF ALL FOUR AREAS IMPORTANT?

Isolating and exercising the four areas can also directly improve your capability within a sport:

- If I train by running long distances my endurance will improve I will therefore be able to run longer in a rugby match.
- If I improve my strength through push ups and weightlifting, I will be stronger in the scrum.

Another example:

I am a tennis player with the most powerful and accurate serve. However, I don't have the endurance to run around the court. It's unlikely my serve will be enough for me to compete in and win matches.



# OUR BODIES AND EXERCISE

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## HEART RATE AND PULSE

Your pulse is your heart rate, or the number of times your heart beats in one minute.

Pulse rates vary from person to person.

Your pulse is lower when you are at rest and increases when you exercise as your muscles need to use more oxygen.



# YOUR TASKS

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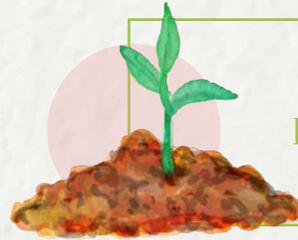
## DO

Reflect on your findings and adapt your activities to ensure you cover all four types of activities.



## MAKE

Analyse your current exercise activities. The next slide gives more details.



## RESEARCH

Read more on NHS guidelines for ([LINK TWO](#)).

# TASK ONE

Analyse your current exercise activities.

- Think about your current exercise activities.
- List the ways that your lifestyle or the sports you play cover the four different areas of exercise.
- You can think about life before, during or after lockdown.

You have two options.

## OPTION ONE:

### Analyse your lifestyle and general activities

#### STRENGTH

Joe Wicks workouts  
Using the stairs instead of a lift



#### BALANCE

Hopping  
Bouncing on the trampoline

#### ENDURANCE

Running in the playground

#### FLEXIBILITY

Climbing on a climbing frame  
Back bends in the playground

## OPTION TWO: Analyse your main sport



# TASK TWO

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## Reflect on your findings.

Ask yourself the following questions:

- Is there an area of exercise you do more than others?
- Is there an area of exercise that you could do more?
- Does your sport cover all areas?
- How could you improve your lifestyle to create more balance between the four types of exercise?

### Example reflection:

I have found that although football covers all four of the exercise areas, there are significant differences in the amounts.

For example, I am training in endurance a lot more often than I am training in flexibility and strength. This is useful to understand because now I have a clear picture of what I'm doing well and which areas I can improve. I will aim to do more activities involving flexibility.



# 03

## MINDFULNESS

Sleep is important

Negative thoughts can affect your wellbeing

Relaxing, meditating and talking through problems  
can help you deal with stressful situations



# IMPORTANCE OF SLEEP

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Both your brain and your body need adequate sleep to enable them to function properly.



## BRAIN

Your brain needs sleep so that:

Your memory works well and you remember what you learn.

You can concentrate and remain attentive.

You can solve problems and work creatively.

## BODY

Your body needs sleep so that:

Your muscles, bones and skin can grow properly.

It can repair injuries or strains to muscles.

It can stay fit and fight off infections.

# SLEEP

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Lack of sleep can lead to:

- Feeling tired
- Bad temper
- Tearfulness
- Inability to concentrate
- Depression
- Weight gain
- Increased likelihood of getting ill.



# HOW MUCH SLEEP?

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## PRE-SCHOOLERS

1-13 hours each day  
(including naps)

## SCHOOL-AGED

9-12 hours each night

## TODDLERS

11-14 hours each day  
(including naps)

## TEENAGERS

8-10 hours each night

## BABIES

12-16 hours each day  
(including naps)

## ADULTS

7-8 hours each night



# SLEEP

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On average, when do you go to bed and when do you wake up?

How many hours of sleep is that?

Are there any times in the week or month when you have a different, or interrupted, sleep pattern?

**Make a note of your sleep pattern over the course of a week.**



# IMPROVE YOUR SLEEP

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Here are some tips to help you sleep well:

- Keep your bedroom cool (around 17 degrees), dark and quiet.
- Keep TVs, computers, tablets and phones out of your bedroom – the light from the screens interferes with your sleep patterns.
- Stop any screen time at least an hour before you go to bed.
- Get enough physical exercise – around 30 minutes a day. Finish exercising at least an hour before you go to bed.
- Have a warm, milky drink to help settle you to sleep. A light healthy snack before bed might also help.
- Avoid caffeine after around 2pm. That means chocolate, coke and energy drinks, as well as coffee!
- Set a routine and go to bed at around the same time every night.



# NEGATIVE THOUGHTS

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Often, we think negatively about a situation or an event that has happened or is about to happen.

When we think negatively, we are likely to carry on thinking negatively, which helps to make the thought more powerful.

When this happens, it is really difficult to find positive thoughts.

This can lead to a one-sided view of a situation or event which is often not a true judgement.



# NEGATIVE TO POSITIVE

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Can you turn these negative thoughts to positive ones? I have completed the first one for you.



## NEGATIVE

I am not good at Maths because I only got 16 out of 20 correct in my test.

My friends don't like me anymore because I can't go on the sleepover with them this Saturday night.

My best friend doesn't like me anymore because he didn't want to play with me at break time.

**Do you have any negative thoughts? How can you turn them into a positive?**

## POSITIVE

I nearly got full marks in my Maths test, but there is room for improvement.

# YOUR TASKS

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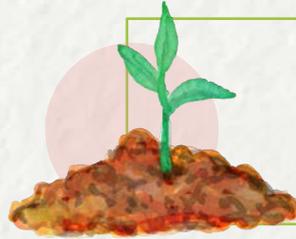
## DO

Create a mindfulness plan; incorporate one breathing activity and one yoga activity each day.



## MAKE

Write a daily thought journal. Try to turn negative thoughts into positives. If you can't, try talking to an adult.



## WATCH

Watch the video on BBC Bitesize ([LINK THREE](#)) about seeing both sides of a story.

## EXTENSION

Communication is vital to a positive mindset.

Phone a friend or a family member for a chat.

Ask them how they are and what they have been up to. Listen to what they tell you.

# TASKS

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## 01

### Eat

Keep a food journal

Create a healthy meal plan

Research a recipe to replace one  
'guilty pleasure' food

## 02

### Exercise

Analyse your physical activity

Reflect on your activity

Create an exercise plan

## 03

### Care

Write a daily thought journal

Create a mindfulness plan

