

# Fitness & food choices: Outcomes and activities

## God is Pure and Holy Yr 5

### He gives us health rules to obey

#### Spiritual Awareness

Our bodies are temples of the Holy Spirit. Each individual is extremely valuable. It is therefore our responsibility to look after ourselves, to think ahead and act wisely for our own protection. Just as we need to look after our bodies for physical health, loving and obeying God gives us spiritual health.

#### Bible verses:

1 Corinthians 6:19-20 Don't you know that your body is a temple of the Holy Spirit?

Proverbs 4:20 & 22 Listen to my words. Remember them and keep them in your heart. They will give life and health to anyone who understands them.

Proverbs 3:7-8 Never let yourself think you are wiser than what you are; simply obey the Lord and refuse to do wrong. If you do, it will be like good medicine, healing your wounds and easing your pains (GNB).

Luke 2:52 Jesus grew both in body and in wisdom (GNB).

Proverbs 13:13 If you refuse good advice you are asking for trouble; follow it and you are safe (GNB).

#### Key Questions

Why should we take care of our bodies?

How can we keep our bodies fit and healthy?

Which foods are the best foods?

Why does God want us to follow rules?

What is the meaning of 'fit'?

How can we keep our bodies fit?

#### Outcomes

Students will:

##### *Knowledge*

- study the requirements for health and fitness
- know the requirements for spiritual health
- Understand the benefits of regular exercise
- Know the best foods to eat for a healthy body
- Understand the meaning of wisdom and self-control when caring for their bodies

##### *Skills*

- analyze their own lifestyle and identify strengths and weaknesses
- develop surveys and questionnaires around health issues
- collate, graph, summarize findings
- plan a personal health program and address areas of personal weakness
- Devise a personal exercise program

##### *Values*

- appreciate the body as the temple of the Holy Spirit
- care for self
- be responsible and accountable for one's own actions

## Activities

- Make a list of rules for good health
- Discuss some of the Old Testament health laws.
- Discuss importance of exercise and rest.
- Test and measure personal fitness levels.
- Make a list of exercise options.
- Discuss food requirements for a healthy body.
- Keep a diary of food consumed over a certain period of time. Suggest improvements / healthy substitutes for junk food.
- Devise a healthy meal plan.
- Collect, make and sample healthy food.
- Discuss the implications of wise or unwise choices that affect our health.
- **Devise an exercise plan**

Ask your child to choose their favourite types exercise. They can draw up a weekly exercise plan, e.g.:

Monday: Play with the dog

Tuesday: Skipping

## Create definition of food for fitness

e.g. foods from nature; food to help our muscles grow (fish, meat, milk, lentils); food to give us energy (vegetables, fruit and fats); food that contains many *nutrients*. Nutrients are things in our food that make us grow and keep us alive and well.

## Some more definitions

**Natural food:** Also called 'unprocessed food'. These are foods directly from nature, such as fruit, vegetables, nuts, meat, fish and eggs. Some dried or tinned foods can be classified as natural foods if they do not have food additives, e.g. dried beans, lentils, rice, butter, milk, tinned tomatoes.

**Fast food:** Convenience food from outlets. Ready-to-eat foods such as hamburgers, hot dogs, fried chicken and chips. These have some nutritional value but contain ingredients that are not good for our health. Should be eaten rarely.

**Food additives:** Chemicals added to give artificial colour or flavour, or to preserve the food.

**Processed food:** These are foods that are changed from their natural state and sold in packets, cartons and cans. Some have nutritional value. Some have additives. Food labels should be checked and assessed for health benefits.

**Junk food:** food with no nutritional value and food that may be bad for our health. These include sweets, sugary foods, savoury snacks such as potato crisps, and soft drinks or imitation fruit drinks. Should be consumed rarely.

**Food additives:** Food additives are chemicals added to the food for colour, flavour or as a preservative.

## Good fats, bad fats

Why are fats such as butter and coconut oil 'good' fats? (They are from nature.)

Why are the fats in fried chips from fast food places 'bad' fats? (The answer is that most bottled processed cooking oils and margarine have been heated to high temperatures and they are not good for our health. The exception is olive oil which can withstand high temperatures without spoiling).

### **Too much sugar**

List some reasons why sugar is not good for us, e.g. causes tooth decay, is a processed food (unless you suck on the natural sugar cane), makes our bodies weak and unable to fight off sicknesses like colds and flu. Too much sugar can cause diabetes.

### **Too much white starchy food, (bread, pasta, and food made with white flour)**

The starchy food turns to sugar inside us and gets stored as fat. We need to eat plenty of coloured vegetables as well the starchy foods. We also need foods for growth and developing our muscles. That means we need foods like meat, fish, milk and eggs.

### **Too much salt**

Salt from the sea contains valuable nutrients. But white salt that you buy in the shops has most of the nutrients taken away and too much of it can cause health problems.

### **Make a table of problem foods**

The student can make a list of processed /junk foods and then write them in a table:

1. Foods with the wrong kind of fat
2. Foods with too much sugar
3. Foods with too much salt
4. Foods with artificial colourings and flavourings

### **My personal eating plan**

The student can take a personal record of the food they might eat in a typical day. They can suggest how they may improve their diet.

They should include:

5 different types of coloured vegetables

2 different fruits

Foods for growth and building muscles: e.g. meat, chicken, fish, milk, eggs, lentils

Some good fats: e.g. butter, olive oil, coconuts

Some starches such as rice, potato

### **Make a list of healthy snacks**

#### **A healthy breakfast**

Why is it important to eat breakfast?

What are some unprocessed, natural foods that we can eat for breakfast?

Take a look at breakfast cereal packets.

Why are most breakfast cereals a waste of money?

Many breakfast cereals contain added salt and sugar. Assess breakfast cereals for salt, sugar, colourings and flavourings.

## The NEW START eight rules for healthy living

### NEW START stands for:

- **Nutrients** – are the parts of food that makes us grow, and stay healthy. Only healthy foods do this.
- **Exercise** – at least half an hour every day
- **Water** – 6 glasses a day, (not fruit juice or fizzy drink)
- **Sunlight** – for vitamin D for strong bones.
- **Toxin-free** – avoid artificial food additives and avoid toxic chemicals in the environment
- **Air** – get fresh air every day
- **Rest** – don't stay up late
- **Think happy thoughts and trust in God**



### Quiz game - rules for healthy living

Cut these questions into paper strips and place them in a box. Draw out questions for a quiz game. This can be played as a 'buzzer' game with two teams. The first team to 'beep' gets to answer the question.

1. Name a healthy food for building muscles.
2. Why do we need to exercise?
3. Name three exercise activities.
4. How many glasses of water should you drink per day?
5. Why is water the best drink?
6. Why do we need sunlight?
7. Name two foods that could contain artificial colourings or flavourings.
8. Name two foods that contain no food additives.
9. Why do we need fresh air?
10. Name two ways to provide the body with fresh air.
11. Why should we avoid staying up late?
12. What does sleep do for the body?
13. Why should we think happy thoughts?

# Values education Year 5

## God is Pure and Holy

### Self-control

God has given us His Holy Spirit, who works in the lives of Christians, producing patience and self-control.

### Self-control is...

- controlling *myself*
- being careful about what I do and say
- not doing the wrong thing when I *know* it is wrong
- being careful about the way I use my time
- not losing my temper
- not being greedy
- knowing when to stop
- saying 'no'
- being in charge of the things I do
- choosing to do the right thing

### Activities

#### 1. *Self-control in the things I do*

- a) What are some things that you can say 'no' to?
- b) What can you do when you are tempted to do wrong things?

#### 2. *Self-control with time*

- a) How do you like to spend time?
- b) What would happen if you spent all your time just doing the things you liked?
- c) Sometimes we can spend too much time doing one thing. We need self-control to say "enough" when there are other important things to be done. Make up a list of ways you can spend your time outside of school hours. Keep a record of how much time you spend on each one over a period of a week. (Do not include holiday times).

Here is an example to show you how to set it out:

### How I use my time

<u>Date</u>	<u>Activity</u>	<u>Amount of time</u>
	watching TV	
	computer, phone or electronic games	
	hobbies	
	sport	
	reading and homework	
	helping	

- d) How could the person in the example improve their use of time?  
How can you improve your use of time?

### **3. Self-control with food and things**

- a) Why is it important to have self-control with food?
- b) Write down any material goods that you get tempted by. It is not wrong to have material things but it may be wrong to have too many. Why?
- c) Work with a group. Sit in a circle and make up a continuous story about a boy, or a girl or a family, who wanted every new and exciting thing. The story grows as each person adds a sentence.

### **4. Self-control in what I say**

What can happen when you lose your temper?  
How can we hurt people with words?

#### **What does the Bible say about self-control?**

Galatians 5:22-23 Self-control is a fruit of the Spirit.

Ecclesiastes 7:9 Do not be quickly provoked.

Titus 2:6, 11 Be self-controlled. Say "no" to ungodliness.

Hebrews 13:5 Be content with what you have.

James 3 Controlling the tongue

Ephesians 4:26 Do not let your anger lead you into sin.

# Year 5 Art

## God is Pure and Holy

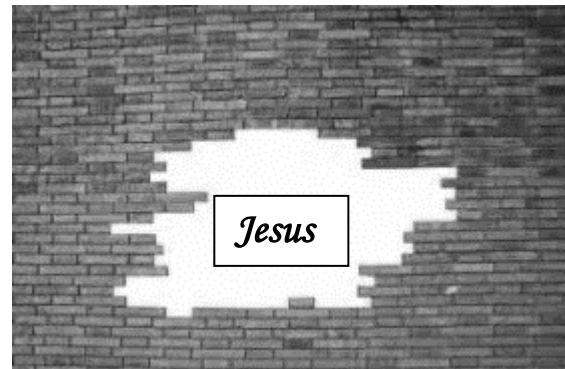
### Fitness and Food choices

**Bible verse and wall display:** Ephesians 2:14 He is our peace. He has broken down the wall.

Students can make a display of large wall, and show how Jesus has broken that wall of sin.

**EPHESIANS 2:14** ❤️

**FOR HE IS OUR PEACE,  
WHO HATH MADE BOTH  
ONE, AND HATH BROKEN  
DOWN THE MIDDLE  
WALL OF PARTITION  
BETWEEN US;**



### Fitness art

Students can draw figures of people in action, e.g. running, jumping, walking, climbing etc.

### Food art

Students can

- draw still life fruits and vegetables
- design a menu
- make a healthy food collage



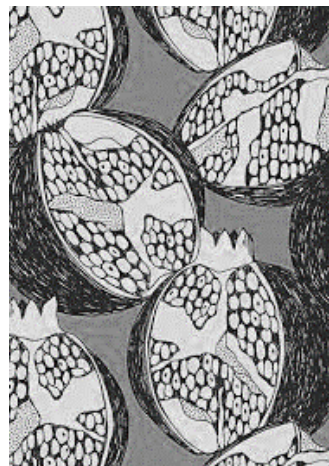
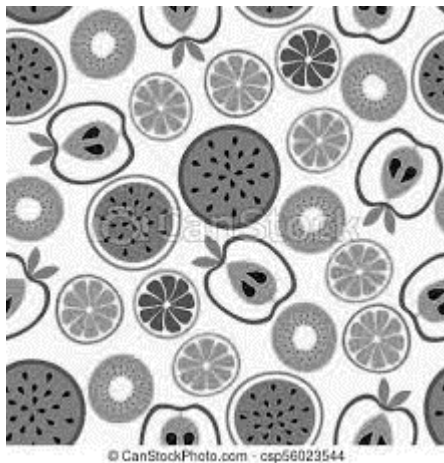
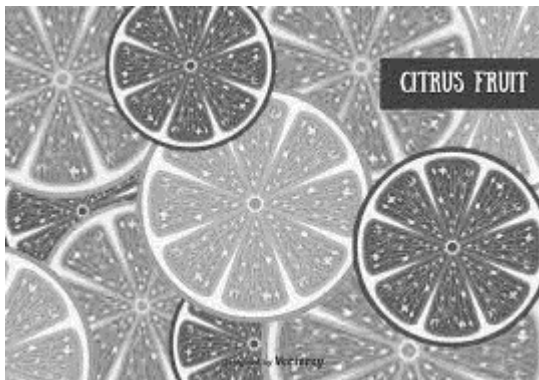
### Painting and drawing

Still life drawings or paintings of fruits and vegetables.



### Printing, pattern and design

Use fruit or vegetable shapes as a basis for a pattern. Consider cross-cut sections as well.





**Thinking Skills**

<p><b>Food and nutrition 1</b></p> <p>Work out 10 things that this picture could represent in regard to food.</p> 	<p><b>Food and nutrition 2</b></p> <p>Design 5 unusual ways of encouraging young children to eat healthier food.</p>
<p><b>Food and nutrition 3</b></p> <p>Name 10 healthy foods that you have NEVER eaten.</p>	<p><b>Food and nutrition 4</b></p> <p><b>What if a single pill could replace your daily food intake?</b></p> <p>Give 10 different consequences.</p>
<p><b>Food and nutrition 5</b></p> <p><b>School canteens should not sell junk food.</b></p> <p>Give 5 good reasons for this.</p>	<p><b>Food and nutrition 6</b></p> <p>Predict a type of cooking appliance that will be used in family homes 100 years from now.</p> <p>Draw it (if possible).</p>

# Year 5 Practical Science

**God is Pure and Holy      Topic: Fitness**

## Check your pulse rate

<http://www.cyh.com/HealthTopics/HealthTopicDetailsKids.aspx?p=335&np=285&id=1467>

Your heart is a pump which pumps blood out around your body through your arteries. You can feel the blood pumping where the arteries are close to your skin. These are your pulse points, and if you feel gently with your fingertips you can count how fast your heart is beating.

The idea of aerobic exercise is to get your heart pumping faster, which will exercise and strengthen your heart.

Learn how to take your pulse, and you will be able to see how well you are doing in your aerobic exercises.

### How to take your pulse

You can find your pulse in several places. Here are two of the easiest places to find it.

To find your pulse:

1. in your neck

Put three fingers of your left hand onto your Adam's apple in your throat (that's the bit that sticks out and goes up and down when you swallow.) Feel gently to the side of it, and you will find your pulse beating (you can feel it going up and down).

2. in your wrist

Hold your hand in front of you. Stick your thumb up in the air and turn the palm towards you.

With the first two fingers of your other hand, stroke from the top of your thumb down the side until your fingers reach your wrist. Let your fingers slide downwards onto the inside of your wrist, and gently feel for your pulse.

When you have found a steady beat, count how many beats in 15 seconds (use a watch or clock with a second hand). Multiply your score by 4, and that will tell you your pulse rate per minute.

### To see how well you are exercising, you need to:

- Take your pulse before you start - this is your 'starting pulse'.
- Take your pulse after you have been doing high level exercise. You should be aiming for over 150 beats a minute (if you are fit and well). Aim to keep it at the higher rate for 15 minutes.
- Take your pulse when you have finished your cooling down exercises. It should be the same as, or a bit lower than your starting pulse.
- To really improve your stamina and endurance, you should do 20-40 minutes of aerobic exercise at least three times a week.

Don't forget to do your warm up and stretching exercises before starting high energy exercise. You will notice that your recovery time (how quickly your pulse gets back to normal) gets shorter the fitter you get.

# Practical Science

## Kitchen chemistry

### Blow up a balloon with yeast

<http://www.sciencebob.com/experiments/yeast.php>

#### You will need

- A packet of yeast (available in the grocery store)
- A small, clean, clear, plastic water bottle
- 1 teaspoon of sugar
- Some warm water
- A small balloon

#### What to do

1. Fill the bottle up with about one inch of warm water. (When yeast is cold or dry the microorganisms are resting.)
2. Add all of the yeast in the packet and gently swirl the bottle a few seconds. (As the yeast dissolves, it becomes active - it comes to life! Don't bother looking for movement - yeast is a microscopic fungus organism.)
3. Add the sugar and swirl it around some more. Like people, yeast needs energy (food) to be active, so we will give it sugar. Now the yeast is "eating!"
4. Blow up the balloon a few times to stretch it out then place the neck of the balloon over the neck of the bottle.
5. Let the bottle sit in a warm place for about 20 minutes. If all goes well the balloon will begin to inflate!

#### How does it work?

As the yeast eats the sugar, it releases a gas called carbon dioxide. The gas fills the bottle and then fills the balloon as more gas is created. We all know that there are "holes" in bread, but how are they made? The answer sounds a little like the plot of a horror movie. Most breads are made using YEAST. Believe it or not, yeast is actually living microorganisms! When bread is made, the yeast becomes spread out in flour. Each bit of yeast makes tiny gas bubbles and that puts millions of bubbles (holes) in our bread before it gets baked. Naturalist's note - The yeast used in this experiment are the related species and strains of *Saccharomyces cerevisiae*. (I'm sure you were wondering about that.) Anyway, when the bread gets baked in the oven, the yeast dies and leaves all those bubbles (holes) in the bread. Yum.

#### Make it an experiment

The project above is a DEMONSTRATION. To make it a true experiment, you can try to answer these questions:

1. Does room temperature affect how much gas is created by the yeast?
2. Does the size of the container affect how much gas is created?
3. What water/room temperature helps the yeast create the most gas?
4. What "yeast food" helps the yeast create the most gas? (try sugar, syrup, honey, etc.)



Science experiment with warm water, sugar and yeast. The gas is blowing up our balloons!!!!

# Practical Science

## Kitchen chemistry

### Lava in a cup

#### What you will need

- A clear drinking glass
- 1/4 cup vegetable oil
- 1 teaspoon salt
- Water
- Food coloring (optional)

#### What to do

1. Fill the glass about 3/4 full of water.
2. Add about 5 drops of food coloring (Red is good for giving a lava look.)
3. Slowly pour the vegetable oil into the glass. See how the oil floats on top.
4. Now sprinkle the salt on top of the oil.
5. Watch blobs of lava move up and down in your glass!
6. Add another teaspoon of salt to keep the effect going.

#### How does it work?

So what's going on? First of all, the oil floats on top of the water because it is lighter than the water. Since the salt is heavier than oil, it sinks down into the water and takes some oil with it, but then the salt dissolves and back up goes the oil!

#### Make it an experiment

The project above is a DEMONSTRATION. To make it a true experiment, you can try to answer these questions:

1. How long will the effect go on if you keep adding salt?
2. Do different kinds of food oil give different effects?
3. Will other substances (sand, sugar. etc.) work the same as salt?
4. Does the height or shape of the glass affect the experiment?

# Practical Science

## Kitchen chemistry

### Mixing Oil and Water

<http://www.sciencekids.co.nz/experiments/oilandwater.html>

Oil and water do not normally mix. Find out how bringing oil and water together can help you do your dishes.

#### What you'll need:

- Small soft drink bottle
- Water
- Food colouring
- 2 tablespoons of cooking oil
- Dish washing liquid or detergent

#### Instructions:

1. Add a few drops of food colouring to the water.
2. Pour about 2 tablespoons of the coloured water along with the 2 tablespoons of cooking oil into the small soft drink bottle.
3. Screw the lid on tight and shake the bottle as hard as you can.
4. Put the bottle back down and have a look, it may have seemed as though the liquids were mixing together but the oil will float back to the top.

#### What's happening?

While water often mixes with other liquids to form solutions, oil and water does not. Water molecules are strongly attracted to each other, this is the same for oil, because they are more attracted to their own molecules they just don't mix together. They separate and the oil floats above the water because it has a lower density.

If you really think oil and water belong together then try adding some dish washing liquid or detergent. Detergent is attracted to both water and oil helping them all join together and form something called an emulsion. This is extra handy when washing greasy dishes. The detergent takes the oil and grime off the plates and into the water!

# Eric Liddell

## Biography

Eric Henry Liddell was born in 1902 in China. His parents were missionaries there. He spent his early childhood playing among the Chinese children. He spoke their language perfectly.

His parents brought Eric Liddell home to England for his high school and university education. During that time, he enjoyed running and was a very fast runner.

He trained for the 1924 Olympic Games and was chosen to represent England. He was scheduled to run in the 100-meter, but the race was going to take place on a Sunday. Eric knew the Ten Commandments and wanted to keep Sunday as a day of worship. He decided not to run.

However, God honoured this decision and he was given the opportunity to run in 400-meter instead. He ran this in record time and won a gold medal.

After the Olympic games, he married and believed God that he was to return to China. It was a dangerous time because the Japanese soldiers had invaded China and were treating the Chinese people badly. They killed many of them, burned their villages, and destroyed their crops. Despite these difficulties, Eric stayed. He was sure God had called him to China.

He began teaching at a British-run Chinese college. He loved teaching the boys and challenging them in sports. However, life in China was becoming more difficult. The mission board decided to relocate Eric to the area he had grown up in.

Eric worked long hours travelling in the war-torn area preaching and tending the sick. Many times, he had to carry the injured to the hospital on his bike over rough roads while dodging gunfire. In the meantime, the Japanese were taking over more of the country and there was talk that all foreigners would be locked up.

All foreigners were forced to move into an overcrowded prison camp. They lived in very bad conditions. There was no running water, the bathrooms did not work and they were given only a small bowl of soup and bread at each meal. Eric ran church services in the prison, schooled the children and helped take care of the sick. He became the most respected person in the prison because of his good attitude.

He was in the camp for 2 years when he became very sick. He had a stroke and was unable to walk. He died in the Chinese prison camp in 1945, age 43. When the news reached Scotland, the entire country mourned Eric Liddell's death as their beloved athlete had died at a young age.

Eric's devotion to God and commitment to spread the story of Jesus would be remembered around the world.



## Activities

1. Why did Eric Liddell give up running?
2. How did he first help the Chinese people?
3. What kind of difficulties did Eric find in China?
4. What were the conditions like in the prison camp?
5. What was Eric able to accomplish while he was living in the prison camp?

## Fitness & food choices 1

### Choosing healthy foods

#### Draw a healthy breakfast.

Try to choose foods other than packaged cereals. Here are some foods you might choose:

- fresh fruit
- porridge
- milk,
- yoghurt
- egg



#### Now draw a healthy school lunch.

Try to include:

- vegetables
- fruit



#### Draw a healthy home-cooked main meal:

Here are some foods you might choose:

- potatoes or yams
- rice
- fish
- meat
- cooked vegetables
- raw salad vegetables
- lentils (dahl)
- cooked dried beans (legumes)

## **Fitness & food choices 2**

### **Can you help?**

Here is a list of food that a boy eats in one day. Make a new list for him, giving some suggestions for improving his diet. Also think about how much water he should be drinking.

#### **Breakfast**

1 glass of chocolate milk  
2 slices of white toast with jam

#### **Mid-morning**

2 sweet biscuits  
1 fruit juice in a packet

#### **Lunch**

sandwiches made with white bread  
2 sweet biscuits

#### **After school**

Fizzy drink  
1 packet potato crisps

#### **Evening meal**

1 pizza from the shop  
1 serving of hot chips  
1 corn on the cob  
1 piece of cake



### **Fitness & food Choices 3**

#### **8 rules for fitness: NEW START**

**Nutrients:** Choose foods that as close to nature as possible.

**Exercise:** Exercise is good for our heart. Fast activity gets the heart pump rapidly and gets blood flowing around our body faster. Exercise is also good for building muscles and strengthening our bones.

**Water:**

Drink 6 glasses per day. Drink less fruit juice and keep fizzy drinks for only very special occasions.

**Sunlight:**

We need sunlight for vitamin D, which makes our bones grow strong.

**Toxin-free:**

Choose foods and drinks that contain no artificial chemicals like colours, flavours or preservatives. Another good rule for "T" is *traditional diet*.

**Air:** Play outdoors and get plenty of fresh air.

**Rest:** Go to bed early. Don't stay up late. The body needs sleep for growth and good health.

Think happy thoughts and trust in God. Bad thoughts, like anger, hatred and unforgiveness will make us feel unhappy and stressed.

**Make a poster showing the 8 rules for healthy living**



## **Fitness & food choices 4**

### **NEW START QUIZ**

1. Name a healthy energy food.
2. Name a healthy food for building muscles.
3. Why do we need to eat a variety of fruit and vegetables?
4. Why do we need to exercise?
5. Name three exercise activities.
6. How many glasses of water should you drink per day?
7. Why is water the best drink?
8. Why do we need sunlight?
9. Name two foods that could contain artificial colourings or flavourings.
10. Name two foods that contain no artificial food additives.
11. Why do we need fresh air?
12. Name two ways to provide the body with fresh air.
13. Why should we avoid staying up late?
14. What does sleep do for the body?
15. Why should we think happy thoughts?

## **Fitness & food choices 5**

### **Fats**

There are good fats and bad fats

#### **Good fats**

The best fats are straight from nature. We get good fat from butter, fish, meat, nuts and coconuts.

#### **Bad fats**

The bad fats are the ones that have been processed in a factory.

These are:

Margarine

Cooking oil in plastic bottles

Margarine and cooking oil from plastic bottles can create toxins in our bodies. Toxins are poisonous substances. Now you may be thinking that these toxins would make you sick. Actually, they don't make you feel sick. The amount of toxins you take into your body with bad fats in one meal might be very small, and your body doesn't notice it straight away. However, after a long time, the toxins build up, and can cause health problems.

*Where do we find them?*

In the supermarket: margarine and bottled cooking oil

In processed foods such as chips, crisps and pastries

List some good fats

List some bad fats

## **Fitness & food choices 6**

### **White table salt**

White table salt, used in most foods that we buy, is called refined salt, and contains no goodness. That's because it has been processed in a factory. It actually contains chemicals that are not good for our bodies. It is important not to eat too much salty food.

*Where do we find white table salt?*

Apart from on the table, we find it in packaged food like potato crisps, most breakfast cereal, tinned foods, cracker biscuits, bought bread, tomato sauce, hamburgers, sausages, hot dogs and many other foods.

*What can I eat instead?*

Make your own healthy snacks. If you make your own food, then you can use less salt.

1. Name some processed foods that contain lots of salt.
2. List some healthy snack foods that you could make or buy.

## **Fitness & food choices 7**

### **Sugar**

Sugar comes from sugar cane. If we could cut the sugar cane and suck the sugar straight from the cane, we would be getting some healthy nutrients.

But the sugar we buy from the supermarket has been processed. This type of sugar is called refined sugar, unlike the sugar you would find naturally in a piece of fruit. Refined sugar is made out of the liquid cane sugar. It has been heated and cooled until crystals are formed. These sugar crystals now have no nutrients. Sugar also causes tooth decay.

Our bodies have to work hard to break down refined sugar. People who eat a lot of sugar have less energy and can catch colds more easily. Sugar causes people to gain too much weight. Too much sugar causes diabetes.

#### *Where do we find it?*

Refined comes in three types, white, brown and raw. It is found in sweet foods and soft drinks and packaged fruit drinks. It is also added to many processed foods, even tinned food and bread.

#### *What can I eat instead?*

Eat fruit in which there is natural fruit sugar. The body can use this type of sugar more easily. You can also eat a little honey, but remember to clean your teeth because all sweet things can promote tooth decay.

1. Give two reasons why sugar is not good for health.
2. Think of some supermarket foods that contain sugar.
3. List some supermarket foods that don't contain sugar.



## **Fitness & food choices 8**

### **Choose the healthy foods**

Write down the foods that contain **no** refined salt, no processed sugar, and **no** bad vegetable oils.

sausages    apples    bananas    dried beans    home-cooked-meat    potato  
crisps

hamburgers    carrots    coconuts    pumpkin    potato    rice    margarine

tinned soup    biscuits    ice-cream    cheese    home-cooked-fish    avocado

### **Packaged breakfast cereals**

Packaged breakfast cereals contain added sugar and salt. It tells you this on the packet.

Traditional foods are much better than packaged cereals and bread. For example, eggs, fish, rice, vegetables, dhal.

If the cereal contains:

Write a list of healthy foods that your family could eat for breakfast.

## **Processed food 1**

### **Chemicals**

Processed food is the food that is made in factories. It may have started from nature, but has been changed.

Some processed foods have nutrients, but some are not-so-healthy because they have lost their nutrients, or have additives that are not so good for us.

### **Chemical additives**

The world around us is made of chemicals. All food is made of chemicals. Chemicals are the “stuff” that something is made from. Chemicals can be safe or unsafe. They can be helpful or harmful. They can be good or bad.

Man-made chemicals are the problem chemicals. They are often sprayed on the fruit or vegetables to keep the bugs away. These chemicals are not good for us so we should always wash our fruit and vegetables before we eat them.

Chemicals are added to processed foods, to make them last longer (preservatives), to make them look or taste better (artificial colourings and flavourings) or to change the texture. These are called food additives. We are told that all food additives are safe because they have been tested for safety. But the truth is, some food additives have a bad effect on the health of some people. Some children have allergies and other have their concentration is upset by certain additives. No one really knows what the long-term effects might be. Eating natural foods is always better!

1. What is a chemical?
2. Are all chemicals bad?
3. What are the three types of food additives?
4. What do these additives do to the food?
5. Name two foods that contain food additives.
6. How can we avoid eating food additives?
7. Which processed food would be most nutritious: a tin of tomatoes with no additives or a packet of savoury shape biscuits?

## **Processed food 2**

### **Food additives**

**Food additives are substances that are added to food.**

**Here are a few of the most common food additives that may not be so healthy:**

#### **Preservatives:**

Used to make the product last longer.

*Found in:*

bread, cakes and biscuits

in vegetable oils, chips and fried foods

in some fruity drinks and soft drinks

in some sausages

in processed meats like ham and bacon

#### **Colours:**

These are made from man-made dyes

*Found in:*

Sweets, icing, ice-cream, drinks

#### **Flavours:**

Used to make a product taste spicier or saltier

*Found in:*

instant noodles, savoury snacks, pies, take-away food, sweets, and drinks

*Make a chart of processed foods. Make three columns with the three headings. Draw and label foods in each column.*

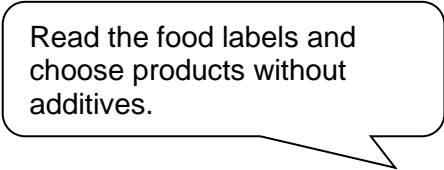
## Processed Food 3

### Food Labels

If we want to know the truth about the packaged food we eat, then we must find out what's in it. All processed packaged food should have a list of ingredients. We can read the labels to find out more about the ingredients.

Collect information from food wrappers and food packets. Look at the ingredients list. Write the name of the product you are investigating. Give comment on how healthy the food is.

Does it have any food additives?



Read the food labels and choose products without additives.

Name of product	Food additives
Rice	no
Biscuits	yes

## Processed Food 4

### Processed food and learning ability

Many popular processed foods are actually preventing children from doing their best in learning at school. Loaded with sugars, chemicals, salt and bad fats, many popular processed foods can cause children to be tired, unfocused, fidgety, and sick. This not only impact students' performance, but also influences their behavior and moods.

#### Lack of Energy and Focus

French fries, sugary foods, cheeseburgers, chicken nuggets, packets of crisps and similar snacks can lower students' brain power.

High sugar and refined white flour in these foods cause glucose in our blood to reach a high, after which there is a 'crash', when the body has low glucose and begins to shut down as it processes. It leaves us feeling tired and unable to think properly. A regular diet of high sugary foods can result in damage to kidneys, eyes, blood vessels, and nerves.

<https://www.publicschoolreview.com/blog/how-diet-and-nutrition-impact-a-childs-learning-ability>

1. Name some popular processed foods that are not good for our health.
2. What are the problem ingredients in these popular processed foods?
3. Why are these ingredients such a problem? (List 3 reasons)
4. What is the 'crash' the body experiences after the high of too much sugar?
5. Draw a diagram of to show what happens in the blood when we eat a lot of sugar. (Show the high and low).

## Processed Food 5

### Good fats, bad fats

#### *Bad fats:*

Fast food and junk food usually contain bad fat. Let's find out what bad fats are.

Vegetable oil in plastic bottles have been processed with heat. The oil then cools and gets heated again in cooking. These oils are not good for our health. We don't see the effects straight away, but over time bad fats can cause health problems.

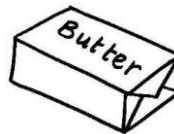
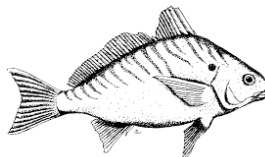
Margarine is another example of a heat processed oil and is a bad fat. However olive oil is an exception. It is a good oil because can withstand heat.

We find heat-processed vegetable oils in foods cooked in oil. Chips, crisps, deep fried foods and pastries are examples.

#### *Good fats:*

Butter, olive oil, coconuts, avocados, nuts, fish

*Make a list of good fats and a list of bad fats.*



### What do good fats do?

- Provide us with energy
- Help carry the vitamins and minerals around our body
- Give us healthy skin

## Processed food 6

### White salt

White salt, used in most processed foods, is called refined salt, and contains no goodness. If we could get salt straight from the sea, that salt would contain minerals that are useful to our bodies.

*Where do we find white table salt?*

Apart from on the table, it's in potato crisps, most breakfast cereal, tinned foods, cracker biscuits, bought bread, tomato sauce, hamburgers, sausages, hot dogs and many other foods.

*What can I eat instead?*

Avoid junk food and processed foods and eat real food.

*List some healthy foods that you could make or buy:*



Himalayan salt is a healthier salt. It is pink in colour. The colour shows the presence of many minerals that are good for us.

## Processed food 7

### Sugar

Although this comes from natural sugar cane, it is no longer natural once it has been processed. This type of sugar is called refined sugar, unlike the sugar you would find naturally in a piece of fruit. People who eat a lot of sugar have less energy and can catch colds more easily.

*Where do we find it?*

Refined sugar is found in sweet foods and soft drinks. It is also added to many other foods, like tinned foods, sauce, bread, cakes and biscuits.

*What can I eat instead?*

Eat fruit in which there is natural fruit sugar. The body can use this type of sugar more easily. Honey is a healthier type of sugar, but still can cause tooth decay if we don't look after our teeth.

Sugar comes from a plant called sugar cane. The stalk of the plant, which looks a bit like bamboo, contains a very sweet liquid. This is natural sugar and has nutrients. However, very few people eat sugar in this way.

The sugar we use as food today is a white crystal substance that can cause damage to our bodies because:

- People eat sugar in large quantities.
- Babies and toddlers are given sugary drinks, and they want to keep having it.
- People cannot stop eating it. (addicted)
- Sugar causes tooth decay.
- Sugar is the main cause of diabetes.
- Sugar weakens our immune system, so that we catch colds more easily.
- Sugar can make us feel tired.
- Sugar can cause people to gain weight.

*Make a poster, "Eat less sugar" and give 4 reasons why.*



## **Processed food 8**

### **My personal eating plan**

Make up a personal plan for improving your diet for one week. Decide which foods you are going to cut out, or cut down on, and which foods you are going to eat more of. Remember to include drinks too. Write down your plan. Include the date. Review your plan after a week and write a report on how well you stuck to your plan.

*This is what I plan to eat for:*

**Breakfast:**

**Lunch:**

**Evening meal:**

**Snacks:**

**Drinks:**

*After one week...*

I think that my diet over the last week has been:

- the same as before
- a little healthier
- very healthy

I think my diet was healthier than before because....

OR I could have done better if I had .....