

God is Protector Teacher's Topic Guide Year 7

Topic: Food and the Immune System Duration: 3 weeks

In this unit, students will assess the nutritional value of different cultural foods and compare this to modern Western processed foods. They will learn about the health benefits of traditional foods and the protection to our bodies that is available to us when we choose a healthy diet.

Bible references:

Genesis 1:29 God's provision of healthy food

Exodus 15:26 Protection in obedience

Galatians 6:9 Reaping what we sow (Not looking after our body has consequences)

Outcomes: Students will

- Understand the health benefits of traditional foods
- Appreciate the taste of foods from different cultures.
- Assess and compare the food value of traditional cultural dishes.
- Identify cultural foods in the community.
- Compare a typical processed food diet with traditional diets
- Devise ways of saving money by deleting unnecessary foods from our weekly food budget.
- Learn about the protective properties of naturally occurring vitamins and minerals in fruits and vegetables and many natural (unprocessed) foods.

Discussion:

What foods can you think of that are eaten by different cultural groups? (Take cultures relevant to your community).

How has the fast food and junk food industry changed traditional eating habits around the world?

How does a processed food diet compare with traditional diets, such as Fijian, Indian, Asian, and Mexican?

How is a typical diet in your country different from that of 100 years ago?

What happens when people combine a traditional diet with a processed food diet?

What are the main types of processed food/drink that people eat in your country?

What are nutrients?

How does a healthy diet protect us from illness?

Activities

- Make a large pie graph poster showing nutrients in foods:

Protein for growth and muscle building found in meat, chicken, fish, lentils, eggs, milk

Calcium for building bones found in milk, yoghurt, cheese, meat, vegetables and fish

Vitamin and minerals for keeping the body performing all the jobs it has to do, to carry oxygen around the body and to help the body fight off diseases, found in fruits, vegetables, meat, fish and most natural foods

Fats for energy and growth found in vegetables, coconuts, butter, meats, fish, milk, nuts

- Discuss health problems cause by processed food diets:

What are the most prevalent health problems in your country?

Can they be prevented by choosing a traditional diet? Which foods would have to be eliminated?

- Ask parents to assist in preparing traditional foods with the students

- Make a chart showing the main healthy foods of two traditional cultures, e.g. Pacific Island, Indian; Mediterranean; Asian; Mexican; Middle Eastern. Label each country's food selection.

- Compare a typical processed food diet with traditional diets. Explain why many traditional diets are healthier than a processed food diet.

- Compare nutritional value of traditional diets with a processed food diet.

Students then decide which foods are the most expensive foods in terms of nutritional value for money. This would mean that junk food is expensive because it has no nutritional value. Lentils and rice are cheap because a packet of lentils or rice when cooked can provide a good number of serves.

- In pairs or individually, students can research a country and write about the culture and the foods of the people. They are to show where the country is on a world map. Suggestions for questions to include in the report:

Where does the traditional food come from? (e.g. farms, home garden, markets, supermarkets)

Who cooks the food?

How do they eat it and who do they eat with? (e.g. immediate family, extended family, friends)

Are there foods that are eaten every day?

Are there any foods that are forbidden?

Are there special foods for celebrations?

- **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**



Some 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.

Beacon Media Research cards: Traditional foods

Blood and the immune system

God is Protector PART B

Spiritual Awareness:

a) The blood of Jesus provides healing and protection

Faith in the shed blood of Jesus protects the Christian from all spiritual adversaries. Blood is a powerful symbol of life and protection.

b) God created us with an inbuilt protective system

Blood serves a number of functions in the human body. The white blood cells give protection by killing viruses and bacteria, and are part of the immune system. The immune system also consists of the lymphatic system and the skin.

Our response to 'God is a Protector'

- Because God is a Protector I will...
- trust God
- have faith
- have peace
- not be afraid because He is with me
- give my worries to God
- do what God asks me to do
- believe that God will do as He says
- put on the armour of God to protect me against the enemy

Bible stories and passages:

Exodus chapters 7-12 God rescues His people from slavery; the blood over the door posts gave protection from the angel of death.

Luke 22:7-20 Cup of the new covenant in Jesus' blood poured out for us; protection from sin, Satan and eternal alienation from God.

Psalms 91 No plague shall come near your dwelling.

Leviticus 22:4 - 8 Ceremonial health laws concerning infectious skin disease, touching a dead body, eating of meat torn by wild animals. These laws were given for the protection of the Jews, long before other cultures knew that disease was passed on by germs, carried by blood, and transferred from animal to man.

Ephesians 1:19-22 The power in Christ's death. He put all things under His feet.

Bible Verses:

Leviticus 17:11 The life of every living thing is in the blood.

Hebrews 13:20 God raised from death our Lord Jesus, who is the Great Shepherd of the sheep as a result of His sacrificial, by which the eternal covenant is sealed. (The blood of Jesus began the agreement that God made with His people.)

Ephesians 1:7 In Him we have redemption through His blood, the forgiveness of our sins, according to the riches of His grace.

John 3:16 For God so loved the world...(God's rescue plan for us).

Exodus 15:26 If you pay attention to my commands I will put none of these diseases upon you. I am the Lord who heals you.

Key Questions

How does our body protect itself?

How important is blood to life?

What examples of the shedding of blood can we find in the Old Testament?

How was this a symbol of what was to come?

Why do you think God chose blood as a symbol of protection from evil?

Outcomes

Students will

Knowledge

- demonstrate that God protects our health by the defensive action of our white blood cells
- identify the components of immune system, (white blood cells and lymphatic system), and explain how the immune system protects us.
- explain how the skin protects us from infection
- describe the difference between red and white blood cells
- understand that living a healthy lifestyle can build a strong immune system and protect us against disease

Skills

- research and present data
- identify and draw different types of blood cells
- compare and contrast types of blood cells
- draw a diagram of the lymphatic system

Values

- appreciate the body's remarkable ability to repair itself and fight against disease
- appreciate the need to practice hygiene rules
- appreciate the work of organizations such as the Red Cross, and the need for blood donors
- appreciate God's provision of the body's protective structures and processes

Activities

- Describe and draw different types of blood cells.
- Report on blood types if known.
- Research the functions fulfilled by the blood: transport of food, waste, oxygen, hormones and chemical messengers; anti-bacterial action of white blood cells, clotting capacity to prevent bleeding, role in body temperature-control.
- Use a microscope to identify different blood cells. Prick fingers and examine blood smear.
- Compare human blood with that of other organisms.
- Draw and label the circulatory system
- Invite a blood bank representative to speak.
- Define the immune system.
- List the components of the lymphatic system, (lymph fluid and vessels, lymph nodes, spleen, tonsils)
- List the functions of the immune system.
- Investigate the role diet plays in building the immune system.
- Discuss the impact of bacteria and viruses on the human body.
- Construct a list of rules for health and hygiene.
- Investigate health rules of the Old Testament, particularly Leviticus 22: 4-8, and compare them to the hygiene knowledge of today.
- Discuss the function of the Red Cross organization, and study the biography of Dunant, the founder.

Assessment

1. Make a poster to explain the function of the blood.
2. Make a chart of foods that strengthen the immune system.
3. What have I learned from the study of blood and the immune system...
about God?
about doing what God wants me to do?
about the Bible?

Learning Connections

Write a story about the day in the life of a white blood cell as it travels around the body.

Mathematics: Compare percentages of red to white blood cells in the blood.

Social Studies: Study the work of community blood banks.

Health: The role of germs in causing disease; basic hygiene; traditional food and health

Art: Design illustrated posters on the importance of washing hands or eating healthy traditional foods.

Biographies: Henry Dunant, Louis Pasteur, Joseph Lister, BeChamp

Research cards: The immune system

Art Year 7

God is Protector

Traditional foods and health

Biblical wall art and text: So whether you eat or drink, or whatever you do, do it all for the glory of God. 1 Corinthians 10:31

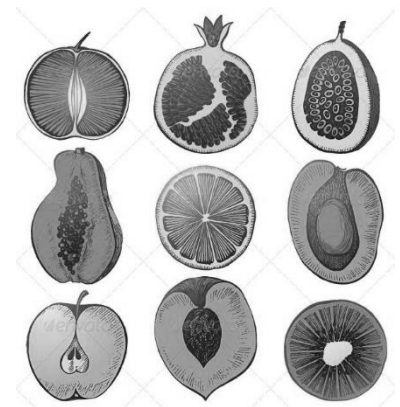
Posters: Traditional foods

How to minimize infection by germs – handwashing, avoiding contact with others when you have colds and flu.

Still life drawings of fruits and vegetables that are a part of a traditional diet.

Cross-sections and patterns

Paint pictures of fruits and vegetables that are cut in half to show the seeds inside. These are 'cross-sections'. Use the pictures to make a placemat or tablecloth design.



Values education Year 7

God is Protector

Responsibility

God provides protection for those who love and trust Him. However he expects us to take responsibility for our own actions as well. We cannot expect Him to protect us if we do not act in a responsible manner.

Responsibility is...

- being reliable
- being accountable
- looking after myself
- looking after my possessions
- being in charge of the way I act
- doing the things I am meant to do

Activities

How could the following foolish actions cause you to get hurt:

- Call people ugly and stupid
- Play with fireworks
- Cross the road without looking
- Swim in water that has undercurrents
- Dive into water that you don't know the depth of

Would you expect God to protect you in these situations?

What does the Bible say about responsibility?

1 Peter 2:2 Grow up to be strong Christians.

Ephesians 5:8 Live as children of the light.

Thinking Skills

Year 7 Protector

<p>Food and nutrition 1</p> <p>Place the letters A-Z down the side of a page. For each letter, name a fruit or vegetable that exists in the world.</p>	<p>Food and nutrition 2</p> <p>Give 10 different uses for: a coconut.</p>
<p>Food and nutrition 3</p> <p>All takeaway food outlets should be demolished. Give 5 justifications to this proposal.</p>	<p>Food and nutrition 4</p> <p>Name 3 ways of peeling a carrot without using a peeler.</p>
<p>Food and nutrition 5</p> <p>Name 5 things that an egg and sunglasses have in common.</p>	<p>Food and nutrition 6</p> <p>Create an original, healthy and delicious recipe using the following core ingredient: Citrus fruit</p>