

# Science, Social Studies, Health

## Teacher's Guide Year 6

### A God-centred Curriculum

Based on the character and nature of God

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# History/Geography of the Pacific Islands & the impact of missionaries

## God is Love

### **Spiritual Awareness:**

God loved the world so much that He sent His Son to a world that was suffering. The Fijian nation suffered under the weight of evil practices such as spirit worship and cannibalism. God extended His love through the message brought by the missionaries, and with it came change. Only the love of God could have motivated the early missionaries to make such great sacrifices, and for many, their lives.

### **Our response to 'God is Love'**

Because God is a love I will...

- Love God
- Share God's love with others
- Thank Him for the love that He has shown towards Fiji
- Appreciate the great sacrifice made by the early missionaries in sharing the Gospel

### **Biblical references**

John 15:13 There is no greater love than this, that a man lay down his life for his friends.

Matthew 28:16-20 - Go and make disciples of all nations...I am with you always.

Mark 16:15-18 - Go into all the world and preach the Good News...and these signs will accompany those who believe.

Acts 8:26-40 - Philip shares the Good News with an Ethiopian.

Acts 16:6-15 - A call from Macedonia.

Acts 19:23-41 - Trouble at Ephesus

Acts 7:51-60 - Stephen gives his life for Jesus.

2 Timothy 1:11-12 - Paul made sacrifices to serve.

Hebrews 13:15-16; 1 Peter 2:5 - Sacrifices we can make.

Ephesians 5:2 - Jesus gave Himself up for us.

Revelation 2:10 - Faithfulness to the end

Matthew 5:14 - Christians are lights to the world.

Luke 12:35-47 - Faithfulness in serving Jesus.

Matthew 16:24 - Take up your cross.

### **Key Questions**

How did the coming of missionaries change the Fijian culture?

What aspects of the Fijian culture have been preserved and which aspects have disappeared?

What new practices came about because of the missionaries?

What do missionaries do?

Who can be a missionary?

What difficulties were faced by the early missionaries to Fiji?

What is sacrifice?

Was Jesus a missionary?

Why could we say that Jesus made the greatest sacrifice?

What can we learn from the lives of early Christian missionaries?

## Outcomes

Students will

### Knowledge

#### a) *History and geography of the Pacific Islands:*

- understand how to determine Longitude & Latitude using a map
- discern the locations of Pacific Islands on the map
- learn the principles of Pacific Islander navigation and land-finding
- investigate the origins of peoples in the islands they are studying
- learn about migration theories of Pacific Island settlements
- explore the voyaging or sailing/navigation traditions of the Pacific Islands.

#### b) *Missionaries*

- Identify the first missionaries: who were they, where did they come from, and when?
- study the biographies of famous missionaries to the Pacific Islands
- discuss the degrees of impact that the missionaries had.
- on a world map, identify countries that sent missionaries to Fiji and the Pacific Islands.
- develop an awareness of the work of missionaries today
- pray for missionaries and cultures in need of the Gospel
- Compare the differences in sharing the Gospel, past and present.
- Identify problems encountered by missionaries.
- Identify needs of particular nations.

### Skills

- research, record and summarize information
- develop mapping skills
- compare aspects of culture and identify changes

### Values

- appreciate of the courage and sacrifice of missionaries
- hold to the faith foundation laid down by the missionaries
- share God's love with others

## Activities

### a) **History and Geography of the Pacific Islands**

Students can choose to research one or more Pacific Island and share this information with the class, or in a small group.

Using a blank map of the chosen Pacific Island students can mark in:

- Agricultural land
- Forest Zone
- Zone of habitation
- Waterways
- Seas
- Major cities/towns

Create a project or a piece of information based on answers to these questions:

- Why would people leave their homes and go off in search of other islands?
- What would they need to take with them?
- What would life be like on a long ocean journey with no clear destination?
- What are the characteristics of a "good home" on a Pacific Island to an ancient voyager?
- What did this place have to offer the new comers to this island?
- Why would this have been a good place to settle? Is it well-watered or dry? Is it a reef that offers protection?
- Is it sheltered from the winds?
- What were the early canoes like?

- Are there any traditional canoes to be seen today?

#### **b) Missionaries**

- Define the term 'missionary'.
- Discuss the work of a missionary. Discuss the link between meeting practical needs and sharing the gospel.
- Discuss how the values of the Missionaries compared with those of the traditional culture.
- Discuss the influence of missionaries on moving the Pacific Islands towards Western Culture. What were the advantages and disadvantages of this?
- What were the geographic impacts of the missionaries? For example, did they establish districts for administration?
- How are these missionaries viewed today?
- List the types of work a missionary can do, e.g. offering medical aid, feeding the hungry, sharing the gospel through art, music, drama.
- Write a summary of the biography of a famous missionary to the Pacific Islands.
- Invite speakers and watch videos of missionary work.
- Discuss ways of being a missionary in our own nation.

#### **Assessment**

1. Each student can research one country from the Pacific Islands and present this as a project to the class. (The teacher can make sure that a full range of countries have been covered. See research notes in the student book.)
2. What have I learned from the study of missionaries...
  - a. about God?
  - b. about doing what God wants me to do?
  - c. about the Bible?

**Biographies:** James Chalmers, John Paton, Ratu Cakobau; Taufa'ahau

# God is Provider Teacher's Topic Guide Year 6

**Topic: Plants, soil and earthworms**

**Duration: 5 weeks**

## **Spiritual Awareness**

God has provided plants for food, clothing and shelter. In the original creation Adam and Eve and all animals ate only plants. God told Adam to cultivate the soil. Only after the Great Flood was man given permissions to eat meat.

## **Values: Our response to 'God is a Provider'**

- **Thankfulness** to God for the world He has created and for the provision of plants
- **Generosity:** Sharing with others the things that God has provided
- Responsibility in choosing to eat the healthy plant foods that He has provided.

## **Outcomes: Students will**

- Explain the differences in the properties of plants and animals
- List the different classes of plants
- Label the parts of a plant
- Describe the functions of the parts of a plant
- Explain how plants produce their own food by photosynthesis
- Describe the uses of plants
- show interest in gardening
- learn some of the traditional native plant remedies for illnesses
- making inferences about the relationship between soil type and plant growth
- conduct experiments testing plant growth in different soil types
- appreciate resources that God has provided
- understand different soil types
- understand the difference between topsoil and subsoil
- suggest ways of improving the soil
- understand problems deriving from poor soil management (note Exodus 23:10-11)
- understand the responsibility mankind faces in soil conservation
- observe soil types using sight, smell and touch.
- Research the role of earthworms in keeping soil fertile

## **Bible stories and passages**

Genesis 1: 29 Then God said, "I give you every seed-bearing plant on the face of the whole earth and every tree that has fruit with seed in it. They will be yours for food. <sup>30</sup>And to all the beasts of the earth and all the birds in the sky and all the creatures that move along the ground—everything that has the breath of life in it—I give every green plant for food." And it was so.

Genesis 1:30; 2:5; 3:23 - Man was instructed by God to cultivate the soil.

## **Bible verses**

Job 36:28 and 31 – He lets the rain pour from the clouds in showers for all mankind. This is how He feeds the people and provides an abundance of food. (GNB)

Psalm 104:14 - God provides grass for the cattle and vegetables for man.

Psalm 119:86a - God's words can be trusted.

## Key Questions

How does God provide my food?

How can I thank God for my food?

What did God mean when He asked man to cultivate the soil?

What did the first human beings eat according to the Bible?

When did mankind start eating animals?

What problems can there be in trying to grow good crops?

Where did weeds and pests come from?

Were they in God's original perfect creation?

## Activities

### Plants

- Discuss the differences between the characteristics of plants and animals
- Make a table of the various classes of plants: algae, fungi, mosses, ferns, conifers, flowering plants
- Examine the properties of plants: leaves, roots, stems, flowers, seeds
- Study how plants produce food by photosynthesis
- Conduct an experiment to determine the requirements for plant growth: soil, water, light, air
- Grow seeds. Observe and report on the growth rates of plants
- Classify plants according to their uses: food, shelter, shade, clothing.
- Discuss which animals eat plants. Make a list of herbivores, carnivores and omnivores.
- Draw some food chains showing the role of plants in food chains.
- Measure plant growth and graph results.
- Grow a vegetable garden. Add compost to one section and note difference in performance.
- Examine organic and inorganic fertilizers.
- Go on an excursion to identify native plants with healing properties and make a chart to show how these plants can be used to treat illnesses

### Soil

- Collect samples of soil from a variety of sources and place in jars. Include sand, clay, loam, broken down compost.
- Study soil samples using sight, smell and touch. Use a magnifying glass.
- Classify / list soil types and explain how they were formed.
- Explain the difference between topsoil and subsoil.
- Conduct experiment to show the different types of soil particles. Place soil and water in a jar and shake. Allow soil to settle, and watch heavier particles settling first and lighter particle settling last.
- Conduct experiment to show that soil contains air. Place soil in glass jar and slowly pour water over it. Observe rising air bubbles.
- Make soil from rocks by scraping soft sandstone, shale or limestone.
- Compare performance of plant growth in different soil types e.g. fertile garden compost, clay, sand.
- Discuss the practice of allowing land to be fallow.
- List some of the reasons for soil erosion and list ways of preventing it, e.g. planting trees.

# Value education Year 6

## God is Provider

### Stewardship; Civic pride

#### Stewardship is...

- looking after the things we are given
- looking after the things we own
- looking after God's creation
- looking after our own bodies

#### Looking after your things

What things do you own that are of value?

How did you get them?

Why should we look after them?

#### Looking after our school and community

You might think that 'pride' is a bad thing. Pride is bad when you are proud of yourself and think you are better than everyone else; when you look down on others and think of your own importance. However, having pride in our school and community is different. This is a good thing because it is another way of saying we want to look after our school and community. We do not want to see it littered or damaged. We want to help to make it a better place.

#### Looking after our world

Discuss some of these questions:

How is our world different today to the original Creation?

Why is the world as it shouldn't be?

Why should we care about the environment?

What can we do to safeguard creation?

Divide a piece of paper into two halves. On one side draw 'the world as it should be'; on the other side draw 'the world as it shouldn't be but is'.

#### What does the Bible say?

Psalm 24:1 The earth is the Lord's

Psalm 8; Genesis 1:1 What does looking after the environment have to do with God?

# Art Year 6

## God is Provider

### Plants

**Biblical wall art:** "Give thanks to the Lord for He is good." Psalm 107:1

Students add drawings of the things God has provided for us, including plant foods such as fruits, vegetables and grains.

### Drawing

Students can draw the food served at the Passover meal.

### Painting

Encourage students to look at the fine detail of flowers and leaves, and use these shapes as a basis for their art work. They should create the background first and then the plant detail on the background.

### Collage

Tissue paper collage to create plants

### Printing

Leaf prints as part of a design, on a painted background.



# God is Our Saviour Teacher's Topic Guide Year 6

## Topic: Israel and the Middle East

Duration: 3 weeks

### Spiritual Awareness: God loves everyone equally

- God's love embraces all cultures. As Christians, we are commanded to love our neighbour. This extends beyond the person living next door. As in the story of the Good Samaritan, kindness to our neighbour may mean showing compassion to someone culturally different.
- The true meaning of 'loving our neighbour' is to show personal interest and appreciation, and to extend God's love to them.

### Values: Our response to 'God is Love'

- **kindness, patience and gentleness** towards others
- **compassion** towards those who are hurting or in need
- **friendliness, forgiveness and faithfulness**
- **inclusion** of people from all nationalities and cultural backgrounds

### Outcomes: Students will:

- identify some of the countries within the Middle East
- use the world map to locate countries
- research history, geography and culture of Middle Eastern countries
- understand God special plan for Israel in history
- realize that God loves everyone equally and wants everyone to come to know Him through His Son

### Bible stories and passages

- Mark 10:13-16 Jesus loves all the children of the world
- Luke 10:27; Matthew 22:39 Love the Lord with all your heart...and your neighbour as yourself.
- Romans 3:19-26 People could not be made right with God by following the law, so God made another way, so that all nations would have opportunity to come to Him.
- Acts 10:34-36 The gospel for all nations
- Acts 16:6-10 Taking the gospel to the nations

### Bible verses

- John 3:16 For God so loved the world...
- John 13:34 A new commandment...love one another.
- John 15:13 The greatest love
- 1 John 4:16 God is love.

### Activities

- Study the world map. Identify Israel and the neighbouring countries in the Middle East. Identify major seas, rivers and important cities

- Ask the students what they already know about these countries, and what we can learn from the Bible about the history and geography of the Middle East.
- Make a shopping list for a meal you have been asked to prepare that is typical of a country in the Middle East, or prepare a Middle Eastern meal.
- Discuss differences in these lands, past and present, including differences in religion.
- Identify major religions of the countries in the Middle East
- Discuss reasons for constant wars in the Middle East, present day

### **Special study: Israel**

Students will

- Discover God's special purpose for the land of Israel
- Understand that Christianity and Judaism have a common foundation – that we share the Old Testament books of the Bible
- Understand that the first five books of the Bible, written by Moses, together are called the Torah. This is seen as very precious by Jews today.
- Understand some of the history of Israel from Biblical times to present day
- Draw a map of Israel and identify its position in the Middle East Mark some of the Biblical landmarks: Bethlehem, Jerusalem, the Red Sea, the River Jordan, Mt Sinai

Research the following:

- Feasts and festivals, as described in the Bible, (the Christian Education program covers feasts in details)
- The Sabbath
- Every day life in Bible times – food, clothes, houses, education, family, farming, music
- Wars, kings, prophets
- The ark of the Lord
- The temple
- Israelites as slaves
- Geography: rivers, seas, climate, flora, fauna

### **Special study: Egypt**

Students will

- Develop an understanding of Ancient Egyptian culture, including religion.
- Research Biblical accounts of Egypt, e.g. lives of Joseph and Moses
- Understand why God told the Israelites not to worship the gods of the Egyptians
- Compare Ancient Egyptian to modern Egyptian culture.
- Find out what the problems are for Christians in Egypt today.
- Compare cultures/customs, (Ancient and modern).
- Map Egypt's major cities, seas, rivers and surrounding countries.
- Compare a map of Israel and surrounding countries in Biblical times with today.

Research the following:

- Ancient Egyptian writing (hieroglyphics)
- architecture from Ancient Egypt.
- how mummies are prepared

- how the pyramids were built
- farming methods
- customs, dress, jewelry
- religion (gods) and the afterlife
- roles within the Egyptian community

### **Assessment**

1. Students can choose to present information on one country and its culture – either Israel or Egypt.
2. Ask students what they have learned from the study of the Middle East...about God? ...about doing what God wants us to do?... about the Bible?

**Biography:** Dietrich Bonhoeffer, a Christian who fought to save the Jews in World War 11

## **Values education God is our Saviour**

### **Cultural understanding and tolerance**

God created people differently. He loves all people, regardless of race, religion or ethnicity.

#### **Our response to God is our Saviour**

- understand that Jesus died for the whole world, every person of every nation
- recognize that God loves all people equally
- show kindness and consideration to all
- accept and love others

#### **Activities and discussion**

1. Compare cultural traditions of two different ethnic groups in the areas of: food, music, art.
2. The word “tolerance” means accepting other people’s differences. When differences have no impact on morals, then we can accept and appreciate these differences. Explain how appreciating foods, art and music of different cultures can have a positive influence.
3. American culture, slavery was accepted from the 17<sup>th</sup> to the 19<sup>th</sup> century. Would this be an appropriate aspect of culture for another people group to accept, appreciate and take on?
4. Some countries still practice slavery today. Find out about this.

#### **What does the Bible say about accepting people of different cultures?**

- Luke 10:25-38 The Good Samaritan
- John 3:16 God so loved the WHOLE world that He gave His son
- Revelation 7:9 After this I looked, and there before me was a great multitude that no one could count, from **every nation**, tribe, people and language, standing before the throne and before the Lamb. They were wearing white robes and were holding palm branches in their hands.
- Matthew 22:37-39 Love the Lord your God. Love your neighbour as yourself. (Neighbour refers to people of other nationalities)
- John 4:1-26 Jesus and the Samaritan woman.

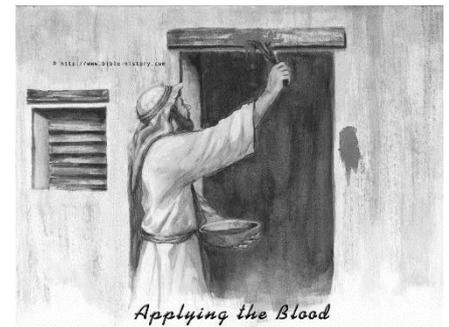
# Art Year 6

## God is our Saviour

### Israel and the Middle East

**Bible wall art caption:** For God loved the world so much that He gave His only Son, so that whoever believes in Him should not die, but have everlasting life. John 3:16

#### Israel



Make a poster showing the significance of the Passover meal.

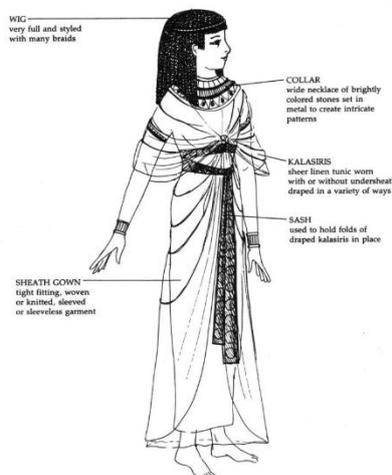
Draw the plate and explain the symbols.

#### Ancient Egypt

Draw some ancient Egyptian wall art. Include some hieroglyphics.

Make some Egyptian jewelry.

Draw a typical lady of Ancient Egypt showing the fashion of the day.



# God is Pure and Holy Teacher's Topic Guide Year 6

## Topic: Light and the eyes

Duration: 4 weeks

### Spiritual Overview: God is Light

God created light on the first day of creation. Light is essential to life. God Himself is light.

Light is a symbol of goodness and purity, as opposed to darkness (a symbol of that which is evil). God wants us to walk in His light and live a life of purity.

God is light. To walk in God's light is to walk in purity. To exclude God is to walk in darkness. Before the sun was created, the earth was illuminated by God's own light. From the book of Revelation we understand that God's light will not allow any darkness or night in the Kingdom. Jesus Christ is a light to the world. As Christians we should reflect this light so that others may see Him.

### Values: Our response to 'God is Pure and Holy'

- **Integrity:** always doing the right thing; showing the Fruit of the Spirit in our lives
- **Civic pride:** keeping our environment clean; obeying the law
- **Respect** for what is right
- Showing **obedience** to God by doing the things He wants us to do; admitting when we make mistakes and asking for God's forgiveness.
- understand that to live in God's light, we need to be forgiven for our sin
- understand that to live in the light we need to follow God, trust and obey and read His word.
- understand that as Christians we need to daily ask God's forgiveness for the wrong things we have done so that we become pure and blameless in God's sight

### Outcomes: Students will

- explore the properties of light, including reflection, refraction, spectrum and shadows
- make a study of the eye
- Explain the Biblical parallel between light, (things of God), and darkness, (things of Satan)

### Bible stories and passages

Genesis ch 1 God said "Let there be light."

Matthew 5:13-16 Christians as salt and light.

Galatians 5:22 Goodness is a fruit of the Spirit.

Ephesians 5:8-11 Live as children of the light.

Matthew 6:22-23 If your eye is clear your whole body will be full of light.

The parables: Seeing with spiritual eyes in order to understand the meaning.

### Bible verses

1 Peter 2:9 He has brought you out of darkness into His wonderful light.

Romans 13:12 Put on the armour of light.

John 8:12 Jesus said, "I am the light of the world. Whoever follows me will have the light of life and never walk in darkness."

1 John 1:5 God is light and there is no darkness at all in Him.

1 John 1:7 If we live in the light, just as He is in the light, then we have fellowship with one another, and the blood of Jesus, His Son, purifies us from every sin.

### Key Questions

- What is light?
- How does light make you feel?
- What is darkness?
- How does darkness make you feel?
- Why does light remind us of the things that come from God?
- Why does darkness remind us of things that come from Satan?
- What does the Bible mean by 'walking in the light'?
- Who is the light of the world?
- How is life dependent on light?
- Has God always been there?
- What is the meaning of the word 'create'?
- Why did God call the light 'good'?

### Activities

- Define a star. Compare the light of a star to the light of a planet.
- Use models to demonstrate an eclipse of the moon or sun, what causes day and night, what causes tides and what creates our year of 365.25 days.
- Explain what is meant by a light year. Relate how long sunlight takes to reach the earth and name the nearest stars to earth.
- Draw constellations and recognize them in the night sky.
- Conduct shadow activities with a torch.
- Make a shadow stick and measure shadow length.
- Look at light through materials: transparent, translucent, opaque.
- Make a spectrum to see colour and rainbows.
- Explore light rays that are both reflected and refracted.
- Explore the possibilities of flashlights e.g. large, small, for strength and distances of beam.
- Study the eye and relate this to the camera.
- Study some optical illusions.
- Study light and reflection associated with road transport e.g. reflectors, car lights, rear vision mirrors, traffic lights, flashing lights, illuminated signs.
- Research the history of lighting.

### Assessment

1. Draw a diagram to show how light rays can be reflected or refracted.
2. Explain the meanings of transparent, translucent and opaque.
3. What have I learned from the study of light and colour...
  - a. about God?
  - b. about doing what God wants me to do?
  - c. about the Bible?

### Learning Connections

**History:** History of lighting

**Mathematics:** measure length of shadows and beams

**Art:** Colour mixing; light and dark colours / tones; shadow puppets

**Health:** Care of the eyes

# Year 6 Values

## God is Pure and Holy

### Responsibility

#### Responsibility is...

- Being willing to be accountable for your behavior
- Acting in a mature way
- Being in charge of a person, a group of people, or material things

Being responsible is a sign of maturity. Parenting requires a great amount of responsibility. A baby depends on its parents to care for it in a responsible way. To be away from the baby, the parents will have to organize a baby sitter.

#### A responsible person...

- does whatever they agree to do. They follow through on their commitments.
- answers for their own actions. They don't make excuses or blame others for what they do. They accept their responsibility of being in charge.
- takes care of their own matters. They don't rely on others to remind them when they are supposed to be somewhere or what they are supposed to bring.
- is trustworthy. If somebody lends them something, that person knows it will be taken care of, and returned.
- makes good judgments, wise decisions and wise choices.
- doesn't put things off. When they have a job to do, they do it.

#### Activities

1. Make a list of jobs a responsible parent has to do when caring for their baby.
2. Make a list of responsibilities YOU have in your life at the moment.
3. Make a list of things you could improve on to become a more responsible person.

#### What does the Bible say about responsibility?

Luke 16:1-10 The parable of the dishonest manager

# Art Year 6

## God is Pure and Holy

### Light and the eyes

**Wall art text:** Live like people who belong to the light. Ephesians 5:8

#### Visual observation

**Aim:** To encourage the students to use their eyes to see in detail the things around them, and to develop the skill of visual observation.

- Look through a small hole in a piece of cardboard. Take your cardboard outside and look at plants, trees, flowers, grass, stones. Look at these things carefully.
- Paint some of the things you saw outside.

#### Painting: experimenting with colour

- Experiment with primary colour, mixing to make other colours.
- Create a colour wheel using the colours of the rainbow.
- Paint a composition using warm colours.
- Paint a composition using cool colours.
- Paint a composition using earthy colours, e.g. browns, reds, oranges
- Paint a watercolour scene using wet paper and a sponge. Watch how the colours merge together.
- Paint a colourful scene, e.g. snorkelling on a coral reef; a flower garden
- Paint a colourful scene, e.g. fireworks; an explosion in the paint factory

#### Painting: tone and hue

- Create a 'wash-off' painting. First paint the page with thick white paint. Allow to dry. Now paint with thin black paint. Wash off.
- Make a charcoal drawing and paint over it with a thin wash.
- On a practice piece of paper, practice blending black and white in various tones.
- Now paint a scene of your choice using only black and white paint.
- On a practice piece of paper develop various hues of one colour, e.g. if you choose green, start with white, then add a tiny bit of green for light green. Then add more, little by little, until you have dark green. Show the colours on your page from lightest to darkest.
- Paint a scene of your choice using white and one other colour. Try to include as many hues as possible.

# Practical Science Year 6

## Topic: Light

### Split light to make a rainbow

[http://www.madaboutscience.com.au/store/index.php?main\\_page=page&id=40](http://www.madaboutscience.com.au/store/index.php?main_page=page&id=40)

Split light without a prism Want to make a rainbow but don't have a prism? Here's a simple way to make one anytime the sun is shining. Suitable for kids aged 5 +

#### What you need:

- Shallow dish
- White wall (or large piece of white paper/card)
- Small mirror
- Water
- Sunlight (the stronger the better)

#### What to do:

1. Pour some water into the shallow dish.
2. Place the small mirror in the water and prop it at an angle against the side of the dish.
3. Put the dish near a sunny window and position the mirror so that sunlight bounces off it onto a white wall.
4. If you don't have a white wall, you can use a large piece of white card or paper attached to the wall.
5. You should see a faint rainbow appear on the white wall or paper. If not, adjust the mirror until you see it.

#### How does it work?

The water in the shallow dish acts like a prism. When the sunlight travels from air into water it slows down and bends. The seven different colours that make up white light travel at different speeds and therefore bend at slightly different angles. The mirror reflects the different colours so the rainbow spectrum appears on the wall.

# Practical Science Year 6

## Topic: Light

### Bend a Straw with Your Eyes (Optical illusion)

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

Using the power of your eyes, bend a straw sitting in half a glass of water without even touching it! It sounds like magic but it's really another amazing scientific principle at work.

#### What you'll need:

- A glass half filled with water
- A straw
- 2 eyes (preferably yours)

#### Instructions:

1. Look at the straw from the top and bottom of the glass.
2. Look at the straw from the side of the glass, focus on the point where the straw enters the water, what is strange about what you see?

#### What's happening?

Our eyes are using light to see various objects all the time, but when this light travels through different mediums (such as water & air) it changes direction slightly. Light refracts (or bends) when it passes from water to air. The straw looks bent because you are seeing the bottom part through the water and air but the top part through the air only. Air has a refractive index of around 1.0003 while water has a refractive index of about 1.33.

# Practical Science Year 6

## Topic: Light and the eyes

### Find your blind spot

#### You will need:

Two symbols drawn on a piece of paper: a cross and a target



#### What to do:

1. Hold the paper up to your face, so that the cross is in front of your right eye.
2. The picture of the 'target' should be to the right of your face
3. Close your left eye. Focusing on the cross, slowly move the paper away from your face.
4. As you move the page away from your face, you notice that at some point you can't see the 'target' within your peripheral vision; you've found where your blind is!
5. Why Does This Happen?
6. The blind spot occurs due to the structure of the eye. When light travels it reaches the back of the eye, it's wavelength is interpreted by the group of cells collectively called the retina.
7. In the middle of the retina is an area called the fovea, a place where many blood vessels are located. As there are no cells that detect light within the fovea, there is a natural 'blind spot' created in your field of vision. Luckily your eye moves up to 3 times a second, adjusting for this blind spot!

<http://www.fizzicseducation.com.au>

# God is Creator Teacher's Topic Guide Year 6

## Topic: Creators and Builders

Duration: 5 weeks

### Spiritual Awareness:

God is the master creator, the creator of all. Humans can never create in the same way as God does, but because we are made in His image we do have the ability to create. Because God is the source of creativity, He can give us new ideas if we ask Him to lead and guide us in our daily activities.

God has also given creativity to the animal kingdom. We see this in the amazing ability many animals have to build homes.

### Our response to 'God is Creator'

Because God is Creator I will...

- Appreciate the wonder and beauty of His creation
- Care for His creation
- Believe that God is a miraculous Creator and created the universe as He told us in Genesis Chapter 1.
- Thank God for the creativity that He gives me
- Put into practice my creative gifts

### Biblical references

Matthew 25:14-29 Parable of the talents

1 Kings 6 and 1 Chronicles 29:1-9 King Solomon's Temple

Exodus 31: 1-6 The Lord said to Moses, "See, I have called by name Bezalel the son of Uri, son of Hur, of the tribe of Judah, and I have filled him with the Spirit of God, with ability and intelligence, with knowledge and all craftsmanship, to devise artistic designs, to work in gold, silver, and bronze, in cutting stones for setting, and in carving wood, to work in every craft... Eph 2:10 We are God's workmanship.

Col 3:23-24 Whatever you do, do it with all your heart, as if working for the Lord.

### Key Questions

What is creativity?

Who do you know that is creative? What do they create?

Which animals display creativity?

What creative things can I do for God?

How can I develop my talents?

What is the meaning of 'practice makes perfect'?

Which examples of creativity require patience and perseverance?

Which examples of art work have been inspired by nature, e.g. colour and shape?

Why were the best and most beautiful materials used in King Solomon's Temple? (1 Chron 29:1-2)

### Outcomes

Students will

#### *Knowledge*

- Understand of the ways in which particular animals demonstrate skills in building techniques
- Identify creative gifts in people.
- Gain an understanding of creative art and architecture
- Study the major inventions throughout history that have improved our quality of life
- Study the creative talents used in the building of Solomon's Temple

### *Skills*

- Research, observe and report on building techniques of animals
- Creative problem solving and inventing
- Strive to excel in a personal creative skill

### *Values*

- Use their gift of creativity.
- Appreciate creative gifts and talents in others.
- Show patience and perseverance in developing a creative skill.

### **Activities**

- Observe animal homes, and identify those animals that show skill in building e.g. spiders, birds, silk worms, beavers.
- Classify animals according to the types of homes they build.
- Compare materials, methods and standards of neatness adopted by home builders.
- Draw and label animal homes.
- Make a model of an animal home e.g. a bird's nest, a spider's web from wool and a forked branch.
- Compare skills of animal builders to crafts and building techniques used by humans, e.g. spinning and weaving, basket weaving, dam building.
- Make a list of creative skills, e.g. art, dance, music, drama, story writing, cooking, wood carving, designing clothes, designing buildings (architecture)
- Take a survey of special creative skills of students within the class.
- Make a graph to record creative strengths of class members.
- Present an oral report on a creative activity you are involved in.
- Invite visitors to demonstrate their creative skills.
- Discuss the importance of practice in becoming better at a skill.
- Research significant inventions throughout history

### **Assessment**

What have I learned from the examples of animals...

- about God?
- about His creatures?
- about my own special abilities?

### **Learning Connections**

#### **Art:**

- Make spider webs from branches and wool; work with threads and textiles.
- Design and construct models of buildings
- Study great works of architecture
- Draw Solomon's Temple from the Biblical description.

**Biography:** Jacob Vouza

# Values education Year 6

## God is Creator

### Creativity

God is an amazing creator. He wants me to be creative too. He wants me to look for new and better ways of doing things.

#### Creativity is...

- asking the Holy Spirit to give me His ideas
- using my talents for God
- inventing new things
- coming up with new ideas
- making things

God has created you as a unique being. Nobody is exactly like you or has your special combination of talents.

#### Activities

1. Imagine that you are marooned on a desert island. You have your sailboat, which has been washed ashore. There are a few provisions... a bag of rice, a packet of matches, a water bottle and a tin of baked beans. Describe how you would survive for a week, as you wait for your rescuers to find you.
2. Devise some new and interesting ideas for spending a one-week holiday at home. Make a plan and show what you will do each day.
3. Design something original. It can be a piece of art, an article of clothing, a building, a playground or a new food dish.
4. Imagine that you are an inventor and a problem solver. You have to come up with ideas for improving life on Planet Earth. Choose 3 of these areas: environment, technology, education, medicine, transport, housing, entertainment

#### What does the Bible say about being creative?

John 16:13 The Holy Spirit guides us.

Psalms 33:2-3 Sing to the Lord a new song.

1 Chronicles 28 God gave the plans for the building of Solomon's temple.

Isaiah 43:19 See, I am doing a new thing

# Art Year 6

## God is Creator

### Creators and builders

**Wall art text:** Before I formed you in the womb I knew you. Jeremiah 1:5

**Everyone can be creative!**

#### **Drawing**

Students can work in pairs and draw each other's portrait. They can decide whether it will be a full-face portrait or profile (side on). The drawings can be placed on the display board with the text from Jeremiah 1:5.

#### **Art history**

- Study some work of architecture
- Study and draw Solomon's Temple from the Biblical description.

#### **Construction**

- Design and construct models of buildings. Students can work in groups. Use creativity to develop something different, original and artistically pleasing.

- Students can use construction materials freely in problem solving activities

Make available a variety of constructions materials for the students to work with.

Students can make something of their own choice. Some suggestions can be given:

- a boat
- a shelter
- a toy
- a vehicle
- a children's playground

# God is Wise Teacher's Topic Guide Year 6

**Topic: Health and fitness**

**Duration: 4 weeks**

## **Spiritual awareness**

We can ask God for wisdom concerning the best way to keep the body fit and healthy. We have a responsibility to ourselves, others and our Creator to make wise food choices and show self-control when faced with less healthy food and drink options. God has provided a wealth of healthy foods in His creation.

## **Bible references**

Genesis 1:29 God created plant foods for our health

1 Corinthians 6:19-20 Do you not know that your body is a temple of the Holy Spirit within you, whom you have from God? You are not your own, for you were bought with a price. So glorify God in your body.

1 Corinthians 10:31 So, whether you eat or drink, or whatever you do, do all to the glory of God.

Genesis 1:29 And God said, "Behold, I have given you every plant yielding seed that is on the face of all the earth, and every tree with seed in its fruit. You shall have them for food."

Genesis 9:3 Every moving thing that lives shall be food for you. And as I gave you the green plants, I give you everything.

1 Corinthians 9:27 But I discipline my body and keep it under control, lest after preaching to others I myself should be disqualified.

1 Corinthians 3:16-17 Do you not know that you are God's temple and that God's Spirit dwells in you? If anyone destroys God's temple, God will destroy him. For God's temple is holy, and you are that temple.

Proverbs 25:27 It is not good to eat much honey, nor is it glorious to seek one's own glory.

## **Outcomes**

Students will

### *Knowledge*

- understand the food requirements for a healthy body
- appreciate the range of healthy food that God has provided
- discern between healthy and not-so-healthy food
- develop disciplined eating habits
- identify local and imported foods
- identify processed and unprocessed foods
- identify the primary source of processed foods
- classify foods according to certain food groups
- discover the causes of physical and chemical changes that occur when preparing food
- understand factors causing food deterioration

### *Skills*

- classify food types
- research food value
- record and present information food for health

- pose questions about the chemistry of food
- prepare food
- observe chemical processes and changes to food such as formation of solids and liquids, dissolving of substances

#### *Values*

- appreciate natural foods, (foods from God's creation)
- appreciate the health benefits of natural foods
- be willing to be involved in preparing food and see the health benefits of home-made food as opposed to junk food and fast food

#### **Key questions**

Why should we eat a wide variety of plant foods?

What different coloured vegetables can you think of?

Why should we eat lots of different coloured vegetables?

What are vitamins and minerals and why are they important?

Why are green vegetables important?

What kind of food can prevent our body from working well? (sugar and junk food)

Which fruits grow on trees?

What is a fruit? (The part of the plant that contains seeds)

Where do potatoes, yams and carrots grow?

Can you think of any other vegetables that grow under the ground?

Can you think of any vegetables that are the stems of plants? (celery, asparagus)

Which vegetables are the flowers? (cauliflower and broccoli)

Which are leaves? (spinach, cabbage)

Which are seeds? (cereals)

What does a plant need in order to grow? (light, water, air, soil)

#### **Activities**

- Classify plant foods according to fruits, vegetables, herbs, seeds, (cereals).
- Make a collection of seeds we eat.
- Classify foods according to plant or animal sources.
- Classify foods according to processed or unprocessed.
- Classify foods according to nutritious, 'junk food' or in between. Devise a scale and show information on a graph.
- Recognize foods by playing identification games using sight, taste, touch and smell.
- Prepare some healthy food, following a recipe.
- Devise a menu for a balanced meal.
- Compile a cook book.
- Invent a new recipe.
- Observe physical and chemical changes that occur during food preparation e.g. changes from liquid to solid or solid to liquid, (melting, setting / solidifying), dissolving, rising, expansion.
- Find out places where different foods are grown and show these on a map.
- Read and analyze food packaging labels.
- Decide whether food advertisements are telling the truth.

- Design an advertisement or poster for healthy food.
- Investigate deterioration of food due to age or warmth and explore the growth of moulds on foodstuffs.
- Record and graph times for deterioration of foods left unrefrigerated.
- Compare use-by dates on packages.
- Measure masses and volumes of cooking ingredients; weight vegetables.
- Research and compare cost of foods.
- Grow some vegetables and/or herbs: record the growth rates; describe stages of growth.
- Game: *Play animal or vegetable?* One student thinks of a food that is animal or vegetable but does not disclose the food he/she is thinking about. e.g. a banana. Class members take turns to ask questions in order to guess the name of the food. The questions must be able to be answered 'yes' or 'no'. e.g. Is it animal? Is it red? Does it grow on a tree?

#### **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**

#### **Learning Connections**

##### **Assessment**

What have I learned from the study of food...

about God? about the Bible? About my responsibility to keep healthy?

# Values education Year 6

## God is Wise

### Planning ahead

#### Wisdom is ...

- being organized with your affairs
- planning ahead

#### Discussion

Think about ways in which you would prepare for these things:

#### **a) a family holiday**

Make a list of the things you would need...

- for a summer camping holiday by the beach.
- for a holiday in the snow.

#### **b) different kinds of weather**

How do people prepare for bushfires? droughts? hot sun? floods? cold weather? snow?

#### **c) earthquakes**

How do people measure the likelihood of an earthquake in a particular area? How do people prepare for it? What precautions would be taken by town planners? What kind of buildings might be chosen in earthquake prone areas? How might an earthquake drill be carried out in a school? What preparations would be made by emergency services?

In order to prepare for the future we need to think ahead. Thinking ahead is being wise and responsible. It is opposite to being lazy. Laziness prevents us from being aware of the future. Can you think of ways in which you can be wise and responsible around the home?

#### **What does the Bible say about laziness?**

Proverbs 19:15 Laziness makes us sleepy.

Proverbs 6:6 The wisdom of the ant.

Proverbs 19:5 Warning against laziness

Matthew 6:19-21 Wisdom in storing up heavenly treasure.

Matthew 7:24-28 The wise and foolish builders.

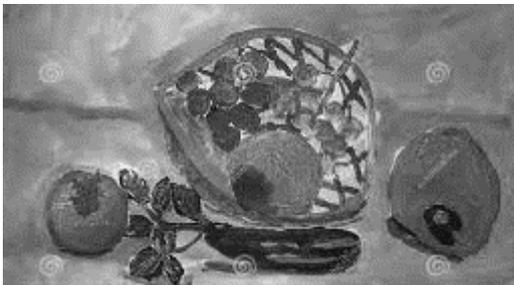
# Art Year 6

## God is Wise      Healthy food

**Biblical wall display and text:** And God said, “Behold, I have given you every plant yielding seed that is on the face of all the earth, and every tree with seed in its fruit. You shall have them for food.”  
Genesis 1:29

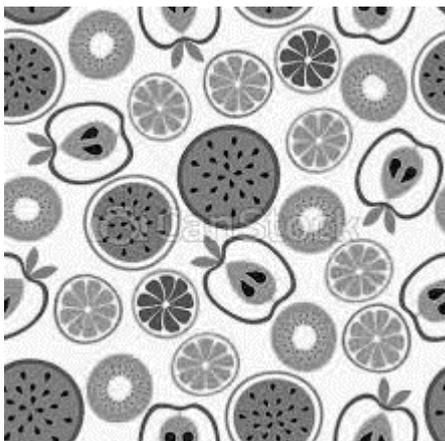
- Draw food plants, as you would find them growing in the ground. Label the edible part of the plant – root, leaf, stalk, stem or flower. (A potato is a swollen underground stem called a tuber).
- Make vegetable prints: cut vegetables and print them onto paper. Use a dish-washing sponged soaked in paint for a stamp pad.
- Make a vegetable man or vegetable animal  
Provide potatoes, carrots, spinach. Children can use toothpicks to put together pieces of vegetables, to form a character or an animal. Ask them to write a description of how they made it. e.g. “This is my vegetable man. I used a potato for the body, a piece of carrot for the head and spinach for the hair”.

### 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.



# Transport, Tools, Machines: Teacher's topic guide

## God is a Servant Year 6

### **Spiritual Awareness: Using the power in God's creation for reaching the world**

God has placed within the creation, forces that serve man. Machines give us the power to perform tasks with comparatively less effort. The development of machines, transport and technology has facilitated the spread of the gospel.

God has also given us His power for sharing the Gospel. His power enables us to achieve greatly beyond what our human resources can achieve. As God's servants, we must rely on His power when sharing our faith.

### **Values: Our response to 'God is a Servant'**

- **Service:** follow the example of Jesus, the greatest servant
- **Appreciation** of God's gifts to us through His creation
- **Enthusiasm** for sharing our faith
- **Creativity** in using the tools God has given us to use in serving Him

### **Bible Passages and stories about serving God by sharing the Gospel:**

Luke 4:18; 7:22 Jesus came to bring the Good News

Mark 16:14-20 "Go into all the world..."

Matthew 28:18-20 - Jesus said, "All power in heaven and on earth is given to me. So go and make disciples of all nations..."

Romans 10:14-17: How can they believe if they have not heard the message? And how can they hear if the message is not proclaimed? And how can the message be proclaimed if the messengers are not sent out? How wonderful is the coming of messengers who bring the Good news.

Ephesians 6:15 Stand ready with truth as a belt right around your waist, with righteousness as a breastplate, and your shoes to announce the Good News of Peace.

The book of Acts: Paul traveled by boat to share the Good News.

### **Outcomes:** Students will

#### *Knowledge*

- demonstrate application of the following simple machines: lever, wheel and axle, inclined plane, screw, wedge
- explain how a pulley works
- explain how the wheel allows things to move
- understand that the use of the machines involves less effort to perform work than would be required in their absence
- illustrate the significance of machines in everyday life
- appreciate the value of tools and objects that allow us to do work more effectively and efficiently and with greater ease
- identify the function and purpose of tools and machines
- experiment with some tools and machines and record observations
- explain how machines have served us in facilitating the spread of the Gospel
- identify ways in which technology can be used to spread the Gospel today, e.g. internet

### *Skills*

- make predictions and test them
- devise experiments and record results
- compare
- draw conclusions
- Be willing to serve God and others

### **Activities**

- Free play with levers, wheel and axles, inclined planes and pulleys.
- Use levers to lift substantial weights in the playground. Use the same pivot point but alter the length of the lever.
- Draw levers in action: spades, scissors, bottle openers, pliers, fishing rod.
- Vary the length of an arm and position of load on a lever and measure the effort required to move the load.
- Use tools and machines to move a load of books across the floor and on to a table.
- Try lifting a load with, and without a pulley. Compare the amount of force required for both tasks.
- Lift the same load with a double pulley system. Two single pulleys can be used in one system and then a double pulley system. Compare the amount of effort required for each system. Compare the amount of distance the rope travels through the various systems.
- Tie a solid toy to a spring balance and measure the force necessary to lift the toy vertically over a distance of 50 cm. The same toy, connected to the spring balance, can be pulled up a 50-cm. high ramp, 70 cm. long, and the force compared. Children can predict result for different gradations of ramps.
- Discuss application to transport modes.
- Research the development of the car.
- Design a 'crazy machine' or a machine of the future as an art activity.
- Make a machine.
- Discuss how machines have facilitated the spread of the Gospel. Consider the printing press, transport modes, computers.
- Research the lives of famous inventors and their inventions: James Watt, (steam engine); Elias Howe, (sewing machine); John Gutenberg, (printing press); Samuel Morse, (telegraph); Alexander Bell, (telephone); Thomas Edison, (electric light); Orville and Wilbur Wright, (aeroplane); Guglielmo Marconi, (wireless); John Baird, (television); John Holland, (submarine); Von Braun, (space rocket)
- Identify levers in the human body (e.g. arm) and discuss God's design for our bodies.

### **Assessment**

1. Design and make a machine. Demonstrate and explain to the class how it works.
2. What have I learned from the study of tools and machines about serving God?

**English:** Biographies of famous inventors

**Social Studies/History:** History of transport and effects of transport on the community

**Health:** Road safety; safety with machines

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**Art:** Design a machine of the future; Make models of vehicles

# Science Year 6

## God is Wise

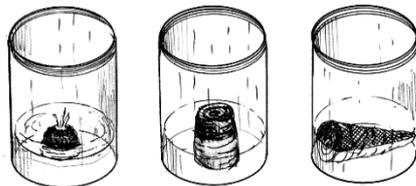
- Grow a bean seed on the inside of a glass jar, covering it with a layer of paper towel. The seed goes between the paper towel and the glass. Keep the paper towel wet and expose the jar to light. Do the same experiment but place the jar in the dark. Will the seed germinate?
- Students can make a journal to show development of the bean seed, giving dates: when 'planted' between glass and paper towel; when the root appeared; when the shoot appeared; when the first green leaves were seen. They can draw and describe the stages in the growth of the bean seedling.
- Classify fruits and vegetables: Students can group fruits and vegetables as follows: seeds; stalks; stems; roots; fruits; flowers; leaves.



- Grow new vegetables from old ones:

### Carrots

1. Take a fresh carrot and three clear glass jars, each the same size.
2. Cut the carrot so that you have three different parts.
3. Place each of the parts in a jar of water. Label the jars 1, 2 and 3. Make sure that the jars have the same amount of water and sunlight.
4. Leave the parts in the water for a week or two until some shoots have appeared.
5. Children can keep a diary on observations. Which part of the carrot created new shoots?

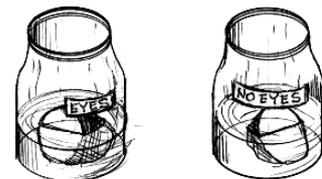


### Potatoes

The dark spots on a potato are the eyes. Potatoes left too long in the cupboard will have roots growing from them.

#### Experiment:

1. Cut two pieces from a potato, one with eyes and one without.
2. Place each piece in a jar of water, and leave them there for one week. Make sure both jars have the same amount of water.
3. Students can describe the results of the experiment. (Only the potato with eyes will grow shoots.)



# God is A Servant Teacher's Topic Guide Year 6

## Topic: Transport, tools & machines      Duration: 4 weeks

### **Spiritual Awareness: Using the power in God's creation for reaching the world**

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- Identify levers in the human body (e.g. arm) and discuss God's design for our bodies.

### **Assessment**

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# Values education Year 6

## God is a Servant

### Enthusiasm

#### Enthusiasm is ...

- having a positive attitude about the things you do
- not looking on the bad side of things
- putting all your energy into the job you are doing

To be good at something we need to put all our energy into it.

We need to get on with the job with a cheerful attitude. This can inspire the people around us to do the same.

1. Who do you know that is enthusiastic about the job they do?
2. How can enthusiasm make a sports team play better?
3. How can enthusiasm help people get a job done better?
4. Make a list of some of the things you are enthusiastic about.

#### What does the Bible say about enthusiasm?

Ecclesiastes 9:10 Whatever your hand finds to do, do it with all your might.

Philippians 2:14 Do all things without grumbling or complaining

# Art Year 6

## God is a Servant

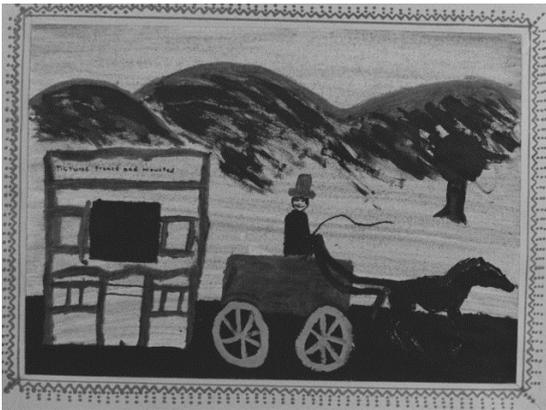
### Tools, transport and machines

**Biblical wall art and text:** How can the message be proclaimed if the messengers are not sent out? How wonderful is the coming of messengers who bring good news! Romans 10:15

**Transport and technology are means of spreading the Good News!**

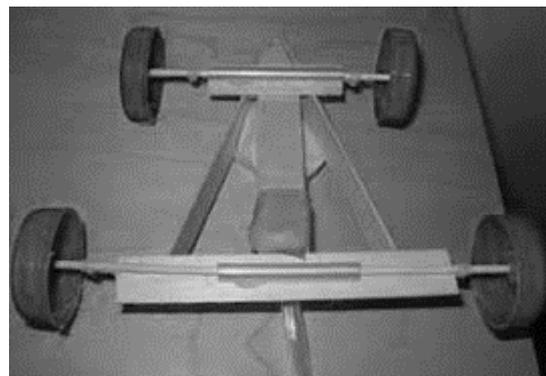
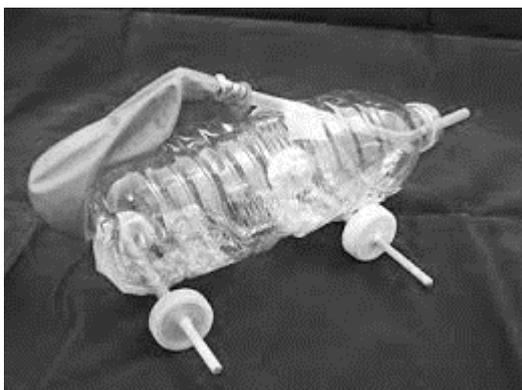
#### Painting and drawing

Make a display showing transport from early times, today and projections of transport in the future. Students can choose their subject: past, present or future.



#### Construction

Collect bottle caps. Students can construct a vehicle that moves, using skewers for axles, and other construction materials such as cardboard boxes and straws. For boats, they can experiment with balloon power to make the boat move in water.



# Practical Science Year 6

## God is a Servant

### Topic: Tools, machines, technology

#### 1. Elastic spring

##### What you will need:

A collection of rubber bands

Pencils

##### What to do:

Wind and turn an elastic band between two pencils.

Let it unwind.

This is how a spring works.

#### 2. Design a catapult

[http://www.primaryscience.ie/media/pdfs/col/Design\\_a\\_catapult\\_activity.pdf](http://www.primaryscience.ie/media/pdfs/col/Design_a_catapult_activity.pdf)

##### Information:

- When a force acts on an object that cannot move, it may change its size or shape.
- Some things (e.g. plasticine/ modelling clay) stay in the new shape when the force is removed. But some substances, like rubber, return to their original form when the force is removed. The latter are called ELASTIC substances.
- Elastic materials store energy when they are stretched, and release the energy when the force is removed. So energy is stored in stretched rubber bands (this is the energy which you have put into it to stretch it). This energy is released when the rubber band is let go and it goes back to its original size.
- Elastic things will not stretch forever! They will snap if you stretch them too far.
- This activity also shows the strength of the triangle. The triangle is a shape often used in architecture because of its strength.

##### Questions:

What do you use rubber bands for?

What is the advantage of rubber bands over a piece of string? (They stretch).

When you stretch a rubber band what does it do? (It gets longer).

When you let it go again what does it do? (It goes back to its original size).

Do you think a trampoline is elastic? (Yes!)

What happens to a trampoline when you jump on it? (It stretches downwards).

Then what happens? (It goes back to its original shape, releasing the stored energy and pushes you up in the air)

## Types of catapults

See pictures below

### What to use

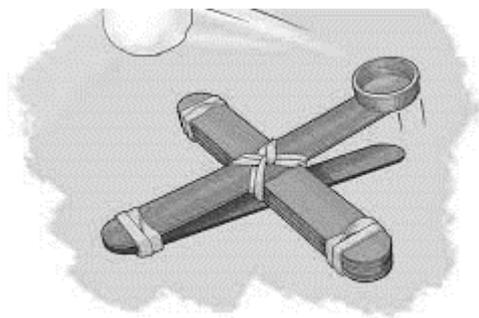
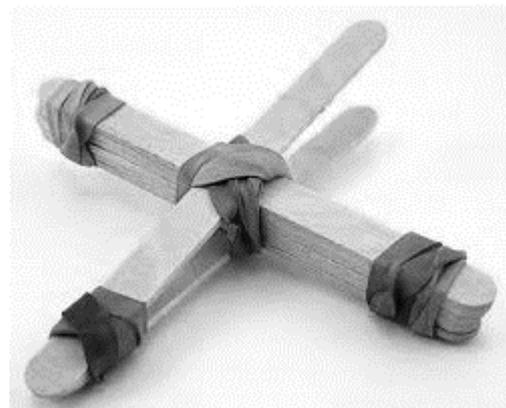
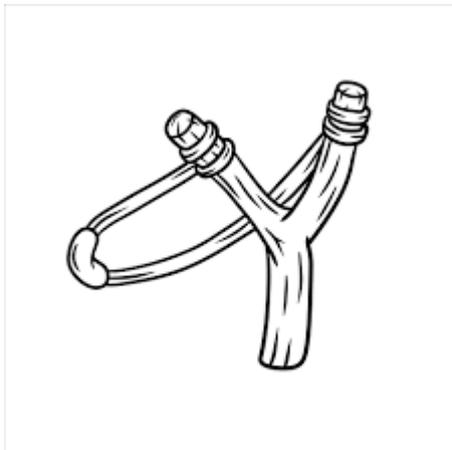
Rulers, rubber bands, small tissue paper 'bullets'

### Safety:

Although paper is soft the bullets should not be aimed at anyone.

There are a large number of ways in which the principle of stored energy is used to make catapults.

The children should be encouraged to design and make their own catapults.



## Practical Science: Tools, machines, technology

### 3. Pulleys

<http://www.primaryscience.ie/media/flash/act31/index.html#>

#### Question 1: Do you know what a pulley is?

A pulley is a simple machine with a wheel that has two raised edges. The edges allow a rope or string to run around the wheel without falling off.

A pulley can also be called a block and tackle.

#### Question 2: Can you think of where pulleys are used?

Pulleys can be used in lots of different ways. They can be used to lift heavy things, so you might find them on building sites. Have you been in a lift recently? How do you think the lift was able to move up and down between floors?

#### Question 3: Where else might you find pulleys being used?

Pulleys can be used to move things, like pulling clothes along a clothes line in the garden, or moving a cable car from one side of a valley to another.

#### Make a pulley

You will need:

- A bucket
- A weight
- Rope
- A rolling pin

Attach one end of your rope strongly to the bucket handle.

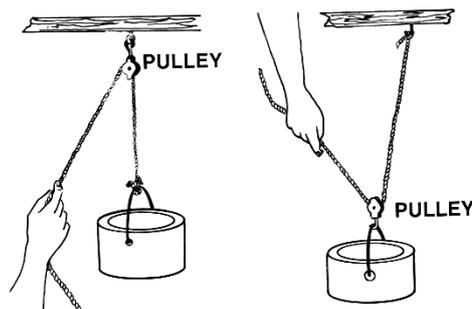
Put a weight in the bucket, e.g. stones

Place the rolling pin on a desk or table, with one end hanging over the desk.

Get two people to hold the rolling pin down firmly so that it doesn't move.

Now put the other end of the rope over the end of the rolling pin hanging over the desk, and lift the bucket by pulling DOWN on the rope.

Test to see whether the bucket is easier to lift by the pulley method: (pulling down), or by just lifting it up from the floor without the pulley.



## Practical Science: Tools, machines and technology

### 4. Levers

<http://nationalgeographic.org/activity/simple-machine-challenge/>

#### Definition of work:

The definition of work used in science may differ from what most people think of as work. Work can be defined as applying a force over a certain distance.

#### Exercise:

Move a book from one desk to another.

*This is work by the scientific definition, because you are applying force for a certain distance.*

#### A lever makes work easier

An example of a machine making work easier: The claw of a hammer to remove a nail.

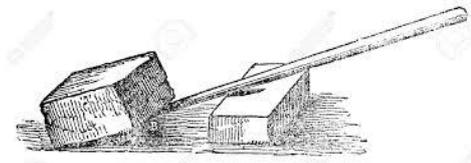
A small force applied to the handle of the hammer produces a greater force at the claw end of the hammer, allowing for the removal of nails.

Other examples of levers: A see saw; scissors; a door handle

#### Make a lever from a ruler

##### You will need:

- a firm ruler (or other long, firm, flat object)
- a pen or pencil
- a stack of books



#### Make a lever

Use a ruler and pencil to make a lever to lift the books.

Does it feel easier or harder to lift the stack of books when using the ruler as a lever instead of lifting them straight up?

## Practical Science: Tools, machines and technology

### 5. The wheel and axle

The wheel and axle use rotational movement to make work easier. When effort is applied to the wheel, it produces movement in the axle, and when it is applied to the axle, it produces movement in the wheel.

#### Observation

Distribute small toy cars that have wheels joined by axles to groups of students.

#### Discussion

How do these toy cars move?

How are the wheels on each side of the car joined to each other? (the axle)

Which common machines use only one wheel? E.g. a wheelbarrow.

How did the invention of the wheel make life easier?

#### The challenge

In groups, design and build a machine that incorporates wheels and axles.

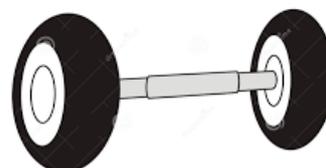
Wheels can be made from plastic bottle top lids. Use hammer and nail to put a hole in the centre of the lid. (These can be prepared ahead of time by an adult.) Wooden skewers can be used for axles.

#### How to make wheels and axles on toy cars

There are two ways to make wheels turn. One way is to make the wheels spin and the other way is to make the axle spin.

**To make a car / vehicle with a spinning axle:** Slip the axle (such as a toothpick) through a larger tube / cylinder (such as a straw). Now make wheels out of something (such as bottle caps, buttons, cork, etc.) and stick these to the end of the axle (toothpick, chopstick, pencil, etc). These wheels must be tightly secured to the axle...so the axle turns inside the tube, but the wheels don't.

**To make a car / vehicle with spinning wheels:** If you want the wheels to spin, then you will need to place the axle (toothpick, etc.) inside a bigger hole in the middle of each wheel (or a tube / cylinder (straw) that is placed in the middle of each wheel). An example of this would be to cut a hole in a bottle cap...one large enough to stick a small straw inside of it. Then place the toothpick in between both wheels...now the wheels will turn on the toothpick (axle) instead of the axle turning with the wheels as one piece.



## Practical Science: Tools, machines and technology

### 6. Bucket Spinning (Newton's first law of motion)

You might think that an upside-down bucket of water above your head would end up with you getting very wet but what if the bucket is spinning quickly in a circular motion? Give this fun science experiment for kids a try and see what happens while learning a thing or two about centripetal force.

#### What you'll need:

- A reliable bucket with a strong handle
- Water
- An open area outside where spilling some water is ok.

#### Instructions:

1. Fill the bucket until it is around half full with water.
2. Stand well clear of other people or anything else that could get in the way.
3. Hold the bucket by its handle with your arm extended and start spinning it by your side towards the sky and back to the ground in a circular motion, make sure to spin it fast enough to keep the water inside the bucket. Be prepared to get a little wet as your technique improves.
4. Stop spinning before your arm gets tired, watching out for splashes as you carefully bring the bucket back to rest on the ground.

#### What's happening?

There's half a bucket of water spinning upside down above your head and yet it's not falling out and getting you wet, what's going on?

This experiment makes use of something called 'centripetal force', which is a force acting on an object moving in a circular path, directed towards the center around which it is moving. This type of force can also be seen on roller coasters or by satellites in orbit around a planet.

As you spin the bucket you might feel that it wants to fly off in a straight line away from you (you might even accidentally let go of it), this is a demonstration of Newton's first law of motion, that an object will continue in a straight line unless an outside force (in this case your arm) acts upon it.

# God is Protector Teacher's Topic Guide Year 6

**Topic: Our special planet**

**Duration: 3 weeks**

## **Spiritual Awareness**

God has provided a special home for us in the Cosmos. Because God is wise, He knows the exact conditions for our survival on this planet and created it especially for us. Although God is outside of time, He created time for us. He created the Earth to spin and rotate on its axis while it orbits around the sun.

Our special planet has built-in protection. The Earth is the only planet in our solar System that is suitable for living things. It is just the right temperature, has air, flowing water and gravity. God designed planet Earth for human life. He also designed the Earth with a special protective layer, the atmosphere. The atmosphere protects the Earth from extreme heat and cold, from radiation and from harmful meteors. God has a plan for our planet. He knows the beginning and the end. He wants us to trust Him and remain with Him as we walk through life, and not to worry about the future.

## **Values: Our response to 'God is Protector'**

- **Trust** in God to be a guide for the journey of life
- **Confidence** that God is in charge

## **Outcomes: Students will**

- understand the properties of the atmosphere
- explain the position of the earth in space
- compare the special features of earth with other planets: the earth is one of the eight planets in our solar system, but it is unique in that it is the only planet with living creatures
- understand how the relationship between the earth, sun and moon, and the rotation of the earth on its axis give us time, seasons, day, night, years, months
  - measure time
  - observe moon changes over a month
  - observe movement of shadows
  - compare hours of daylight at the equator and the poles at different times of the year

## **Bible stories and passages**

Joshua 10 - The day the sun stood still. (God has control over time; He has control over nature).

Mark 4:35-42 Jesus calmed the storm. (He has control over nature.)

Psalms 104:19 – You created the moon to mark the month; the sun knows the time to set.

## **Verses about trusting God for the future:**

Ecclesiastes 3:11 - He has made everything beautiful in His time.

Jeremiah 29:11 I alone know the plans I have for you, plans to bring you prosperity and not disaster, plans to bring about the future you hope for. (Good News Translation)

Proverbs 3:5-6 Trust in the Lord with all your heart, and do not lean on your own understanding. In all your ways acknowledge him, and he will make straight your paths. (ESV)

Psalms 95:4-5 In his hand are the depths of the earth, and the mountain peaks belong to him. The sea is his, for he made it, and his hands formed the dry land.

Psalms 24:1 The earth is the Lord's, and everything in it, the world, and all who live in it.

## **Key Questions**

What makes our planet more special than any other planet?

What protection has God given to our planet?

What does the Bible tell us about trusting God, even when there are troubles and even disasters?  
What does God say about the future?

### **Activities**

- Describe the earth's atmosphere.
- Discuss the importance of the atmosphere for protection from a) meteors, b) ultra-violet rays, c) extreme heat and cold.
- Define the ozone layer: part of the upper atmosphere - the air from about 10 km. to 50 km. above the Earth. This layer, the stratosphere, contains ozone. Ozone protects the Earth from ultra violet rays.
- Discuss the importance of the ozone layer. (Without the ozone shield, the sun's rays would damage our health, including skin and eyes. It would also affect plants and animals.)
- Draw a diagram of the solar system to show the earth's place in space.
- Compare conditions on earth to those of other planets and discuss suitability to life.
- Record local temperatures. Make a list of highest, lowest and average temperatures around the world. Establish the temperature range that best supports life.
- Make a table to show the seasons in the Northern Hemisphere compared to the months and seasons in the Southern Hemisphere.
- Discuss the relationship of the earth to the sun by using two different size balls and demonstrate how the earth moves around the sun.
- Make a sundial and observe movement of shadows.
- Discuss the relationship between the earth, the sun and the moon.
- Observe how the relationship between the earth, sun and moon gives us time, seasons, months, day and night.
- Draw the changing shape of the moon over a month.
- Research the relationship between the phases of the moon and our months.
- Discuss differences in seasons in Northern and Southern hemispheres.
- Research the north and south poles and observe differences in hours of daylight in winter and summer.
- Draw and name star patterns.

**Geography:** Give students plenty of practice with identifying continents and countries on the world map.

# Values education Year 6

## God is Protector

### Peace

#### Peace is ...

A calm feeling inside, no matter what is going on outside

#### Activity

##### Story: The Two Artists

Once upon a time there were two artists. Each artist was asked to paint a picture that would best depict the idea of peace.

One artist painted a crystal clear lake in the mountains. There was not a breath of wind, and not a ripple on the lake. The lake, like a mirror, reflected the image of the surrounding trees and mountains.

The second artist painted a picture of a roaring waterfall. Hanging over the waterfall was a great tree branch. Hidden away in a secure part of the limb was a little bird's nest. Inside the nest was a tiny bird, sitting peacefully as the water rushed and swirled below her and the water sprayed around her. Amidst the tremendous roar of the waterfall the little bird sat as if she had not a worry in the world. Her nest was snug and warm, nestled in the strong branch. She knew she was safe.

#### Discussion

1. Which picture do you think gave the best idea of peace? Why?
2. What kind of troubles can we have?
3. What can give us a feeling of peace when we are in the middle of troubles?

The second painting can be similar to feeling safe and secure in God's care. God doesn't promise that we will be free from all troubles, but He does promise that when we do have troubles, He will be with us, and can give us peace inside.

#### Bible references

Matthew 7:24-26 The house on the rock.

Job: Job trusted God, despite many troubles.

John 14:1-3,18,25-27 Jesus promised inner peace to His disciples, and the comfort of the Holy Spirit.

2 Corinthians 1:3-4 God comforts us in times of trouble.

John 16:33 In the world we have tribulation but in Christ we have peace.

Matthew 11:28 Come to me all of you who are tired from carrying heavy loads, and I will give you rest. (GNB)

# Year 6 Art

## God is Protector

### Our special planet

**Biblical wall art and text:** The earth is the Lord's, and everything in it, the world, and all who live in it. Psalm 24:1

Students can paint a giant map of the world, showing land and sea, mountains and deserts.

#### Painting

Suggestions for planet earth subject:

- A night sky
- Weather and seasons
- Lands of ice and snow
- A desert scene



#### Some painting techniques

- Spatter work for stars in a night sky (paint on a toothbrush, and run finger down the toothbrush to make speckles)
- Colour blending for sky effects
- Snow scenes using only black, white and tones of grey
- Combine oil pastel and paint. Use oil pastel to draw details on a painted background.

# Practical Science Year 6

## God is Protector

## Our Special Planet

## Make a rain gauge

(to measure rainfall)

### Materials:

- Empty two-liter plastic bottle
- Scissors
- A few handfuls of clean pebbles, gravel, or marbles
- Masking tape
- Water
- Ruler
- Permanent marker
- Rainy weather
- Paper and pencil

### Experimental Procedure

Carefully use the scissors to cut the top of the bottle off at the wide part just below where it begins to get narrow.

Put the pebbles in the bottom of the bottle—these will help keep it from getting blown over if it's windy.

Turn the top of the bottle upside down—make sure there's no cap on it! It's going to act like a funnel—and place it in the bottom part of the bottle, pointing downward. Line up the cut edges and tape them together so the top part is held firmly in place.

Use a long piece of tape to make a straight vertical line from the top edge of the bottle to the bottom. Use the marker to draw a line on the vertical piece of tape just a little above the top of the pebbles. This will be the bottom of your rain gauge.

Set the ruler against the vertical tape so that the "0" line lines up with the bottom mark. Use the marker to mark every quarter-inch (or, if you want to get fancy, every eighth-inch) along the piece of tape. Then label the inches from bottom to top. (Alternatively, you can mark centimeters and half-centimeters instead.)

Set the bottle on a level surface and pour some water in until it reaches the bottom mark. Your rain gauge is now ready to go!

Put the rain gauge outdoors—you'll need to pick a really good spot! You want somewhere level that's open to the sky and that's not likely to get too windy, where the gauge isn't likely to be disturbed. There shouldn't be anything hanging over the gauge that could either



block any rain or make extra raindrops drip into the bottle (like a tree or a power line or the edge of a roof).

Pay attention to the forecast. On a day that you're likely to get rain, make sure the water in the bottom hasn't evaporated below your bottom mark; if it has, refill it to that mark.

If it rains within 24 hours, check your gauge and see how high the water is now. That's how much rain has fallen in the last day! On your piece of paper, make a note of the date and the amount of rain. Then read the newspaper or go online and find out the official amount of rainfall in your area for the day and make a note of it—see how closely your figure matches the official one!

Repeat steps 7-9 for several rainy days.

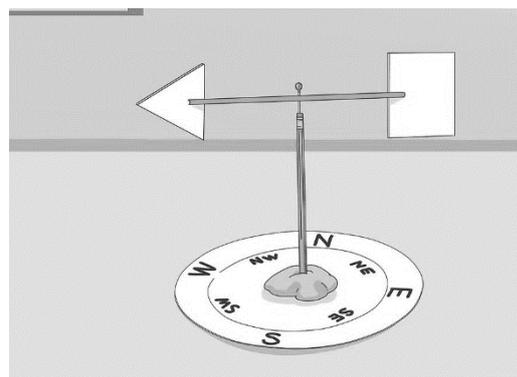
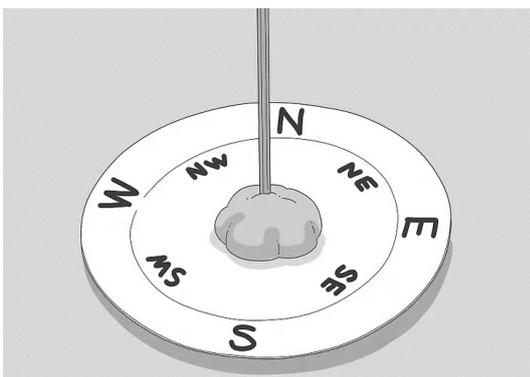
Author: Michelle Formoso

## God is Protector

### Our Special Planet

#### Make a wind vane (to measure wind direction)

- Materials:
- Paper plate
- Blue tac
- Pencil with rubber on end
- pin
- straw
- cardboard and scissors to cut the shapes



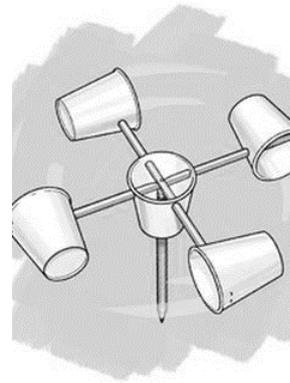
## God is Protector

### Our Special Planet

#### Make an anemometer (to measure wind speed)

##### Materials:

- 5 paper cups
- 2 straws
- pin
- paper hole punch
- scissors
- stapler
- sharp pencil with an eraser (rubber)



##### Process:

Take four of the paper cups and use the paper punch to punch one hole in each, about 5 cm (half an inch) below the rim.

Take the fifth cup and punch four equally spaced holes about a quarter inch below the rim. Then punch a hole in the center of the bottom of the cup.

Take one of the four cups and push a straw through the hole. Fold the end of the straw and staple it to the side of the cup across from the hole. Repeat this procedure for another one-hole cup and the second straw.

Slide one cup and straw assembly through two opposite holes in the cup with four holes. Push another one-hole cup onto the end of the straw just pushed through the four-hole cup.

Bend the straw and staple it to the one-hole cup, making certain that the cup faces the opposite direction from the first cup. Repeat this procedure using the other cup and straw assembly and the remaining one-hole cup.

Align the four cups so that their open ends face in the same direction either clockwise or counter-clockwise around the center cup.

Push the straight pin through the two straws where they intersect.

Push the eraser end of the pencil through the bottom hole in the center cup. Push the pin into the end of the pencil eraser as far as it will go.

Now your anemometer is ready for use!

**Explanation:** An anemometer is useful because it rotates with the wind. To calculate the velocity at which your anemometer spins, count the number of revolutions per minute.

# God is Truth Teacher's Topic Guide Year 6

## Topic: Smart shopping

Duration: 3 weeks

### Spiritual Awareness: Wise choices and decisions

There are many voices of persuasion, trying to pull us in different directions. It is important to know the truth and stand firm in our beliefs. This applies not only to our faith, but our beliefs and opinions expressed in the media. We need to be able to discern where there is deception, not be gullible, and understand when the voices around us are not telling the truth.

Throughout life we are constantly faced with making choices and decisions. Choices can be right or wrong. In order to make wise choices, and right choices, we need to rely on the Holy Spirit who can guide us into all truth. Discernment of truth is necessary in making decisions. This is something we acquire as we learn to hear God's voice.

### Bible references

#### Bible stories and passages about truth

Matthew 19:16-29 The rich young ruler's choice.

John 10:1-8 The Good Shepherd. The sheep recognize His voice.

Joshua 24:14-28 A choice between the true God and false gods.

Matthew 7:15-21 Wolf in sheep's clothing.

### Bible verses

1 Corinthians 10:23 GNB "We are allowed to do anything," so they say. That is true, but not everything is good. "We are allowed to do anything", but not everything is helpful. (As Christians we have freedom to choose, but some choices will benefit us more than others.)

James 1:5 Ask God for wisdom.

John 18:37 Everyone that is of the truth hears my voice.

Proverbs 2:11 Discretion will protect you, and understanding will guard you.

Proverbs 12:19 Truthful lips endure forever, but a lying tongue lasts only a moment.

Proverbs 12:19 – Truthful lips endure forever, but a lying tongue lasts only a moment.

### Values: Our response to knowing that 'God is Truth'

- Discernment of truth
- Seeking the truth
- Not following the crowd
- Wisdom and responsibility in choosing products

### Outcomes: Students will

- understand how our health & wellbeing is influenced by advertisements.
- assess food advertisements for the degree of honesty and persuasion
- learn how to avoid being persuaded by 'artful' sales people and marketers of wasteful products
- show wisdom and responsibility in choosing products
- Learn how to make healthy food choices by gaining a knowledge of
  - the difference between good fats and bad fats
  - the problems associated with sugar and salt
  - the problems caused by some food additives
  - the difference between 'processed' and 'unprocessed'
  - food labeling

### Key Questions

### **About smart shopping**

- Do advertisements always tell the truth? Why do they want to mislead you?
- Can you think of an advertisement that is misleading?
- Where could we go to get correct information on food?
- What are the influences on what we buy?
- How do friends influence our choices?
- What tempts us to buy junk food?
- How do advertisements get us to buy things we don't really need?

### **About making choices and decisions in life:**

- What kinds of choices does God ask us to make?
- How do we know whether something is good or evil?
- How can I know the right decisions to make?

### **Background information**

#### **The effects of advertising**

Advertising creates a 'want', even if you don't really 'need' the product. Millions of dollars are spent every year on advertising, to make a customer want to buy a new product, or choose a particular brand over another.

For each product, e.g. soft drink, there are so many competing brands. So there is much competition to make you buy the product. An advertisement will often have an explicit message: 'Here is a great product, buy it!' and, 'If you buy this product, you will be like the people you see in this ad, and you will get closer to living the lifestyle that they have. Here are some advertising tactics. A product will become popular if it:

- Makes you look attractive, or cool'.
- Makes you want to have what everyone else is having
- Makes you feel that it is the right thing to do
- Makes you think that you will be popular if you buy it
- Makes you think you will look better if you have it
- Makes you think that it is good value for money
- Makes parents think that they need to buy it for their children

#### **Does advertising influence our choices?**

Common techniques used in advertising include:

- catchy jingles and repetition of slogans to create familiarity with the product
- celebrity or expert endorsement, to boost the credibility of the product
- endorsement of the product by an association that allows its logo to be used
- use of key words, music and images to appeal to various emotions and desires, concerns and fears

Here are the techniques used when developing TV commercials:

- **Attention** – Grab the attention of the audience in the first 5 seconds.
- **Interest** – Make the content of the commercial interesting to the audience you are appealing to.
- **Desire** – The audience should feel a desire or need for the product.
- **Conviction** – The audience should be assured that the commercial is honest, (even if it isn't)
- **Action** – Use the words "NOW ON", "SALE ENDS SUNDAY", "WHILE STOCKS LAST!"

## Activities

- Describe and report on advertisements, e.g. on TV, or on posters outside shops or on billboards. Report on *what* is being advertised. Describe the *techniques* used in the advertisements. How do they get people's attention? Describe the purpose of the advertisements. What audiences are the ads targeting?
- Explain why some advertisements are not really true. Do they exaggerate?
- Explain why some advertisements can be helpful.
- Make a list of foods/items we really need, and those we don't really need.
- Describe the techniques are being used to influence people to buy things
- Explain the 'desirable lifestyle' messages are being presented in these ads. Are there any significant facts that you feel may have been deliberately left out?
- Play the truth game: Prepare a selection of real and artificial items. e.g. fruit juice/fruit drink; a drinking glass/a clear plastic one; real plant/imitation plant; real fruit/plastic fruit. From a distance, guess which is real.
- Detect foods that contain colours or flavours that pretend to be natural, e.g. is orange drink from a bottle always made from orange juice?
- Act out TV food commercials, or devise new ones.
- Design advertisements in two categories: helpful and misleading.

## Are you a smart shopper?

Do you...

1. think carefully about why you want the product and what you expect from it?
2. know whether or not you can afford it?
3. work out what you can afford to spend, before you go shopping?
4. consider alternatives, such as second-hand rather than brand new?
5. research the product and shop around for the best deal, comparing quality and price?
6. inspect goods thoroughly?
7. read the labels and check use by dates?
8. buy on impulse at the checkout? (You see, want it and buy it!)

## Score

If you said 'yes' to 7 or more, well done!

If you said 'yes' to 5 or 6, you are getting there!

If you said 'yes' to less than four, you need to sharpen your smart shopping skills.

## Activities for food choices

### Processed foods contain man-made chemicals

The purpose of food additives, (man-made chemicals in food):

1. To create brighter colours
2. To create extra tastiness
3. To make the food last longer

Food additives in small amounts may not harm us, but no one knows the long-term effects of food additives and other man-made chemicals in our environment.

Analyse food packets for content of sugar, salt, fat and food additives. e.g. breakfast cereals, packaged snack foods and biscuits. List all the ingredients. Which ingredients might not be good for us? (Possible problem ingredients: colours, flavour enhancers, preservatives, sugar, over-heated oils called 'trans-fats')

Make a list of the junk food currently eaten, and decide on some healthier alternatives. Some of these can be home-made.

### Let's check out fast foods!

- What are 'fast foods'? Are they the same as junk foods?
- How often do you eat fast food, where and when?
- Why are fast food outlets popular?
- Name five popular fast food items.
- Why are many people concerned about eating fast food?
- If you need a quick, cheap and tasty meal, what are your healthy and nutritious options?

### Promoting healthier fast food choices

In a small group, complete one of the following tasks:

- Create a poster for display in your school, listing options for healthy, inexpensive and convenient food.
- Write a submission to your school council, proposing a healthier menu at the school canteen, while still offering inexpensive options.
- Plan and present a demonstration for classmates, in which you prepare a simple and nutritious snack or meal that is convenient and inexpensive per serve.

### Report on a TV commercial advertising food or drink

Explain how advertising influences our choices? e.g.

- makes us want to have what everyone else is having
- makes us feel that it is the right thing to do
- makes us think we will be popular if we buy it
- makes us think we will look better if we have it
- makes us think that it is good value for money
- makes parents think that they need to buy it for their children

**Design two types of advertisements:** 1. helpful 2. misleading.

**Analyse food packets** for content of sugar, salt, fat and food additives. e.g. breakfast cereals, packaged snack foods and biscuits.

Are there any ingredients that they might see as being a problem to good health?

(Possible problem ingredients: colours, flavour enhancers, preservatives, sugar, over-heated oils called 'trans-fats')

### Make a list:

Students can make a list of the junk food they currently eat, and decide on some healthier alternatives. Some of these can be home-made.

Design ways to advertise healthy foods.

### Some definitions

**Natural food:** Also called 'unprocessed food'. These are foods directly from nature, such as fruit, vegetables, nuts, meat, fish and eggs, dried beans, lentils, rice, butter, milk.

**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.

# Values education Year 6

## God is Truth

### Fairness

#### Fairness is ...

- Treating everyone as they should be treated
- Not favouring one person over another

#### Say whether these situations are fair or not fair:

- Giving prizes to all girls who did well in exams, but not giving prizes to the boys.
- Giving detention to a student who spoke disrespectfully to a teacher
- Only allowing people who have passed a driver's test to drive a car
- Only allowing people who are well-dressed to come to church
- Sending a student home for not wearing school uniform
- Only allowing people born in your country to play on a national football team
- Not allowing smoking in restaurants

#### What does the Bible say about fairness?

Romans 2:11 God shows no partiality.

James 2:1-26 This passage speaks against showing favouritism to the rich above the poor.

# Art Year 6

## God is Truth

### Smart shopping

**Biblical wall art and text:** Your word is a lamp to guide me, and a light for my path.  
Psalm 119:105

**Make a NEW START poster.**

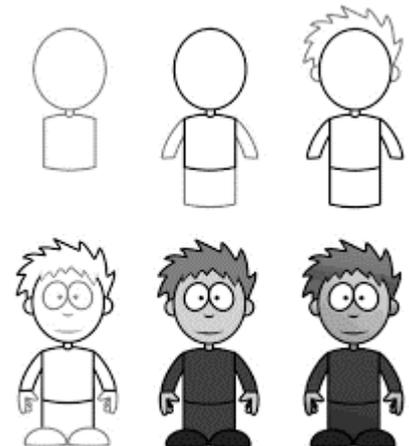
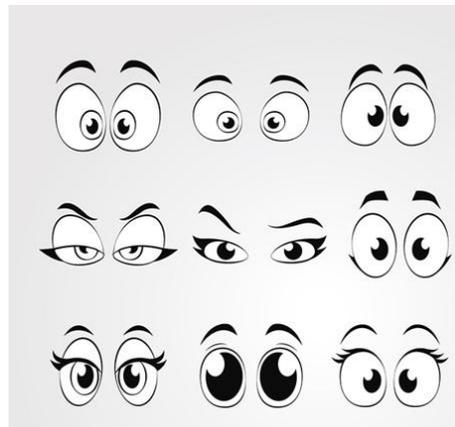
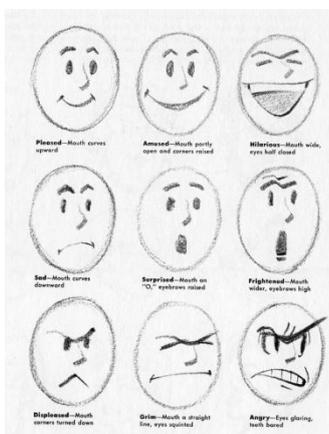
**NEW START stands for:**

- **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**



### Drawing

Students can invent cartoon characters that can be used to create food advertising posters.



# God is Lord and King Teacher's Topic Guide Year 6

## Topic: Christmas

Duration: 3 weeks

### Spiritual Awareness

At Christmas we celebrate Jesus who God sent into the world to save us. Through His birth and death, we have eternal life and peace with God. He is our redeemer.

#### Our response to 'God is Lord and King'

Because God is Lord and King I will...

Ask Jesus to forgive me for my sin

Invite Him to live in my life

Make Jesus Lord of my life

Live with Him forever

Thank Him for what He did on the cross

Thank Him that I am His child

Tell others that they can have eternal life

### Bible references:

#### Bible stories and passages

Matthew 1:18-25; Luke 2:1-40 – The Birth of Jesus

Matthew 2:1-12 – The Visit of the Magi

Luke 2: 8-20 – The shepherds and the angels

Matthew 1 – Descendants of David through Jesus Christ

Numbers 24:17 – Star of Jacob, Star of David

### Memory verses

Luke 2:11 – For unto you is born this day, in the city of David, the Saviour, who is Christ the Lord.

Matthew 1:21 – “Mary will give birth to a son, and you are to give Him the name Jesus, because He will save His people from their sins.”

Isaiah 9:6 – A child is born to us! A Son is given to us! And He will be our ruler. He will be called “Wonderful”, “Counselor”, “Mighty God”, “Eternal Father”, “Prince of Peace”.

Isaiah 26:3 You, Lord, give perfect peace to those who keep their purpose firm and put their trust in you.

### Social Studies

Revise knowledge of the world map – countries and continent

# Christmas Art

## Candle decorations

You will need:

Plaster of Paris

Small aluminium plates with sides (pie plates)

Medium sized candles

Place candle on the plate. Make a circular card cover with a hole in the centre to hold the candle in position for when you pour the plaster.

Now fill the dish with the Plaster of Paris mixture, then place the cover on top, with the candle sticking through the hold. When the Plaster of Paris is completely dry, remove the cover. Spread craft glue over the surface of the set Plaster of Paris. Decorate with sequins, glitter, ribbon etc. You can also use sprayed or dyed curly pasta.

