

# Human Biology 1: Body Systems

**God is a Powerful Creator** (Creation day 6)

## Spiritual Awareness

Human beings were created on the 6<sup>th</sup> day of the Creation, the same day as the animals. However human beings are different to the animals because only humans were made in God's image, and created to be friends with God. Only human beings can have a personal relationship with Him. God created each person as a valuable and unique individual. He knows and loves each one personally.

We see a large variety of features within the human race, but we all came from the original genetic pool of Adam and Eve.

The amazing complexity of our own bodies reveals God as an ingenious designer. The human body is comprised of marvelous systems that together keep us functioning effectively. Similarly, each of us has a valuable function in the body of Christ.

## Supporting devotional resource

*Themes for Christian Studies 4, (Creator): We are created in God's image*

## Biblical references

### Bible stories and passages

Genesis chapters 1 - 3 The creation and fall.

Matthew 10:29-30 God knows the number of hairs on our head.

Matthew 6:25-27 Do not worry about food and clothes;

Psalms 139 We are wonderfully made.

Romans 12:4-8 The body of Christ has many members

1 Cor 12:14-31 One body, many members

### Memory verses

Acts 17:28 (a) For in Him we live and move and have our being.

1 Corinthians 6:19-20 Don't you know that your body is the temple of the Holy Spirit, who lives in you and was given to you by God?

Romans 12:1 Offer yourself as a living sacrifice to God, dedicated to His service and pleasing to Him.

Luke 10:27 Jesus said, "You shall love the Lord your God with all your heart, and with all your soul, and with all your strength, and with all your mind; and your neighbour as yourself."

## Key questions

*About God:*

Why did God create people?

What is the main difference between humans and animals which were both created on day 6?

What do we mean by 'body, soul and spirit'?

What does it mean to 'love yourself'? (Luke 10:27)

*About our bodies:*

What are the different 'systems' that make up our bodies?

What are the functions of these systems?

Could the human body, with its amazing and interdependent systems, have come about through chance?

Why do we get sick?

How can we maintain healthy bodies?

## **Outcomes**

Students will

*Understanding:*

- understand that living things, including humans, have structural features that God has given them to help them to survive in their environment
- describe the major systems that comprise the human body: skeletal; circulatory; respiratory; digestive; nervous
- understand how these systems interlink and are interdependent
- recognize the functions of the organs
- recognize the importance of personal health and fitness

*Skills*

- identify organs
- label diagram
- devise experiments to test capabilities of body systems
- record and report observations
- work cop-operatively in small groups

*Values*

- recognize God as an ingenious designer
- appreciate the amazing complexity of the human body and the care He has put into the design
- recognize each person as a valuable member of the Body of Christ with unique giftings and abilities

## **Activities**

- Identify the major systems of the human body and explain the general role of each
- Work in groups to trace outlines of bodies on large sheet of paper. Each group then draws inside the body shape, a simplification of one of the above systems.
- Label major systems and components.
- Discuss the way in which structural features have been designed in a way that help us to survive, e.g. skeleton protects major organs; muscles allow us to move; digestive system allows us to receive nutrition and water; circulatory system and lungs allow our bodies to receive oxygen

### **NERVOUS SYSTEM**

- Devise sensory experiments with taste, smell, sight, hearing.
- Observe involuntary reactions, e.g. knee jerk, blinking, sneezing

### **MUSCULAR/SKELETAL SYSTEM**

- Set up flexibility, strength and endurance tests.
- Students can record personal performance.
- Make a paper collage of the human skeleton.

## CIRCULATORY/RESPIRATORY

- Measure and compare lung capacity and breathing rates before and after exercise.
- Measure variations in pulse rate before and after exercise.
- Feel own heart beat.

## DIGESTIVE/EXCRETORY

- Experiment with various food stuffs and how they are affected by saliva.
- Record and compare foods that are broken down in the mouth with those that aren't.

## PERSONAL DIFFERENCES

- Graph personal differences such as hair and eye colour.
- Record and compare fingerprints.

## PERSONAL FITNESS

- List the requirements for keeping our bodies fit and healthy.
- Plan a personal health and fitness program.
- Record own height and weight and calculate BMI

## Assessment

1. Research and present a project on one of the following body systems: nervous; muscular/skeletal; circulatory; respiratory; digestive
2. What have I learned from the study of the human body...
  - a. about God?
  - b. about doing what God wants me to do?
  - c. about the Bible?

## Link with Australian Curriculum

**Science Year 5** – Biological sciences: living things have structural features that help them to survive in their environment

## Learning Connections

**English:** Read the biography of Eric Liddell, an Olympian who used his athletic ability to honour God. Discuss ways in which we can use our physical abilities to serve God.

**Mathematics:** record and graph measurements for science experiments

**Social Studies:** study the effects of aging, environmental conditions and poverty on the human body; the impact of junk food on society; comparison with traditional cultures who do not have junk food as part of their diet

**Health:** personal health and fitness

**Art:** study the works of foot and mouth painters; still life drawing of hands and feet; portraits; action figure drawings, e.g. running, walking, throwing a ball

**Thinking Skills:** See *Creative Thinking Skills* on this web site – “*The Human Body*” (Middle/Upper Primary).

## Additional Beacon Media resource

Visual language Units: *Human Biology*