

Tools, Machines, Technology

God is a Humble Servant

God is Powerful

Spiritual Awareness: Using God's power in 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 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.

Our response to 'God is a Humble Servant'

Because God is a humble servant I will...

- follow the example of Jesus, the greatest servant
- be willing to help others
- consider the needs of others
- put others before myself
- let others go first
- not boast
- not think of myself as being more important than everyone else
- admit when I am wrong
- allow others to help me

Supporting devotional resource

Themes for Christian Studies 6, (Servant): Spreading the Good News

Themes for Christian Studies 7, (Power): God is a source of power

Biblical References

Bible Passages and stories

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

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

Acts 1:8; Acts 2 - The disciples receive power.

Acts 3 - Peter and John demonstrate power.

Acts 13:4-12 - Barnabas and Paul demonstrate power.

1 Corinthians 12 - The gifts of the Holy Spirit

Memory verses

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.

Ephesians 4:11 – God appoints some to be apostles, some to be prophets, some to be evangelists and others to be pastors and teachers.

Outcomes

Students will

Knowledge

- demonstrate application of the basic machines
- recognize the three types of levers
- 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
- understand the basic functions of an abacus, calculator and computer
- explain how machines have facilitated the spread of the Gospel

Skills

- identify the function and purpose of tools and machines
- experiment with some tools and machines and record observations
- make predictions and test them
- work co-operatively and share resources
- be creative in identifying ways in which technology can be used to spread the Gospel

Values

- appreciate the values of tools and objects that allow us to do work more effectively and efficiently and with greater ease.
- value the tools God has given us to use in serving Him
- have a desire to spread the Gospel

Activities

- Free play with levers, wheel and axles, inclined planes, pulleys, abacus and calculator.
- 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.
- Experiment using the three classes of levers.
- Vary the length of an arm and position of load on a first class 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 God?
 - about doing what God wants me to do?
 - about the Bible?

Link with Australian Curriculum

Science year 4: Physical Science – Forces can be exerted by one object on another through direct contact or from a distance.

Learning Connections

English: Biographies of famous inventors

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

Health: Road safety; safety with machines

Mathematics: measuring heights or gradations and weight involved in science experiments

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

Beacon Media Resources: *Simple machines; Inventions* **Science & Social Studies Student Research Cards**

Thinking skills: See *Creative Thinking Skills – “Tools, machines, technology” (Middle/Upper Primary)*.