

What happens inside my head?

Interact Teacher Manual

Health

Years 1-4

By Julie Owen

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OVERVIEW FOR THIS TERM

This Teacher Manual is for one subject of an integrated unit based around the theme of *God is generous*. The subject of this particular Teacher Manual is shaded grey. Further information about the supplementary books and teaching resources mentioned below are available from www.interactcurriculum.com

Year 1-4

Year 5-8

Devotions

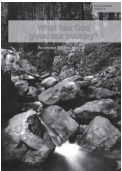


What has God given us and why?



Why is God so generous towards us?

Social Science



What has God given our country?



How do people value what God has given our country?

Science



What's so fantastic about feathers and fins?



What's so amazing about animals?

Health



What happens inside my head?



What is the potential of my brain?

Art



Birds in Contemporary NZ Art

Language



How can I express gratitude?



How can I use video to inspire awe at God's generosity?



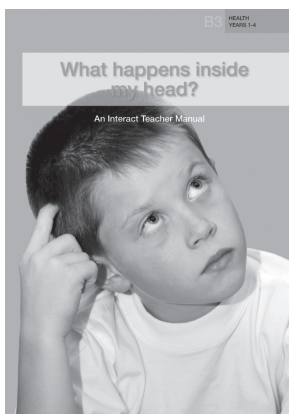
INTRODUCTION

What happens inside my head? This *Interact Teacher Manual* forms part of the theme, *God is generous and wants us to be grateful*. The focus in this investigation is on understanding how our brain works and why it is so important to use it well and care for it.

Many will be familiar with the character of the scarecrow in L. Frank Baum's *The Wizard of Oz*, who sets out on a quest to find the wizard who can give him a brain. Scarecrow recognises that the brain controls every aspect of a person, for when the Tinman tries to convince him that a heart would be a better choice, he tells him: "I shall ask for brains instead of a heart; for a fool would not know what to do with a heart if he had one." When he finally meets the wizard, he is rewarded with a diploma to prove to others that he can actually think.

God has given us the capacity to learn, to question, to reason, to feel emotions and to make choices. We do not need to go in quest of a brain or to receive a diploma to know that we have been given the ability to think and to *respond with gratitude, wonderment and awe* at God's generosity toward us. *Proverbs 3:2* reminds us to "guard Clear Thinking and Common Sense with your life; don't for a minute lose sight of them" (*The Message*). Using our brain well is an important aspect of living a life of *gratitude*, because "wise thinking leads to right living; stupid thinking leads to wrong living" (*Ecclesiastes 10:2, The Message*).

When we think about making healthy choices, we do not often consider how we can look after our brain. Because it is the control centre of our entire body, we should care for it well by eating a diet of foods that nourish brain cells, getting exercise and making considered decisions about how to avoid head injuries. By doing so, we can ensure that our brains will be well equipped to help us become all that God planned for us to be.



As we investigate the amazing gift of our brains, may we demonstrate our *gratitude* to our generous God by exercising our minds and our bodies in ways that promote healthy living.

If you are new to Interact resources we invite you to turn to Appendix I to learn about the Interact Learning Path on which this Teacher Manual is based, and to gain additional planning help.



PRE-PLANNER GUIDE

Resource People

- Science teachers who can supply a model or diagram of the brain that is suitable for your students
- A doctor or nurse who is familiar with the treatment or care of head injuries
- A person who is able to communicate about their own brain disorder, or a carer who can relate to students about what their charge can or cannot do, and ways to help people in their situation
- Dieticians who can tell us about 'brain food'
- Educators who specialise in kinaesthetic learning and combining physical activity with the development of thinking

Special Features could include:

- Creating and filming plays about how the brain works
- Having a class party to celebrate the goals that students have achieved and how much they have learnt this term
- Preparing a *Brain Aerobics* or *Brain Olympics* for teams of students and parents or visitors to compete against each other in activities that promote healthy thinking and healthy living



BACKGROUND INFORMATION

Many may suggest that a study of what goes on inside some people's heads might be a very short investigation. The reality is, however, that it is often not a lack of activity or capacity that is the problem, but a failure to outwardly demonstrate our true potential. God has given every person an amazing ability to think. *Psalm 139* reminds us that we are "fearfully and wonderfully made" (v 14); God can "perceive our thoughts from afar" (v 2) and even knows what we will say before we have thought about how to express it (v 4). Recognising even a little of the capacity of our brains helps us to understand how awesome God is, and how generous is the gift of being able to think for ourselves and make decisions of our own.

What is my brain like?

Scientists admit that they do not know as much about the brain as they would like to know. Its complexity outclasses any technology known to man. Helping students to understand a little of what we do know can assist in nurturing a response of *wonderment and awe*, and *gratitude* to God for the amazing ability to think.

God has created us in his own image, and our ability to think is a part of that creation. Our thoughts are not God's thoughts, but we have been given the capacity to learn, to question, to feel emotions, to reason and to make choices (*Genesis 1:27, Isaiah 55:8-9*).

Our brain is larger than the brain or any other living organism. It contains more 'valleys' and 'ridges' than an animal's brain, and scientists have concluded that these ridges are an indication of intelligence. This is because the brains of animals that demonstrate a capacity to learn, such as monkeys, also contain ridges.

A human brain actually feels to the touch like soft butter, although it looks hard and rubbery, and weighs about 1½ kilograms. It is surrounded by a very thin layer of fluid. The *cerebrum* is divided into left and right hemispheres which are connected by a bundle of about 50 million neurons. The outside layer of the cerebrum has special areas which receive messages about sight, touch, hearing and taste. Other areas control movement, speech, learning, intelligence and personality.

Electrical impulses in our brain conduct messages from one part of the body, and the brain, to another. The brain is connected to the brain stem, which carries information via the spinal cord to the organs and muscles in our body.

Nerves within the brain are sheathed in a fatty substance called *myelin*. Scientists have named some cells of the brain as 'white matter' (pinky-white in appearance) and 'grey matter' (pinky-tan in appearance).

Research seems to indicate that different parts of the brain are responsible for different kinds of thinking.



Background Information continued

What does my brain do?

Our brain is an amazing creation. It is active even when we are asleep, processing the information of the day and sending messages to the systems of our body. The Bible presents an analogy of Jesus being the 'head' or control centre of his 'body', the church (*Ephesians 1:22-23*). As Christians, we should be as connected to and reliant on Jesus as our body is to our brain.

God has given us our senses. Through them, we collect information about our environment. The data that we collect via our senses is transferred to the brain, where we make sense of what we have seen, heard, touched, tasted or smelt.

Cranial nerves carry messages to and from the ears, eyes, nose, throat, tongue and skin on your face and scalp. The *spinal cord* carries messages to and from the arms, legs and trunk of the body. *Sensory nerves* collect the information and send it to the brain along one network then *motor nerves* take the brain's orders back along another network (like cars travelling along their own side of the highway).

Consider the range of things that a healthy brain does for us:

- Alert you to danger, and give you the message to defend yourself or run away
- Store memories of things that you have seen, heard, tasted, smelled or touched before, so that it can give you information about what you are experiencing now
- Send an instant message to your senses to protect yourself from something hot, sharp, sour, loud, bright, etc
- Work out a plan of action and a number of steps in order to solve a problem
- Throw away information that seems to be unimportant
- Keep a file of experiences and feelings, both happy and sad
- Send a message to the muscles in your arms and legs so quickly, that they are moving at almost the exact same time as your brain receives the message
- Tells the organs in your body to keep working, including telling your heart to keep pumping
- Alert you to any injury to your body through the sensation of pain
- Stimulate emotions such as happiness or sadness, and give your body instructions about whether to smile, laugh, frown or cry

God has given us a brain with the capacity to think about how we will act. Some people call this the 'conscience.' (See *Psalms 19:14; Proverbs 3:21; Ecclesiastes 10:2*). God reminded Cain to think before he acted and thus avoid being caught in sin's grasp (*Genesis 4:6-8*).

God wants us to think about and meditate on God's Word, in order to understand it. The Bible often uses other parts of the body to express the idea of thinking to gain understanding, such as our eyes and our heart (see *Psalms 119: 11, 15, 18, 27, 34, 36, 97, 112*).

The Bible describes those whose thinking does not lead them to respond to God's generosity with worship and *gratitude*, as 'futile', 'foolish', and with hearts that are 'darkened' (*Romans 1:21*).



Background Information continued

How can I look after my brain?

When we think about making healthy choices, we do not often think about how we can look after our brain. Because our brain is the most important organ in our body, we should care for it well. Although skin and bones will repair themselves, brain cells do not rejuvenate. Researchers recommend the following ways to care for our brain:

- *Exercise and challenge your brain.* A variety of organisations offer 'brain training'. It appears that thinking and challenging ourselves to solve problems and to be creative encourages healthy brain function
- *Nourish your brain with a healthy diet.* Green vegetables, berries, nuts and lean meat – especially fish – are considered to be 'brain foods'. Hydration with water is also important for optimal brain function
- *Enjoy physical activity.* A healthy body encourages healthy thinking
- *Make safety first a priority.* Avoid risky behaviour, wear a helmet and take any head injury seriously
- *Manage stress and depression.* Healthy thinking leads to healthy living
- *Relax and sleep well.* A lack of adequate sleep impairs brain function
- *Avoid illegal drugs, nicotine and alcohol.* The substances are known to damage brain cells, but are especially lethal on a developing brain

Many people live with impaired brain function through injury or illness, and need our love and support.

How can I boost my brainpower?

Just as God has given people different physical appearances, God has also given people different abilities. If we are good at something, there are always ways that we can get better at it, by practising or learning more. It is the same with our brain! There are many ways that we can train our brain to be even better at thinking. Some people call it 'aerobics for your brain'.

Challenge students to solve problems, to be creative, and to develop skills in order to 'boost their brainpower.' Use thinking models and higher order thinking activities to 'tone' brain cells in the same way as other muscles of the body.

God wants us to recognise the strengths of every person, regardless of his or her mental capacities (*1 Corinthians 12:21-31*).



the key competencies are:

**Practise
thinking skills**

the habit of character focus is:

Gratitude

the habit of mind focus is:

**Responding
with wonderment
and awe**



the big idea is:

**God is generous
and wants us to
be grateful**

the key understanding is:

**God has given
me an amazing
brain to care for
and use well**

the focus question is:

**What happens
inside my head?**



New Zealand Curriculum requirements

Students will:

Vision: Demonstrate a commitment to become *Lifelong Learners*

Principles: Display *Coherence* and show a desire to be *Learning to Learn*

Values: Appreciate *Equity, Respect, Community and Participation*

Key Competencies: Practise *Thinking skills*

Health

Level 1

Personal Health and Physical Development

Personal growth and development

Describe feelings and ask questions about their health, growth, development, and personal needs and wants

Regular physical activity

Participate in creative and regular physical activities and identify enjoyable experiences

Regular physical activity

Personal identity

Describe themselves in relation to a range of contexts

Level 2

Personal Health and Physical Development

Personal growth and development

Describe their stages of growth and their development needs and demonstrate increasing responsibility for self-care

Regular physical activity

Experience creative, regular, and enjoyable physical activities and describe the benefits to well-being



key areas of investigation

We are investigating:

- 1.0** What is my brain like?
- 2.0** What does my brain do?
- 3.0** How can I look after my brain?
- 4.0** How can I boost my brainpower?

For a list of Key Learning Intentions to select from as a skill focus, please refer to the Appendix



Interact Learning Path | Phase 1

Firing Up

Fire Up imaginations and learning desires and gain knowledge in the following ways:



Relate

Be connected, in engaging ways, with the topic to get 'hooked' into learning
The exclamation mark reminds us to get enthused



Recall

Recall prior knowledge of this topic
The arrows remind us to consider all we have experienced, learnt and felt about this topic



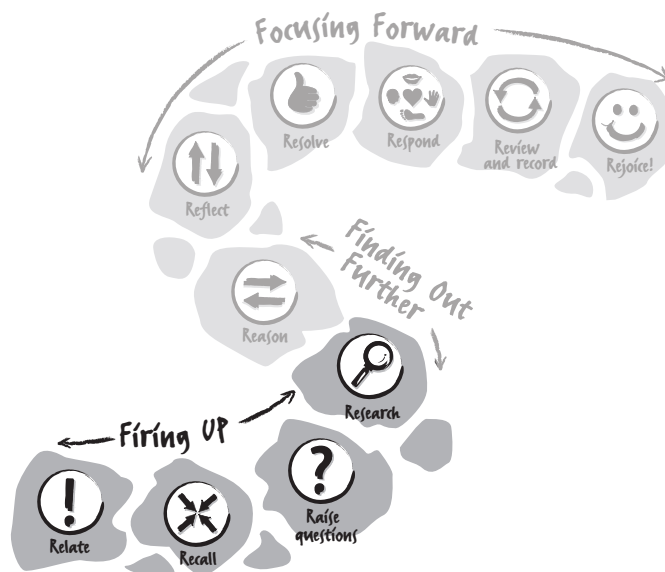
Raise questions and recognise problems

Consider what questions we have about this topic that we need to or would like to know the answers to. Identify possible problems. Some of these questions may be springboards into the topic study. Others may become the basis for further research later in the unit
The question mark reminds us to question



Research (initial)

Initiate research in the key areas of investigation, seeking to answer questions as you go
The magnifying glass reminds us to go searching





Relate

questions and activities

indicators of achievement

Provide an interesting, information-rich environment that engages the students in their learning. The following is a range of suggested ideas:

Go for walk together, and then brainstorm what you experienced while outside the classroom. Use questions such as:

- *Did you smell anything?*
- *What did you hear?*
- *What things did you see?*
- *Did you feel anything with your hands or your feet?*

After some initial discussion, further develop an awareness on the relationship between thinking and using our senses with questions such as:

- *When you smelled the cafeteria food, did you know what was cooking? How? Could you taste it?*
- *Did you hear any birds or animals? What were they? How did you know what they were?*
- *Did you see the mountains? Are they far away or close by? How do you know?*
- *Did you notice any colours or clouds in the sky? What did they remind you of?*
- *Did you see any cars parked or moving? What do you think their owners were doing or where do you think they were going?*

We able to think about what we have experienced because our brain collects information through our senses. Review the five senses of healthy bodies and read a book that highlights these, such as:

- *My Five Senses* by Alike
- *Brown Bear, Brown Bear, What Do You See?* by Bill Martin Jnr

Alternatively, write or share a poem together, such as:

*Here are my eyes. What can they do?
Blink and cry and look at you.
Here is my nose. What does it do?
Breathes and smells and makes me 'Achoo!'
Here is my tongue. What does it do?
Helps me taste the things I chew.
Here are my ears. What can they do?
Listen to sounds, like me saying 'Boo!'
Here are my hands and here are my feet
I use them to feel all the things that I meet.
My eyes, ears and tongue and my skin and my nose
Help me to learn, as my body grows.*

- Connects with the topic and relates to others





Relate continued

questions and activities

indicators of achievement

Our senses often work together to help us understand things. If we are missing one of our senses, it can sometimes be difficult to perform different tasks. Try one or more of the following activities and discuss the difficulties you experienced and why:

- *No sight* - Do a blindfolded walk with a partner
- *No hearing* - Act out a mime or watch a DVD with no sound
- *No smell* - Taste some things that look similar, like a piece of apple and a piece of potato, while holding your nose
- *No taste* - Dry your tongue with a paper towel before doing some taste testing (An absence of saliva makes it difficult to taste different flavours)
- *No feeling* - Describe how something feels, while wearing thick, oversized gloves

Look at a video clip of someone developing his or her muscles. Discuss the way the brain is like a muscle and how we can make it stronger and better at work if we exercise it and look after it. Consider:

- *How do people develop their muscles?*
- *Is it easy, difficult or tiring?*
- *Why do they do it?*
- *What are some ways that you think you could develop your brain like a muscle?*
- *Will it be easy, difficult or tiring?*
- *Why might it be a good idea?*

Complete some tests for spelling, writing, basic facts, etc. Set goals for yourself and see how quickly you can progress through stages of improvement and skill as you investigate new ways of learning your spelling and basic facts this term. Test yourself again at the end of the term to see how much you have developed

- Connects with the topic and relates to others





Recall

questions and activities

indicators of achievement

Assist the students to consider what they already know and to build on that knowledge by asking further questions as they learn. The following is a range of suggested ideas:

When our senses are giving us information about something, we have to think about what we remember. For example, when we hear something, we remember what makes that sound. If we feel something, we collect all the information about its size and shape, its texture and weight, and think about all the things we have seen before that have these characteristics. Make a 'Feely Bag' of different objects, and recite the following poem while someone feels the object through the bag:

What can your fingers 'see' for you?

Does the surface feel old or new?

Is it bumpy or lumpy, slippery or slick?

Is it prickly or scratchy or hard as a brick?

Is it spongy or rough or softer than dough?

Touch it and see if your fingers know!

Complete other activities that rely on students drawing on their previous experiences to identify things, and testing each other's recall. For example:

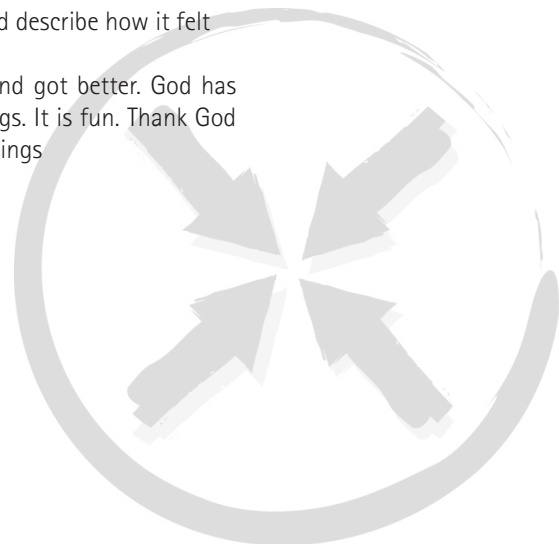
- Use something to make a sound behind a screen or in a box
- Scratch and sniff cards – commercially available or homemade, by sprinkling powdered substances over glue and allowing them to dry, e.g. cinnamon, ginger
- Looking at photographs or drawings of things from a very close vantage
- A taste test of various substances, while blindfolded

Discuss times when you remember being so tired or hungry that you could not concentrate or you made lot of mistakes

Think of times you were really good at something, and describe how it felt

Think of times you tried really hard at something and got better. God has made us want to work and play to get better at things. It is fun. Thank God for the enjoyable times you have had learning new things

- Recalls prior knowledge and experiences



Raise questions

questions and activities

indicators of achievement

As a class, identify questions you would like to know the answers to in relation to this topic. The following is a range of suggested ideas:

There are a number of books in *The Magic School Bus* series by Joanna Cole. In *The Magic School Bus – Inside The Human Body*, Ms Frizzle takes the children on a ride through the body and up to the brain. Imagine that you are the teacher, Ms Frizzle, and you want your students to investigate some questions about the brain when you get there on your tour. Make a list of the questions and write up the best ones on a large silhouette of a head, where you can see them as you investigate *What Happens Inside My Head?*

God has given us a skull to protect our brain, but there are ways that we can care for our brain as well as protect it. Make a list of questions which you would ask an expert about how to care for and protect the brain

Not everyone's brain works as it should. This may be because of illness or accident. Write a list of questions which you could ask someone about what difficulties these people experience and how we can best help them

During this investigation, you will practise lots of different ways of learning new things as you try to get better at your skills. Discuss:

- *Can you think of some games or songs or actions or chants you could do to help you learn?*
- *Can you think of ways that colours or pictures might help you? What are some fun ways that you could help yourself practise new skills this term?*

- Writes open questions
- Creates a framework to focus an inquiry





Research

questions and activities

indicators of achievement

Immerse yourself in ideas and information about the topic as you develop those skills outlined in the *Key Learning Intentions*. As you research, try to:

- take notes as individuals or as a class
- identify groups of ideas and sort under headings
- note titles of interesting or helpful resources
- identify new questions you would like to investigate

The following is a range of activities, based on the *Key Areas of Investigation*:

1.0 What is my brain like?

Look at an image of a brain. There are many available on the internet or your science department may have a model to show. The human brain looks wrinkly, like it is covered in hills and valleys. Discuss its shape, size, and other observable features, and then invite students to answer true or false to the following statements. Talk further about each concept, encouraging a response of awe at God's design:

1. If you felt a real brain, it would be hard and rubbery (*False – the human brain feels like soft butter*)
2. An elephant's brain is bigger than a human brain (*False – the human brain is bigger than the brain of any animal*)
3. Your brain is made of two pieces (*True – the outer part of your brain or cortex is split into two, called the left and right hemispheres. They are connected by a bundle of about 50 million neurons*)
4. The brain weighs about the same as a box of tissues (*False – a typical brain weighs about 1.4kgs. Identify something within the classroom to which students could compare this weight*)
5. The brain contains electricity (*True – there is enough electrical current in a brain to turn on a light bulb*)
6. Your brain contains fat (*True – there are nerves inside your brain that are covered in a fatty 'sheath' or cover called myelin*)
7. Your brain is so big that it barely fits inside your head (*True – there is a very thin layer of fluid between your brain and your skull*)
8. Your brain is different colours (*True – the cells that scientists call 'grey matter' are actually a pinkish brown colour, and the 'white matter' is really a pinkish white*)
9. The more wrinkly a brain is, the more clever the owner (*True – scientists believe that the ridges are related to intelligence. Humans and monkeys have very wrinkled brains, whereas rats and mice do not*)
10. Your brain is not connected to any other part of your body (*False – your brain is connected to your brain stem, which is like a highway down your spine. Messages from the brain travel to the rest of your body through the brain stem*)

- Shares ideas
- Identifies main ideas



Research continued

questions and activities

indicators of achievement

Play this short simulation game and then discuss the questions below about what our brain is like:

- Write the numbers 1-5 on separate pieces of paper. Make five sets like this, and then hide them in an area where students can search to find them
- Divide the students into six groups – five to search for the hidden numbers and one group to act as the *Information Centre*
- Groups that are searching must bring the numbers that they find, in numerical order, to the *Information Centre*, who will exchange each one for a message of some kind. (You may choose to print out statements about the brain, or make jigsaw pieces of a verse of scripture such as *Psalms 139:2*)
- When the group receives the message they must take it back to an assigned area and glue it onto their *Information Chart*
- The winners are the first group to have all five statements glued in order on their chart

Discuss how the game is a picture of how our brain works – collecting information from different places, using our senses, and piecing them together in order to understand things around us

- Sees connections between ideas
- Identifies relevance of information





Research continued

questions and activities

indicators of achievement

2.0 What does my brain do?

Show a laptop computer to stimulate discussion. Ask questions such as:

- *What can I do with a computer?*
- *Do I have to have the computer plugged in to do these things?*
- *Do I have to have the computer turned on to do these things?*

- Shares ideas
- Identifies main ideas

The first two questions should draw a great deal of discussion and you may be able to explore examples of what is discussed, however, the last question should be fairly short – in simple terms, you cannot use these functions if the computer is not turned on. Compare this with the human brain, which is more powerful, more complex and cleverer than any computer ever built. It is constantly dealing with hundreds of messages from the world around you, and from your body, and telling your body what to do – even when you are asleep!

Just like the *Information Centre* in the *Research 1.0*, the brain is the place where all the messages that our body receives through our senses about seeing, hearing, tasting, smelling, touching and moving, are sorted out. Draw some simple diagrams or make models using string, plastic coated wire and plasticine, to illustrate the following concepts. Add labels to show the process:

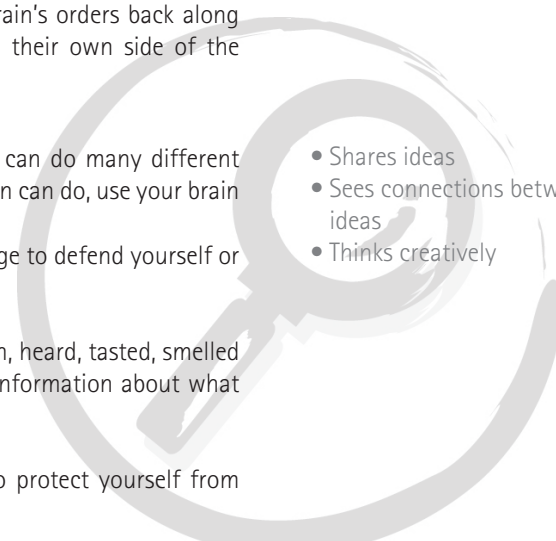
- Uses a range of sources to research
- Draws a diagram to show connections
- Creates a model

- *Cranial nerves* carry messages to and from the ears, eyes, nose, throat, tongue and skin on your face and scalp
- The *spinal cord* carries messages to and from the arms, legs and trunk of the body
- *Sensory nerves* collect the information and send it to the brain along one network then motor nerves take the brain's orders back along another network (like cars travelling along their own side of the highway)

God has given each of us an amazing brain that it can do many different things. As you discuss each of the things that our brain can do, use your brain to think of an example! Your brain can:

- Alert you to danger, and give you the message to defend yourself or run away
- Store memories of things that you have seen, heard, tasted, smelled or touched before, so that it can give you information about what you are experiencing now
- Send an instant message to your senses to protect yourself from something hot, sharp, sour, loud, bright, etc
- Work out a plan of action and a number of steps in order to solve a problem

- Shares ideas
- Sees connections between ideas
- Thinks creatively





Research continued

questions and activities

indicators of achievement

- Throw away information that seems to be unimportant
- Keep a file of experiences and feelings, both happy and sad
- Send a message to the muscles in your arms and legs so quickly, that they are moving at almost the exact same time as your brain receives the message
- Tells the organs in your body to keep working, including telling your heart to keep pumping
- Alert you to any injury to your body through the sensation of pain
- Stimulate emotions such as happiness or sadness, and give your body instructions about whether to smile, laugh, frown or cry

- Shares ideas
- Sees connections between ideas
- Thinks creatively

Scientists tell us that different parts of our brain are responsible for thinking about and learning different skills:

- Complete a task that involves some kind of problem solving, maths or writing
- Complete a creative task, such as some art or making music

- Identifies main ideas
- Shares ideas
- Sees connections between ideas
- Thinks creatively





Research continued

questions and activities

indicators of achievement

3-0 How can I look after my brain?

When we think about healthy eating, we do not often think about how our healthy choices can help to keep our brain healthy. Generally, what keeps our body healthy keeps our brain healthy, but scientists tell us that some foods are especially helpful in keeping our brain working well. Collect or draw pictures of these to make a poster about healthy brains. Add information as captions:

- Fruit, especially apples and berries
- Leafy green vegetables
- Fish, seafood and lean meats
- A healthy breakfast
- Low fat foods
- Glucose (especially from fruit) when your concentration wanes

Check your lunchbox for 'brain food' and have a 'Brain Food Break'

Play an energetic relay game where a large number of coloured blocks, items or messages have to be filed in the correct boxes or buckets. After every 2-5 filings, the team must all lay still and count to 20 before the next items can be filed. When the game is complete, discuss how your brain is busy filing away all the messages you have received during the day when you are asleep, and resting so that it is ready to perform at its best when you wake. Getting enough sleep helps your brain to stay healthy

Daily exercise of your muscles helps your brain to stay healthy. It helps you to feel happy and it keeps the nerves that conduct the messages to and from the brain working well. Doctors tell us that just 12 minutes of aerobic exercise a day can help our brains to be healthier. Think of an energetic activity that you and your classmates can do for 2 minutes. Make groups of 6 and then lead your classmates through 6 lots of activities for 2 minutes each

Many cartoon characters get hit on the head and jump back up again as if nothing has happened. This does not happen in reality. Safety first is extremely important to avoid any injury to our brains. Discuss how our brains might be at risk in these situations, and what you could do to avoid a nasty accident or concussion:

- Running around the playground
- Playing a rough game
- Being a passenger in a car
- Crossing the road
- Doing any activity where you move fast, such as cycling, skiing, skating
- Playfighting
- Other

Drinking water is important to keep your body and your brain healthy. Before we even start to feel thirsty, our body and our brain have started to dehydrate. Pour a litre of water into a jug or bottle, and then pour it out into typical drinking cups. Count how many cups it takes to empty the litre. Try to drink at least that many cups of water every day for the next week, to develop the habit of drinking water

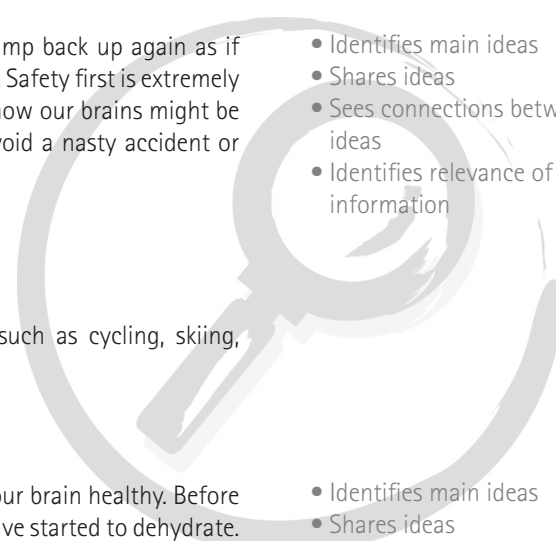
- Identifies main ideas
- Shares ideas
- Sees connections between ideas
- Thinks creatively

- Identifies main ideas
- Shares ideas
- Sees connections between ideas
- Identifies relevance of information

- Identifies main ideas
- Shares ideas
- Sees connections between ideas
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- Identifies main ideas
- Shares ideas
- Sees connections between ideas
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- Identifies main ideas
- Shares ideas
- Sees connections between ideas
- Identifies relevance of information





Research continued

questions and activities

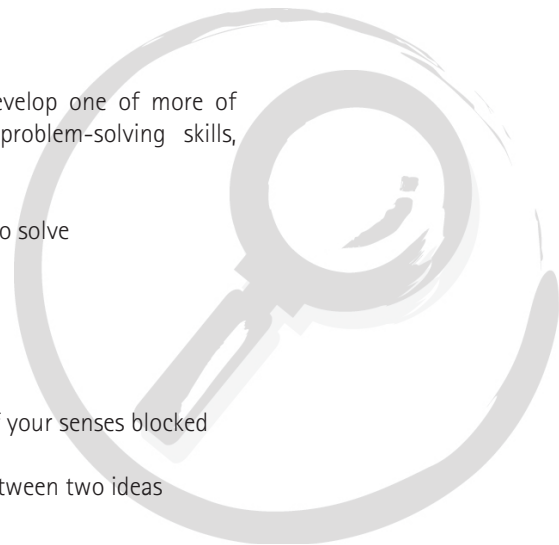
indicators of achievement

4.0 How can I boost my brainpower?

Just as God has given people different physical looks, God has also given people different abilities. If we are good at something, there are always ways that we can get better at it, by practising or learning more. It is the same with our brain! There are many ways that we can train our brain to be even better at thinking. Some people call it 'aerobics for your brain'. As you work at the activities in *Research 4.0*, think about how they are helping your brain to get fit, thank God for the gift of thinking, and ask God to help you to value the ability to use your brain in so many different ways. You might choose to do one thing from the list per day for the next month, or organise a session where you can try a number of them:

- Develop your memory – recall what you did this morning, last Saturday, at an event last year; play memory games where you identify what items have been removed from a group; recall sound or colour sequences
- Read to yourself; read aloud
- Learn to do something that you have never tried before
- Play word games and puzzles such as find-a-words, crosswords, word wheels, etc
- Solve spot-the-difference pictures and mazes
- Play a game that requires fast reflexes
- Do some sums, find the patterns in some number sequences or solve a Sudoku puzzle
- Have general knowledge quizzes
- Play a variety of computer games that develop one of more of the following: quick reflexes, dexterity, problem-solving skills, imagination
- Try some tasks that involve spatial rotation to solve
- Learn some new words
- Play a strategy board game
- Do some everyday tasks with one or more of your senses blocked
- Draw a diagram to show the connections between two ideas
- Solve a logic problem
- Do something creative

- Describes findings
- Identifies main ideas
- Shares ideas
- Sees connections between ideas
- Thinks creatively
- Learns new skills





Research continued

questions and activities

indicators of achievement

Understanding the way you learn best can be helpful in boosting your brain power. Do a simple 'learning styles test' to establish whether you learn best by listening, seeing or doing, and then find ways that you can use your learning style more effectively

- Identifies main ideas
- Sees connections between ideas
- Thinks creatively

Use a thinking model to consider an issue that is relevant to you. For example, the SCAMPER model could be used to consider, What happens inside my head? Here are some suggestions for some 'what ifs' to discuss:

- Shares ideas
- Sees connections between ideas
- Thinks creatively

• *What if my head were not for thinking, but for some other purpose?*

• *What if my brain were located in my fingers?*

• *What if I had several different brains in my body?*

• *What if God made animals to think like humans?*

• *What if people could not develop their brainpower at all?*

• *What if people did not use their brains to think about anything?*

• *What if God did not give us the ability to think or make choices?*

• *What if we knew everything when we were born, and we lost the ability to learn as we grew?*

Read *Psalm 139:13-14*, and thank God that you have been perfectly made by a generous God who has given you so much potential to learn and to grow





Interact Learning Path | Phase 2

Finding Out Further

Find Out Further and gain understanding in one of two ways:

1. Individual or group investigation
2. Whole class investigation

During this phase the students will gain understanding:



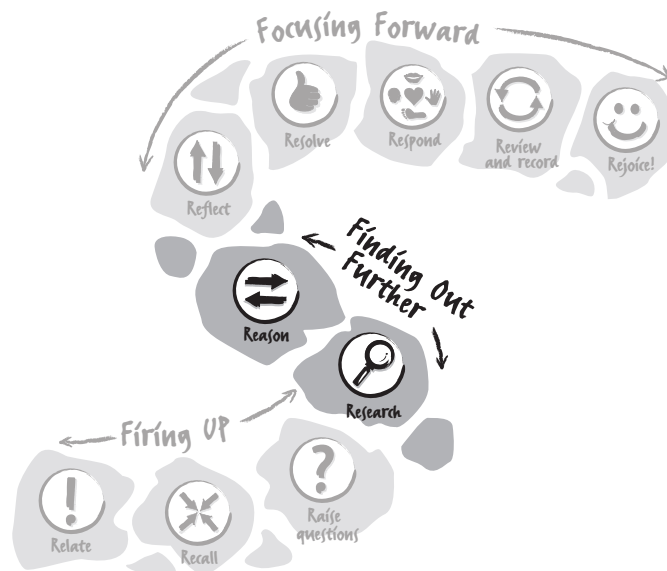
Research (further)

Find answers to other questions generated at the beginning of, or during, the study
The magnifying glass reminds us to go searching



Reason

Apply, analyse, interpret, compare and contrast findings
The arrows remind us to pull apart (analyse) and draw comparisons (compare)





Further research

questions and activities

indicators of achievement

1. Identify an issue or topic you would particularly like to research, based on what you have learnt so far. For example:

Draw or write down the food you eat for a week and highlight all the brain foods

Interview a doctor or nurse about head injuries and some ways to avoid them

Gather some interesting problem to solve or physical activities to do that require concentration to complete

Investigate further about learning styles and practise different ways of remembering basic facts, names, etc., that include listening, looking and learning in interesting ways

Research about people who have done amazing things after their brain has been damaged

- Creates a framework to focus an inquiry

2. Make a plan

Identify resources from which you will gather information, and consider others who could work with you or assist you. Make a list of specific tasks to do and map out a time frame in which to complete your research

- Plans a schedule of tasks

3. Research

Keep your research together in a folder or book, where you can add new ideas as you investigate

- Uses a range of sources to research
- Conducts surveys and interviews
- Identifies main ideas
- Listens to people
- Shares ideas
- Sees connections between ideas
- Describes findings

4. Organise your notes and plan ways to communicate your understandings

Consider ways in which you might present your research to the class

- Communicates clearly and creatively





Reason

questions and activities

indicators of achievement

Consider ways you can apply your ability to reason to your study. The following are a range of ideas, but students and teachers may come up with their own as a result of their research:

Act out a scenario of your brain in action. After you have tried the example below of someone asleep at night, make up some of your own:

- A number of people are grouped together with a sign reading *Brain*. Some are sleeping, while others are 'filing' things away
- Two students with a sign or symbol to indicate that they are the *Ears*, run in while calling out, "We hear something! We hear something!"
- *Brain* jumps up and several of them call out, "Eyes open! Eyes open!"
- Two students with a sign or symbol to indicate that they are the *Eyes*, run in while calling out, "We're open!"
- One of the *Brain* students asks, "Can you see anything?"
- *Eyes* look about them and exclaim that they cannot, because it is too dark
- Another *Brain* student asks the *Ears* what the sound was like
- The *Ears* imitate the sound of a dog barking
- One of the *Brain* students holds up a label that says *Memory*, while saying, "I know! I know! It's just a the neighbour's dog!"
- The *Brain* students congratulate each other. One says "Eyes, close now!" *Eyes* exit
- Another *Brain* student says, "Muscles, relax. Emergency over." *Ears* exit. *Brain* students resume what they were doing in the opening scene

- Identifies cause and effect
- Recognises analogies

Bring in a cupcake or piece of bread, and a crockery plate. Ask the students:

- *If I dropped this plate, what would happen?* Discuss what measures you could take to repair the plate by gluing pieces together
- Hold the cake/bread in your hand and begin to crumble it into the plate. *How could I repair this bread/cake if I broke it?*

- Recognises analogies
- Evaluates consequences
- Identifies cause and effect
- Thinks critically

Use the analogy to explain that there are parts of our body that God has made to repair themselves, like skin and bones. However, when we damage our brain, it does not repair itself. Review the safety first measures discussed in *Research 3.0*, reinforcing the need to care for our brains



Reason continued

questions and activities

indicators of achievement

People whose brains are not sending or receiving messages well can sometimes appear a little scary to others. It may be because of a brain injury or because of a condition that has occurred. Discuss how people with the following conditions might appear, and what their needs might be. Allow students to share any experiences of dealing with people living with any of the following disorders, and identify appropriate responses to them:

- Cerebral palsy
- Stroke
- Muscular dystrophy
- Alzheimer's, Huntington or Parkinson's Disease
- Epilepsy
- Multiple sclerosis
- Brain tumour
- Dementia
- Schizophrenia
- Depression

The Bible says that Jesus is the 'head' and that the church is 'the body' in *Ephesians 1:22-23*. In light of what you have learned about the brain, discuss this analogy

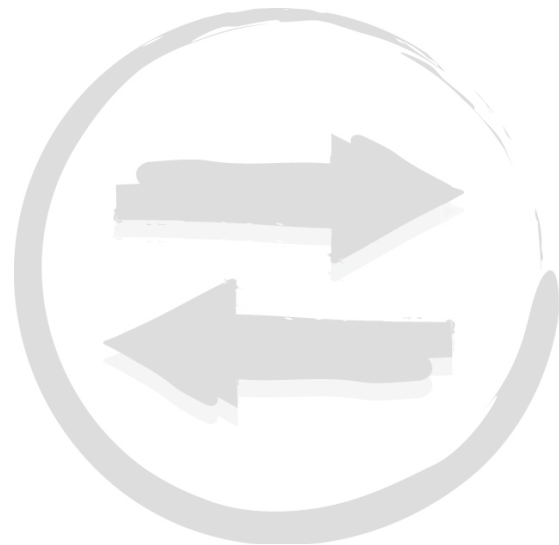
Compare your brain with the engine of a car. Discuss:

- *In what ways are their tasks similar? (They 'take' us to new and different places, they help us to do things which would be very difficult without them)*
- *In what ways are their needs similar? (They need fuel, they need looking after)*
- *What happens if they do not get good fuel or are not looked after?*

- Understands and expresses uncertainties
- Compares and contrasts

- Recognises analogies
- Thinks critically
- Gives reasons and supporting evidence

- Recognises analogies
- Thinks critically
- Gives reasons and supporting evidence



Interact Learning Path | Phase 3

Focusing Forward

Focus Forward to develop wisdom in the following ways:



Reflect

Think deeply about the value and purpose of the subject, consider ethical issues, reflect on findings

The arrows remind us to think from a higher perspective, and a deeper perspective



Resolve

Choose. The benefit of our learning is evidenced by what we do more than what we can repeat. We consider how what we have learnt might impact who we are and what we do. De Bono's Thinking Hats can help in the decision-making process. The 'thumbs up' remind us that we can say 'yes' to a response of some kind

Our learning may have impacted our thinking, our attitudes, our actions, our communication on this topic, or where we stand on an issue



Respond

Take action. We apply our understanding

The symbols remind us to consider our thinking, our attitudes, our actions, our communication on this topic, or where we stand on an issue



Review and record

Review the *Big Idea*, the *Key Understanding*, the *Focus Question*, the *Habits of Character*, the *Habits of Mind* and the *Competencies or Skills* you have focused on. Evaluate. Consider what we have done well and how we could have improved. Identify what our next steps are in developing values, habits and skills

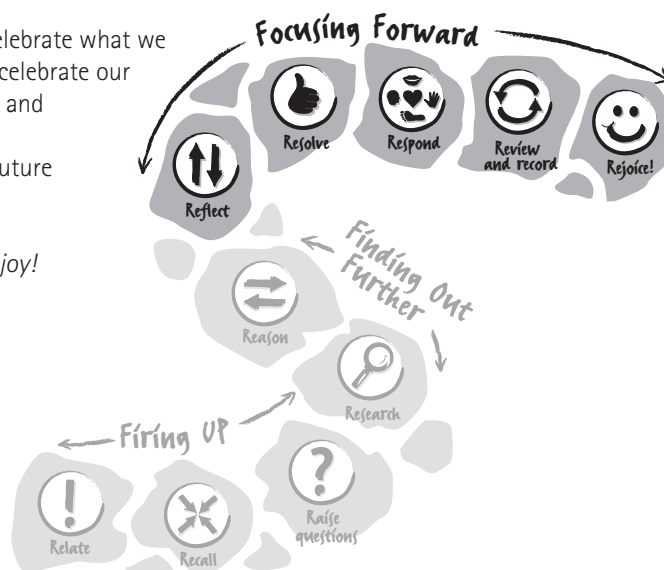
The arrows remind us that we need to look back in order to move forward



Rejoice!

Celebrate! We celebrate what we have learnt. We celebrate our gifts and talents and developing skills
We celebrate a future and a hope

The smiling face reminds us to enjoy!





Reflect

questions and activities

indicators of achievement

Reflect on what is valuable, important or conclusive about your topic of study by considering one or more of the following. Share your ideas:

Show a picture of a robot or machine, or display a toy robot. Discuss whether a robot can think for itself, or whether it is programmed by its maker or owner to do certain things. Discuss:

- *Did God make people to be like robots or machines, programmed to do certain things? How are people and machines different in this respect?*
- *God has made people with the ability to think for themselves, and make their own choices. We can make good choices or bad choices. What was the first bad choice that a person made? Read from Genesis 3 or read the story of the Fall in a children's Bible*

God has given us a brain to think about our choices, to think about the consequences of our choices, and yet we still make bad choices. The Bible calls those bad choices sin. We are not showing *gratitude* for the ability to think that God has given us. Consider:

- *How does the fact that God gave us the ability to think about our choices show God's generosity? (God generously gave us the choice about whether to show our *gratitude* or not)*
- *What did this act of generosity cost God? (God gave Jesus to die for our sin)*
- *Why was this cost the ultimate display of generosity? (Jesus was God's only son)*
- *How did God's generosity give us a chance to be forgiven for wrong choices? (We can thank God for Jesus' death for our sin, and invite him to be 'head' of our life)*

What happens inside your head? Read Psalm 139:1-6. Discuss how God has not only created your amazing brain, capable of doing so many things, God also knows what you will think before you even think it! God knows us better than we know ourselves, and yet has been generous enough to give us freedom in what we choose

Play a quick game or activity that highlights the fact that some people are naturally good at things, others improve with practice, while others simply do not have good skills in that area. While highlighting the students' different abilities, encourage an atmosphere of acceptance of each other's strengths and weaknesses. Discuss the way in which God has given each person different skills and abilities. Some people are very good at thinking, some people can become very good at thinking by practising a lot, while others are not that good at thinking but can do other things well. God wants us to accept our differences and not to be unkind to people who are different to us. Read *1 Corinthians 12:21-24*, paying attention to the idea that the 'head' (or good thinker) cannot say to another body part, 'I have no need of you!' Read the passage in a child friendly version and pray that God will help us to show our *gratitude* for the brain we have been given by using it well, taking care of it and accepting different people's ability to use their brain

- Identifies a biblical perspective
- Presents an understanding on the importance of making good decisions
- Identifies solutions to problems
- Takes personal responsibility for own behaviour

- Identifies a biblical perspective

- Identifies a biblical perspective
- Presents an understanding on the importance of making good decisions
- Identifies solutions to problems



Reflect continued

questions and activities

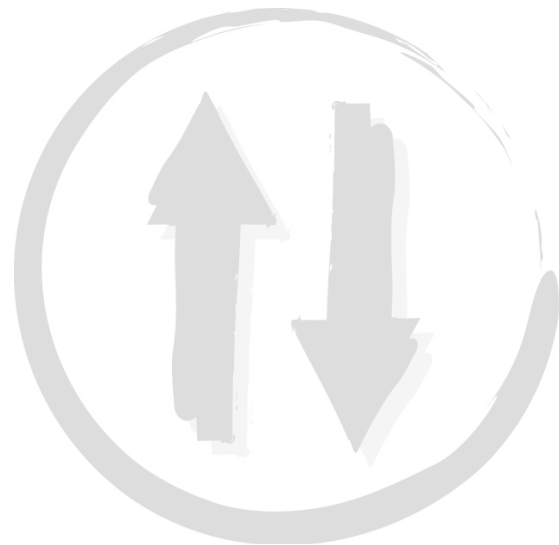
indicators of achievement

God expects us to our ability to think when we are tempted to do the wrong thing. When God reminds us not to make a bad choice, some people call this our conscience. Read in *Genesis 4:6-8* how God reminded Adam and Eve's son, Cain, about making the right choice

- Identifies a biblical perspective

Read *Psalms 139:1- 18* in several child friendly versions. Spend some time worshiping God for the amazing gift of a brain to direct all the actions and functions of our bodies

- Identifies a biblical perspective





Resolve

questions and activities

indicators of achievement

Identify how what you have personally learnt might impact who you are and what you do. Consider how this study might affect your actions in the future:

Heart

Your attitude toward God for the generosity shown in giving you a brain to think about things and make choices of your own

Head

Your thinking about how to care for your brain and use it well

Hands

Your actions in taking care of the brain that God has given you

Mouth

How you might communicate the importance of thinking about choices and caring for our brains

Feet

Where you stand on an issue about showing love or care for people with impaired brain function

Use De Bono's Thinking Hats to help you determine what response you might choose

White Hat: *What else do you need to how to care for or exercise your brain?*

Black Hat: *What problems might you have in doing this?*

Yellow Hat: *What might be the benefits of having a healthy brain?
How will it help? Why is it worth doing?*

Red Hat: *How do you feel about thinking through the consequences of right and wrong choices?*

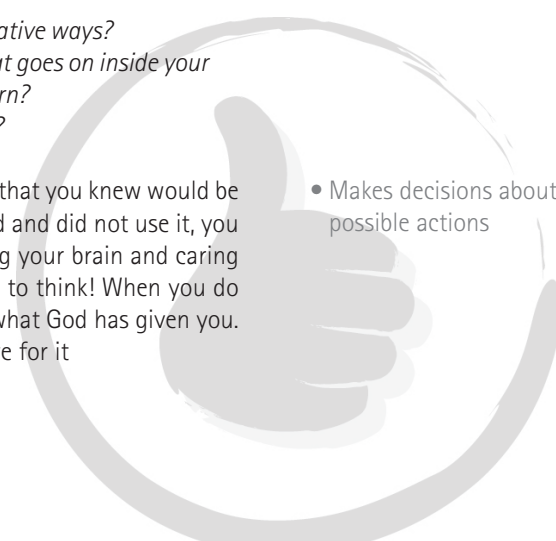
Green Hat: *How could you exercise your brain in creative ways?*

Blue Hat: *What have you learned so far about what goes on inside your head and what would you still like to learn?*

Purple Hat: *How could you pray about thinking well?*

Your brain is a gift. If you gave your mother a present that you knew would be very helpful for her, but she put it away in a cupboard and did not use it, you would not feel that she was very grateful for it. Using your brain and caring for it shows God how grateful you are for the ability to think! When you do not do your best, you are not showing *gratitude* for what God has given you. Ask God to help you to use your brain well and to care for it

- Makes decisions about possible actions





Respond

questions and activities

indicators of achievement

Take individual or group action:



Change your attitudes

Caring for our brain shows how grateful we are for being given such a gift. Describe how people who care about the health of their brain act. Thank God for the gift of being able to think

- Recognises the elements of wise choices
- Develops relationship with God



Change your thinking

Make a personal chart about caring for your brain. Allow space to tick off the things that you have done each day to show how grateful you are for the brain God has given you. You might include such things as:

- Drank 4 cups of water
- Ate green vegetables
- Did some exercise
- Ate some fruit
- Did some reading
- Ate some fish or red meat
- Solved a puzzle
- Learnt something new, etc

- Recognises the elements of wise choices
- Sets goals



Take action

Take a 'brain food' break as a class each morning in which you have nuts, fruit or other healthy snacks

- Recognises the elements of wise choices

You can take action to ensure that your brain is as healthy as it can be and that you are using it well. Complete the following:

- Map out an eating plan for a week that includes 'brain foods', and follow it
- Map out some aerobic exercises for a week, and follow it

- Recognises the elements of wise choices
- Shows initiative in actively responding
- Sets goals

Organise to visit or assist someone who struggles with a brain disorder of some kind, or invite someone to speak to your class about how you could best show love and care for them

- Shows initiative in actively responding
- Demonstrates care for others
- Makes friendships





Respond continued

questions and activities

indicators of achievement



Communicate your learning

Create a display about *What happens inside my head?* Plan together what you will include in the display in order to communicate what you have learnt. Here are some suggestions:

- A diagram of the brain featuring things that you have learnt about it
- A model showing what the brain is connected to
- Some posters about how to care for our brains
- Some scriptures you have looked at or a prayer of *gratitude* for the ability to use your brain

Write a play that shows how the brain communicates with other parts of your body. Film it to show to others

Plan a *Brain Olympics* or a *Brain Aerobics*. Include stations where students must answer quiz questions about the brain or how to care for it, some physical exercises, some puzzles to solve, some water to drink or some fruit or vegetables to eat

Write a script for a tour guide who might board *The Magic School Bus* when Ms Frizzle and her students arrive at the brain. Explain what they can see as they tour around the brain and what they need to know about the brain

Tell your teacher the things that you think have helped you best to remember the facts or spelling you have practised this term

- Communicates confidently and creatively
- Works in a team benefiting from each person's strengths

- Works in a team benefiting from each person's strengths
- Communicates confidently and creatively

- Communicates confidently and creatively
- Works in a team benefiting from each person's strengths

- Communicates confidently and creatively

- Has a balanced view of self, recognising both strengths and weaknesses



Stand for what is right

Meet with a partner to learn to do something together. Take turns to teach your partner how to do something that you understand and are good at

- Has a balanced view of self, recognising both strengths and weaknesses
- Communicates confidently and creatively





Review and record

questions and activities

indicators of achievement

Consider what you have learned and the skills you have developed:

Tell a partner about what you have learnt about good ways to help you learn this term, and set some goals for next term's spelling or basic facts

- Identifies new learning
- Sets goals

Look at the behaviour of students in the playground and identify:

- *What risky behaviour could lead to a nasty fall or head injury?*
- *What should be done about this?*

- Evaluates our attitudes
- Evaluates our actions
- Evaluates our research

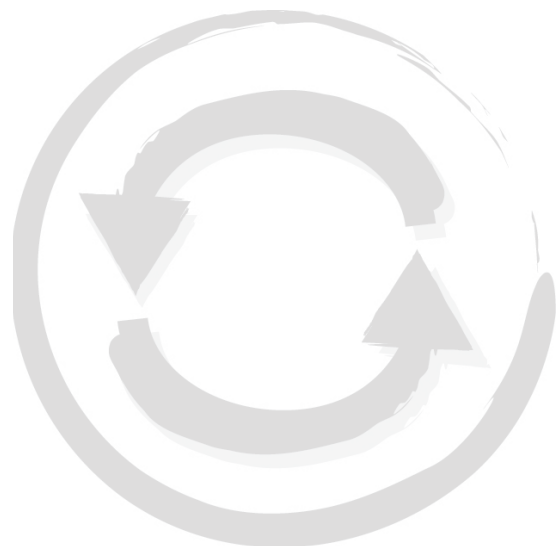
In teams, participate in a quiz about the things you have learned in your investigation this term

- Identifies new learning
- Evaluates our research

Share with a partner:

- What you know about each of the *Key Areas of Investigation*
- Which activity you enjoyed the most and what you learned from it
- The most surprising thing you learned from our study this term
- The activity which helped you the most, to understand what happens inside your head and how you can show *gratitude* for the ability to use your brain

- Identifies new learning
- Evaluates our attitudes
- Evaluates our research
- Demonstrates co-operative learning skills





Rejoice!

questions and activities

indicators of achievement

Celebrate your learning:

Have a class party to celebrate the goals you have achieved and how much you have learnt this term

Invite students, parents and friends to view your display and see the plays you have filmed. Then make teams of students and visitors to participate in a *Brain Aerobics* or *Brain Olympics*

- Celebrates our health and wellbeing
- Celebrates God's presence in our lives and in our world





Scriptures relevant
to this unit



WHAT HAPPENS INSIDE MY HEAD? SCRIPTURES RELEVANT TO THIS UNIT

Genesis 1:27

So God created mankind in his own image, in the image of God he created them; male and female he created them.

Genesis 4:6-8

6 Then the LORD said to Cain, "Why are you angry? Why is your face downcast? 7 If you do what is right, will you not be accepted? But if you do not do what is right, sin is crouching at your door; it desires to have you, but you must rule over it." 8 Now Cain said to his brother Abel, "Let's go out to the field." While they were in the field, Cain attacked his brother Abel and killed him.

Psalms 19:14

May these words of my mouth and this meditation of my heart be pleasing in your sight, LORD, my Rock and my Redeemer.

Psalms 119:11, 15, 18, 27, 34, 36, 97, 112

11 I have hidden your word in my heart that I might not sin against you.

15 I meditate on your precepts and consider your ways.

18 Open my eyes that I may see wonderful things in your law.

27 Cause me to understand the way of your precepts, that I may meditate on your wonderful deeds.

34 Give me understanding, so that I may keep your law and obey it with all my heart.

36 Turn my heart toward your statutes and not toward selfish gain.

97 Oh, how I love your law! I meditate on it all day long.

112 My heart is set on keeping your decrees to the very end.

Psalms 139:1-18

1 You have searched me, LORD, and you know me. 2 You know when I sit and when I rise; you perceive my thoughts from afar. 3 You discern my going out and my lying down; you are familiar with all my ways. 4 Before a word is on my tongue you, LORD, know it completely. 5 You hem me in behind and before, and you lay your hand upon me. 6 Such knowledge is too wonderful for me, too lofty for me to attain. 7 Where can I go from your Spirit? Where can I flee from your presence? 8 If I go up to the heavens, you are there; if I make my bed in the depths, you are there. 9 If I rise on the wings of the dawn, if I settle on the far side of the sea, 10 even there your hand will guide me, your right hand will hold me fast. 11 If I say, "Surely the darkness will hide me and the light become night around me," 12 even the darkness will not be dark to you; the night will shine like the day, for darkness is as light to you. 13 For you created my inmost being; you knit me together in my mother's womb. 14 I praise you because I am fearfully and wonderfully made; your works are wonderful, I know that full well. 15 My frame was not hidden from you when I was made in the secret place, when I was woven together in the depths of the earth. 16 Your eyes saw my unformed body; all the days ordained for me were written in your book before one of them came to be. 17 How precious to me are your thoughts, God! How vast is the sum of them! 18 Were I to count them, they would outnumber the grains of sand— when I awake, I am still with you.

Proverbs 3:21

My son, do not let wisdom and understanding out of your sight, preserve sound judgment and discretion.

Ecclesiastes 10:2

The heart of the wise inclines to the right, but the heart of the fool to the left.

Isaiah 55:8-9

8 "For my thoughts are not your thoughts, neither are your ways my ways," declares the LORD. 9 "As the heavens are higher than the earth, so are my ways higher than your ways and my thoughts than your thoughts."



WHAT HAPPENS INSIDE MY HEAD? SCRIPTURES RELEVANT TO THIS UNIT

Romans 1:21

For although they knew God, they neither glorified him as God nor gave thanks to him, but their thinking became futile and their foolish hearts were darkened.

1 Corinthians 12:21-31

21 The eye cannot say to the hand, "I don't need you!" And the head cannot say to the feet, "I don't need you!" 22 On the contrary, those parts of the body that seem to be weaker are indispensable, 23 and the parts that we think are less honorable we treat with special honor. And the parts that are unpresentable are treated with special modesty, 24 while our presentable parts need no special treatment. But God has put the body together, giving greater honor to the parts that lacked it, 25 so that there should be no division in the body, but that its parts should have equal concern for each other. 26 If one part suffers, every part suffers with it; if one part is honored, every part rejoices with it. 27 Now you are the body of Christ, and each one of you is a part of it. 28 And God has placed in the church first of all apostles, second prophets, third teachers, then miracles, then gifts of healing, of helping, of guidance, and of different kinds of tongues. 29 Are all apostles? Are all prophets? Are all teachers? Do all work miracles? 30 Do all have gifts of healing? Do all speak in tongues? Do all interpret? 31 Now eagerly desire the greater gifts.

Ephesians 1:22-23

22 And God placed all things under his feet and appointed him to be head over everything for the church, 23 which is his body, the fullness of him who fills everything in every way.

1 Peter 5:7

Cast all your anxiety on him because he cares for you.



Understanding Interact

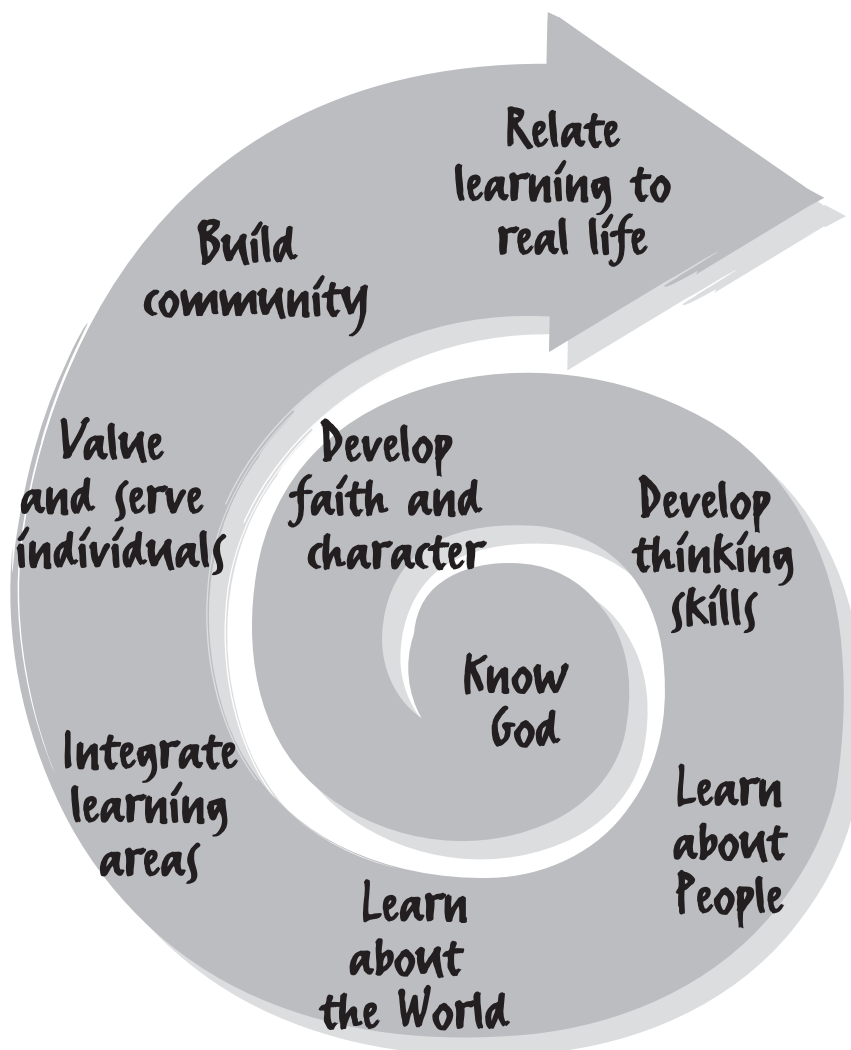


THE INTERACT RESOURCES

The *Interact Curriculum* is a biblically-based and integrated programme of learning suitable for students in Years 1-8. It is designed to inspire teachers with a multitude of creative ideas, questions and learning activities through which students can engage in learning about God and his world.

This *Interact Teacher Manual* is part of a set of manuals produced for a single term's work on an integrated theme. The *Interact Curriculum* provides teacher manuals in the subject areas of Devotions, Science, Social Science, Health and English on 16 such themes over a four-year cycle. Additional resources are also available in other subjects, including reproducible student worksheets entitled Discovery Sheets.

The *Interact Curriculum* is designed to encourage students to interact with God, with others and with their world in the course of their learning day, and it is our intention to serve teachers by resourcing them with leading-edge curriculum material that helps students to:





OPTIONS FOR USING THIS INTERACT TEACHER MANUAL

Introduction:

This *Interact Teacher Manual* is designed to give you many different ideas from which to select and plan a programme for your own class. It is recommended that the *Interact Learning Path* be used as a guide in the planning process, but there is plenty of scope for choice in this manual.

This *Interact Teacher Manual* will give opportunity for teachers to design either:

(a) A short, more traditional unit of work

By focusing on the *Firing Up* stage, covering the *Key Areas of Investigation* as a class, and selecting one or two activities in the *Focusing Forward* section, a teacher could design a short programme of work for a whole class lasting two to three weeks and follow it with assessment.

(b) A longer inquiry investigation

By working through the process of the *Interact Learning Path*, it will be possible to develop understanding of key concepts and skills in the *Firing Up* section, and then to ignite student enthusiasm to take responsibility, in negotiation with the teacher, for their own research, reasoning, reflecting and responding. This will engage the students in developing questioning and research skills and therefore equip and inspire them for future learning.

(c) A combination of both

The more independent students in the class could be given more control over their learning by setting them off on their independent inquiry approach whilst the teacher approaches the topic in a more traditional / teacher-centred approach with the remainder of the class.

N.B. Regardless of what approach to the material is used, the *Interact Learning Path* provides the structure so that students are given opportunity to have some degree of choice about their learning. Because they have more ownership, deeper and more independent learning may occur.



PLANNING WITH INTERACT

- 1. Term Overview**

Read the *Term Overview* document at the front of the Term Folder to understand the integrating thread of the term and the national curriculum requirements.
- 2. Understanding *Interact***

Read the *Understanding Interact* section on page (I) so that you are confident in understanding the principles and processes of the *Interact Resources*.
- 3. Overview and Introduction**

Read these pages to understand what this subject area is about, and where it fits into the integrated term's work.
- 4. Big Idea and Focii**

Read the *Big Idea*, the *Habit of Character Focus* and *Habit of Mind Focus*, the *Key Understanding* and the *Focus Question* which summarise the main focii of this unit.
- 5. Biblical World View and Background Information**

Read these pages to familiarise yourself as a teacher with the content being taught this term. Look up the *Scriptures* (found at the end of the manual for your convenience).
- 6. Key Areas of Investigation**

These four points summarise the content the students may learn in this subject. Confirm with your national requirements and determine your priorities.
- 7. Key Learning Intentions**

These points give ideas for Skills you can select as focii during this unit. All the skills listed are found in the *Indicators of Achievement* throughout the book, and any can be selected to become the focus of your teaching and assessment of skills for this subject this term. Determine what is appropriate for your class.
- 8. Plan for School-wide Activities or Visitors**

Meet several times with other staff to engage personally and corporately with the term theme and plan school-wide activities.
- 9. Determine Main and Subsidiary Topics**

Determine the main focus topic for your class (e.g. Science, Social Science, Health) this term and the supporting topics. Note that the main focus topic may vary between classes. At the conclusion of the term, when school-wide presentations are made, all students may benefit from each other's deeper learning in particular topics.
- 10. Plan**

Plan, using the *Interact Learning Path* as a guide.

Have a great term teaching!

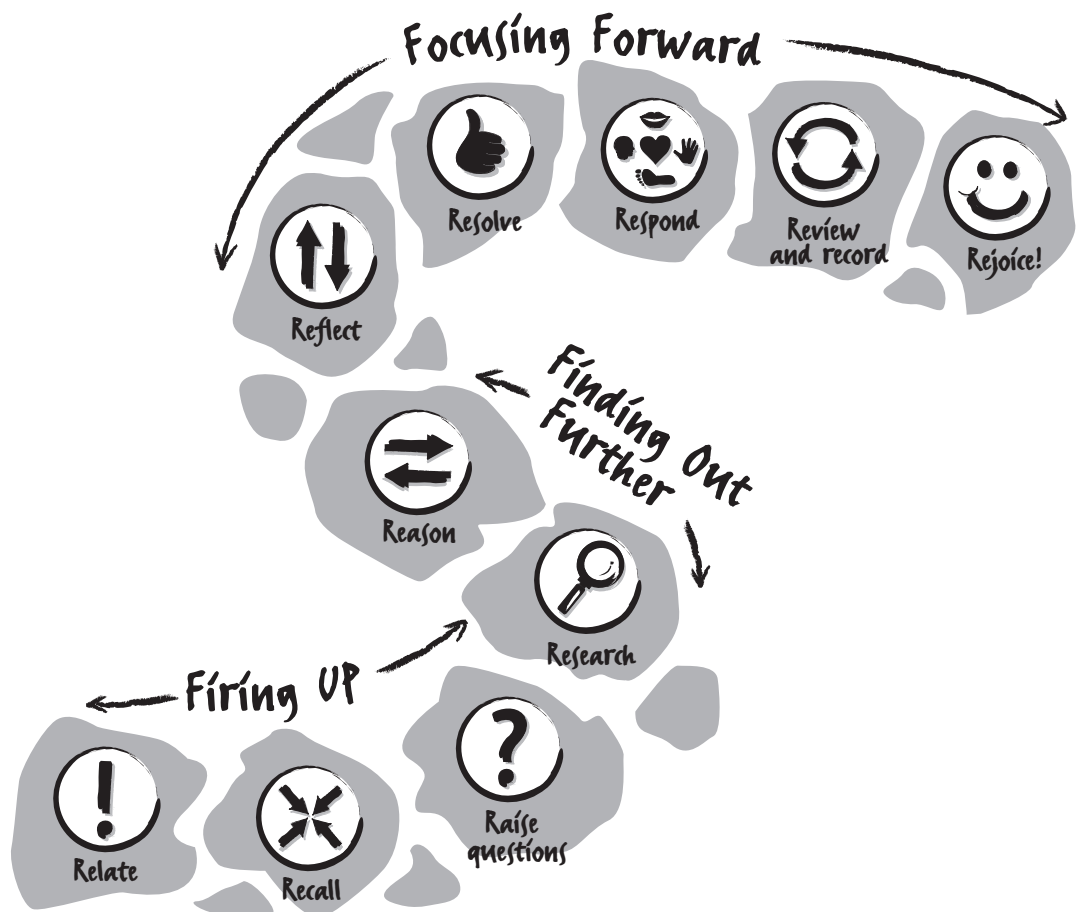


THE INTERACT LEARNING PROCESS

The *Interact Curriculum* resources are being developed in a framework of learning, developed by Helen Pearson, called the *Interact Learning Path*.

The *Interact Learning Path* helps students to recall prior knowledge, to develop knowledge, skills, understanding and godly wisdom, to consider how what they have learned impacts who they are and what they do, to respond with the benefit of new skills and understanding, to evaluate their work, and to celebrate their learning in a range of ways as outlined below:

The *Interact Learning Path*



We hope you enjoy discovering, with your students, a fresh perspective on the world!



KEY LEARNING INTENTIONS

We are learning to:



Relate
Engage

Connects with the topic and relates to others



Recall
Remember

Recalls prior knowledge and experiences



Raise questions and recognise problems
Enquire

Writes open questions

Creates a framework to focus an inquiry

Plan

Plans a schedule of tasks



Research
Gather information

Uses a range of sources to research including original sources, reference texts, archives, people, media, computer technology, places

Identifies relevance of information

Listens to people

Conducts surveys and interviews

Locates verses in the BibleLearns new skills

Express ideas

Draws a diagram to show connections

Creates a model

Organise information

Describes findings

Identifies main ideas

Shares ideas

Sees connections between ideas

Thinks creatively



KEY LEARNING INTENTIONS

We are learning to: *continued*



Reason Interpret information

Understands and expresses uncertainties
Evaluates consequences
Identifies cause and effect
Thinks critically
Gives reasons and supporting evidence
Recognises analogies
Compares and contrasts



Reflect Analyse

Identifies a biblical perspective
Identifies solutions to problems
Takes personal responsibility for own behaviour
Presents an understanding on the importance of making good decisions



Resolve Make judgments and decisions

Makes decisions about possible actions



Respond Demonstrate growth in Christian character

Develops relationship with God

Make personal responses

Has a balanced view of self, recognising both strengths and weaknesses
Makes friendships
Recognises the elements of wise choices
Shows initiative in actively responding
Sets goals
Communicates confidently and creatively

Accept responsibility to contribute to the world

Works in a team benefiting from each person's strengths
Demonstrates care for others



KEY LEARNING INTENTIONS

We are learning to: *continued*



Review and record
Judging the process

Evaluates our attitudes
Evaluates our actions
Evaluates our research
Demonstrates co-operative learning skills
Identifies new learning
Sets goals



Rejoice!
Celebrate

Celebrates our health and wellbeing
Celebrates God's presence in our lives and in our world



ACKNOWLEDGEMENTS

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Helen Pearson

Co-author, Editor and Publisher of *Interact Curriculum*



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