INFOBYTES

Numbers 1-20

RA 10-11 yrs

LEVEL 5

SCHOOL SITE LICENCE: For use at the school of purchase only
### InfoBytes - Level 5 - RA 10-11 yrs

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**What are StoryBytes and InfoBytes?**

These resources were originally developed to provide teachers with short pieces of text that could be completed in one guided reading session. They are especially formatted for our SharpReading approach to reading instruction but can be used in any way the teacher wishes.

Our SharpReading Guided Reading lessons for Stage 3-6 are aimed at habitualising deep processing skills, so four paragraphs usually take around 25 minutes, an ideal timeframe for a guided reading lesson. Follow-up activities provide independent responses for the students who have processed the text deeply. Visit our website for a more extensive explanation of the way you can use StoryBytes and InfoBytes.

**Why no illustrations?**

Our understanding of the developmental progression of the reader is that it generally takes about two years of instruction before the beginning reader develops true fluency with decoding strategies. During this time it is important for the text they are reading to include picture prompts which helps to scaffold the constructing of meaning.

However, once decoding strategies have been habitualised, (often at a reading age of around 7-8 yrs) the reader is now free to work on the skills required to construct meaning at a deep level. This is what we aim for in SharpReading Stages 3-6 and our research tells us that this process is aided by the absence of picture prompts.

**What do the levels mean?**

There is a lot of debate about the validity of ‘Reading Ages’. We maintain that, despite the controversy, they still provide a quick, understandable benchmark for measuring achievement. The levels referred to here coincide with the levels in our Informal Prose Inventory testing procedure and line up with PAT Levels (Progress Achievement Test - NZCER and ACER).

These levels assigned to the text allow for the quick identification of appropriate reading material once an instructional reading age (or level) has been identified.

**Why are there only some levels?**

We have started off providing a spread across the levels from Level 1 (RA 7-8 years) to Level 9 (RA 14+ years). The idea is to back fill some of the missing levels (the odd numbers) as time and motivation allows.

For more about our SharpReading approach to reading instruction visit our website www.sharpreading.com. We specialise in teacher workshops or you can do the training online.

**Characteristics of the Levels**

Level 1 (RA 7-8 yrs): Simple sentences with one or two ideas strung together. Concepts are clearly explained without the need for much inference.

Level 3 (RA 8.5-9 yrs): The progression from Level 1 is that the content remains similar but the sentence structure becomes more varied thus slightly more challenging. There are still usually only two ideas in a sentence for the reader to hold onto but some changes in the vocabulary.

Level 5 (RA 10-11 yrs): Text at this level reflects the ability of the reader to hold onto more complex ideas over longer sentences. Vocabulary is more challenging and meaning may be spread over several sentences. This level is the most often used for students with a 10+ reading age as it provides variety and interest in sentence construction while not overwhelming the student who is developing Stage 3 SharpReading skills - constructing meaning at a deep level.

Level 7 (RA 12-13): Coming soon. We are developing this level because we have found that the jump from Level 5 to Level 9 is too big. This text will provide a challenge for the more able primary aged children without putting them in the cognitive overload that can occur with Level 9.

Level 9 (RA 14+ yrs): Here we have attempted to provide very challenging text to test your most able readers. Text at this level includes complex sentence structures and high end vocabulary. However, just because a student can read text at this level, it doesn't mean they can process and understand it adequately. Guided reading should not be a vocabulary lesson so use this level with some caution.
Cats vs Dogs

When it comes to toilet habits, cats win hands down. If you have a dog, no matter what unpleasant weather is being unleashed outside, he needs to be taken for a walk to do his business. If your beloved cat needs to relieve herself, she will be happy to use her litter-box without inconveniencing you or she will patiently wait by the door until you notice and let her out. Once the job is done your cat will happily cover up the evidence without you having to scoop the poop.

Then there is the problem of dog odour. Take a dog for a walk and his first thought is to grovel around in the dirt. He has no concern for cleanliness and for some unexplainable reason, no matter how often you give him a bath, he will still have that doggy smell. Cats are totally different. They spend hours every day licking and preening themselves. It’s not because they are vain, neat freaks. They just naturally want to be clean. It is important for their health and keeps them happy … and you as well.

Silence is the golden rule for cats. Constant meowing rarely occurs as cats have learned that they are taken more seriously if they save their precious meows for when hunger calls. Your cat will always respect your need for peace and quiet. On the other hand, dogs never worry about being a nuisance. They will bark at pretty much everything; the mailman, children walking past your house on their way to school, a police siren, a harmless butterfly, other dogs. This causes great distress to both your family and the neighbours.

Finally, cats are cheap exterminators. When was the last time your dog did anything useful like catch a mouse? That’s right - never. Mice, rats and even certain insects leave the property once a cat moves in. They don’t want to share a home with a hunting cat. Rodents are often disease carriers, so that pussycat could possibly save your life. OK, so it may not be pleasant when she drops a dead, bloodied mouse at your feet in the morning, but it’s really her gift to show how much she loves you. Thank her for a job well done and be glad you didn’t get a dog.

FOLLOW-UP ACTIVITIES

1. Select five tricky words from the InfoByte.
   For each word look up the meaning, write it down.
   Write your own sentence using the word to show that you really understand what it means.
2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.
3. Make a poster showing the information about cats and dogs presented in this InfoByte.
4. Write a letter to the author agreeing or disagreeing with his point of view.
5. Design an automatic pooper scooper for dogs that will get rid of the toilet problem mentioned.
Tattoos

It appears that just about everyone has a tattoo these days. If you wander down the street it won't be long before you see a tattooed arm or leg, or even a face. But it hasn't always been that way. Not so long ago the only people who had tattoos were sailors, bikers and gang members. It was not a good idea to have a tattoo if you wanted to get a respectable job. Now tattoos are very fashionable, worn by all sorts of people in all sorts of styles and designs.

People decide to get tattoos for many different reasons. It could be to hide ugly scars. Some people tattoo the name of a boyfriend or girlfriend or a special person that they want to be reminded of. Some people get tattoos to show that they belong to a special organisation or have strong beliefs in a cause. Other people see their tattooed body as a work of art. There may be a lot of careful planning in designing a tattoo but many people are impulsive and do it on the spur of the moment.

If you ever consider getting a tattoo you need to know what you are letting yourself in for. Tattooing is all about getting ink under your skin. This is done using a tattoo machine which pushes a needle in and out of your skin, making holes and leaving a small amount of ink behind. With hundreds of these needle holes a design can be made. The holes heal over leaving the ink trapped beneath the skin. Remember this is permanent - you can't wash the ink off.

If a description of getting a tattoo hasn't put you off, here are some excellent reasons for not getting a tattoo. What will happen if you get bored with your tattoo and want something different? How will you feel if in a few years it is no longer fashionable to have a tattoo? Tattoo removal is very expensive and it is a very painful process. Getting a tattoo is a serious business so it pays to be wise and think before you ink.

FOLLOW-UP ACTIVITIES

1. Select five tricky words from the InfoByte. For each word look up the meaning, write it down. Write your own sentence using the word to show that you really understand what it means.
2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.
3. Make a poster encouraging people to get a tattoo OR warning about the problems.
4. Write a poem describing what it is like getting a tattoo.
5. Design your own tattoo; a message or a clever design. Use diagrams and labels to show your wonderful ideas.
The Truth about Pirates

Everyone is familiar with pirates. TV and books have introduced us to likeable characters such as Captain Pugwash. Captain Hook has sent a shiver of fear down our spines and we could never quite work out the strange behaviour of Captain Jack Sparrow. Who hasn’t been to a dress-up party where there were pirates with black eye patches, fake hooks and peg legs, waving wicked looking fake swords. But what is the truth about these colourful characters? Were they real historical people or something that has been made up?

Piracy was at its height 300 years ago. Many pirates sailed the seas attacking and looting cargo ships. In those days honest work was hard to find. Joining a pirate ship gave men the chance to get rich quickly. But it was also a very dangerous life. Many pirates were killed in battle or died from horrific wounds. As outlaws, they were at sea for many boring months at a time. They drank a lot of rum to pass the time between their pirate attacks. Their food was terrible, often filled with weevils and maggots.

As countries increasingly used ships to transport goods there were more opportunities for piracy at sea. The pirates’ biggest prize was silver and gold but any merchant ship was a target. The pirate ship would sail alongside pretending to be friendly then raise their pirate flag, ready to attack. The crew being threatened had a choice. If they surrendered, the pirates would board their ship and take everything that was valuable. If they were lucky, the pirates would then let the ship sail on. If they chose to fight, the pirates were merciless.

Successful pirate attacks had become such a problem that in 1720 action had to be taken. Huge ships, loaded with canons and soldiers, were sent out to hunt down the pirates. There were fierce battles as the most infamous pirates such as Blackbeard fought to the death. Those who surrendered were brought back in chains. After a speedy trial they faced death by hanging and their bodies were left dangling in iron cages as a warning to everyone. This was the end of the golden age of the pirate.

FOLLOW-UP ACTIVITIES

1. Select five tricky words from the InfoByte. For each word look up the meaning, write it down. Write your own sentence using the word to show that you really understand what it means.
2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.
3. Draw a picture of a ferocious pirate that would scare anyone into surrendering without a fight.
4. Write a short story, a poem or a rap about a day in the life of a pirate.
5. Design a pirate ship that would overcome two of the main problems of olden day pirating - boredom and terrible food. Use diagrams and labels to show your wonderful ideas.
A Bright Idea

Alfredo Moser's invention is lighting up the world. In 2002, this Brazilian mechanic had a light-bulb moment. Frustrated by the frequent power cuts in his workshop, he came up with the idea of a solar powered light bulb. All he needed was a plastic water bottle filled with water and a little bit of bleach. His innovation has spread throughout the world, used in over one million homes and workshops in under-privileged cities and villages.

Making a solar light bulb is very simple. Fill a clean plastic two-litre bottle with water. Add a small amount of bleach to stop any algae growing in the water and cap the bottle. Next cut a hole in the roof of the house about the same size as the water bottle. Push the bottle half way up into the hole. Use a sealant around the bottle so that the roof is waterproof and no rain can get in.

How does the solar light bulb work? When light passes from air into water it gets refracted or bent. Rays of sunlight fall on the portion of the bottle that is exposed. These rays bend as they enter the bottle full of water. As they leave through the rounded bottom of the bottle, they get bent again and spread out, illuminating the room. The amount of light can be equal to a small electric light bulb depending upon how sunny it is outside. Of course the light bulb will only work during the day.

This simple invention is life changing for millions of poor people all over the world. They are forced to live and work in small huts with no windows and no electricity. They have to use candles and kerosene lamps for light. The kerosene is expensive and the light is not very bright. These lamps also give off toxic fumes and there are many accidental fires that spread quickly from house to house. This new light requires no fuel, is healthy and safe.

FOLLOW-UP ACTIVITIES

1. Select five tricky words from the InfoByte. For each word look up the meaning, write it down. Write your own sentence using the word to show that you really understand what it means.
2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.
3. Draw a diagram with labels showing how the Moser light works.
4. Make an advertisement for the Moser light so that more people will know about it.
5. Design something else that you could do with plastic drink bottles. Use diagrams and labels to show your wonderful ideas.
What to do with all that ...

Getting rid of body wastes is something that every living thing has to do. This is very normal and nature has its own way of dealing with it. When mixed into the soil, very small organisms break down the wastes and return the good nutrients back into the soil. The first humans were hunters and gatherers. They went to the toilet on the ground just like all the other land animals. When they had done their business, they moved on and nature happily went to work on the wastes.

However, as humans began to live in larger numbers in towns and then cities, getting rid of increasing amounts of body waste became a problem. One solution was to dig a large pit, called a cesspool, under a house to collect the wastes. The smell coming up through the floorboards of the house was often terrible. Stories are told of people falling through rotten floorboards and drowning in their cesspool. These pits were supposed to be cleaned out regularly but as the population increased it became impossible to keep up. Many cesspools overflowed into the street.

In London, the first really big city, many people lived in overcrowded buildings with very few toilets. People were forced to go to the toilet in narrow side streets and alleyways or wherever they could find a place. Chamber pots were also used and the contents thrown out into the street. When it rained the streets turned into rivers of human waste. All of this drained away into the River Thames, which was also the main supply of drinking water. As a result there were many outbreaks of disease that caused thousands of deaths.

Today, modern cities have huge pipes running beneath the city. Every house has a flushing toilet that is connected up to these pipes. All the human waste is pumped away to a special plant where liquids are separated off and released back into the water system once they have been treated and are safe for the environment. Solid waste is collected as sludge and, once treated, can be used on farms. However it must be remembered that 60% of the world's cities are still struggling to cope with this problem.

FOLLOW-UP ACTIVITIES

1. Select five tricky words from the InfoByte. For each word look up the meaning, write it down. Write your own sentence using the word to show that you really understand what it means.
2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.
3. Draw a diagram with labels showing how the sewage system in modern cities works.
4. Write a poem or a rap about the disgusting smell in old London.
5. Design an alternative method for getting rid of human waste in overcrowded cities. Use diagrams and labels to explain your great ideas.
Stay Away from Me

All living things are part of the food chain. They are constantly searching for other living things to feed on while desperately trying to stop other things from eating them. They have learned ways to behave and have the body parts they need to protect themselves and their families from predators. Some have hard shells and spikes which make them hard to eat. Others have sharp teeth and razor sharp claws, or they can run very fast. Here are three interesting ways that animals avoid being someone else’s dinner.

The Texas horned lizard has a startling method of defending itself. If it feels threatened it is able to squirt streams of blood from its eyes, usually aimed at the mouth or the eyes of the predator. If the predator has the lizard in its mouth it will drop it and try to wipe off the blood allowing the lizard to escape. The blood also has an unpleasant taste. Many animals have learnt to avoid bad tastes, as they often mean poison.

The opossum is famous for a most cunning trick to avoid being someone else’s dinner. It is called “playing dead”, but the truth is it is not a trick. When in extreme danger the opossum gets so anxious that it will collapse and appear to be very dead. It will remain in this state for hours. It also gives off a very unappetising dead smell. This is usually enough to discourage most predators who prefer to eat fresh meat that they have killed themselves.

Then there is a special termite who will give up its life to protect the nest it belongs to. When danger approaches, the oldest members of the nest are sent out as suicide bombers. They are no longer any use for the work in the nest. But during their life they have been storing a special liquid in a pouch on their back. As the enemy approaches, the termite will squeeze the pouch making it explode. This sends a sticky liquid over the enemy which kills it. Unfortunately it also kills the termite.

FOLLOW-UP ACTIVITIES
1. Select five tricky words from the InfoByte.
   For each word look up the meaning, write it down.
   Write your own sentence using the word to show that you really understand what it means.
2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.
3. Draw diagrams with labels to show that you understand how these defence systems work.
4. Write a poem or a rap about “Stay away from me”.
5. You are an insect or a mammal. Design new ways of getting rid of predators that want you to be their dinner.
   Use diagrams and labels to explain your great ideas.
Unsinkable

On April 1912, the Titanic set off on her maiden voyage across the Atlantic Ocean. She was the largest and best equipped ship that had ever been built. No expense had been spared to create a luxury hotel on water. The latest design ideas also meant she was the safest ship ever. The hull was divided into sixteen separate sections, each of which could be automatically sealed off if ever the boat started leaking. Many thought that this would make her unsinkable.

On day three of her voyage, the Titanic received warnings from nearby ships about large icebergs in the area. The ship continued to steam on through the night at close to full speed. At 11:40 p.m. a lookout spotted a huge iceberg straight ahead. Every attempt was made to change course but the size and the speed of the ship made this very difficult. The Titanic crashed into the side of the iceberg, slicing open five of the sixteen watertight sections at the front below the water. Water rushed into the bow of the ship and she began to tilt downwards.

By 1:20 a.m. it was obvious that the ship was going to sink. Many passengers who had been asleep in their lower deck cabins were hopelessly trapped as the ship filled with water. The crew and passengers had not been trained for such an emergency. Not having nearly enough lifeboats for the number of people on board added to the panic. Women and children were loaded first and male passengers and crew were left behind. But in the confusion many of the lifeboats were launched only half full.

At 2:20 a.m., two hours and forty minutes after ramming the iceberg, the speed of sinking suddenly increased. As the front deck of the ship went under, the sea poured in through open hatches and passageways. The front of the boat, now totally filled with water, sank down into the ocean while the back of the ship lifted out of the water. It kept rising higher and higher with hundreds of people desperately clinging to it until suddenly, it slid down, disappearing into the murky depths. Fifteen hundred passengers and crew died in the icy waters that night making this one of the worst disasters at sea.

FOLLOW-UP ACTIVITIES

1. Select five tricky words from the InfoByte.
   For each word look up the meaning, write it down.
   Write your own sentence using the word to show that you really understand what it means.

2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.

3. Draw a diagram with labels showing how the Titanic sunk.

4. Write a poem or a rap about the sinking of the Titanic.

5. Design a luxury ship that is ABSOLUTELY unsinkable.
   Use diagrams and labels to explain your interesting ideas.
**What a Spectacle**

“Does anyone know what I have done with my glasses?” If you rely on glasses to see clearly you will know the feeling that goes with these words. If your vision isn’t very good, life without your glasses can be a very frightening and frustrating experience. It may surprise you to know that the glasses we wear today are quite a new invention. How did people who couldn’t see very well manage before they were invented?

Before the 1700s life was very difficult for people with poor eyesight. There was nothing that could be done for their condition. They had to get used to a fuzzy, out of focus world. But if they had minor eyesight problems this may have not been as big a problem as it is today. Books were very rare and only a few educated people could read. Craftsmen needed good eyesight for detailed work but if a person’s eyesight was not great, obviously they would choose a job where this wasn’t so important.

The invention of the printing press around 1440 resulted in the spread of literacy. There were more books available and more people wanted to read them. Older readers with weakening eyesight searched for ways to increase the size of the words in their books. The first reading aids appear to have been curved pieces of glass that were placed on the printed pages, enlarging the words. At some stage in the 1700s, two of these primitive lens were riveted together and held up to the eyes - the first pair of glasses!

As soon as glasses were invented, the challenge was to find a way to keep them in place. The makers came up with lots of suggestions for fixing the glasses to the wearer's nose. Nothing worked particularly well because everyone’s nose shape and size was different. Ribbons were tied around the head and weights were attached to the glasses but these were not great solutions. It took a surprisingly long time to get it right but today we finally have glasses that are easy to wear and are also fashionable.

**FOLLOW-UP ACTIVITIES**

1. Select five tricky words from the InfoByte.  
   For each word look up the meaning, write it down.  
   Write your own sentence using the word to show that you really understand what it means.

2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.

3. Draw a diagram with labels to show you understand how people used pieces of glass to help them read.

4. Write a poem or a rap about the history of spectacles.

5. Design a new way of attaching glasses to a person's head.  
   Use diagrams and labels to explain your great ideas.
**King of the Beasts**

It is a view held by many people that the lion is the king of the beasts. There is no evidence from the animal world that the animals see it that way. In fact, based on size and power, it seems that the lion comes second to the tiger in the cat family. It must be that there is something about the lion's lifestyle that causes us to view him as the king of the beasts. I think it has to do with similarities between the lifestyle of lions and our own human kings.

A king is usually someone who is very important and noble. The male lion gives the impression of being important and noble. His long beautiful mane makes him look like a king. His has a very loud magnificent roar that can be heard for miles. He doesn’t hide away. He lives out in the open and isn’t afraid of other animals. He is in control of everything around him. He even sits around for most of the day doing nothing, just like a king.

Human kings have always helped keep law and order. It is the king’s job to make laws that will help his subjects live peacefully. He also protects them from outside attacks. In return the people pay the king taxes. Male lions do the same sort of thing. The biggest and strongest male makes it known that he is the boss. He protects the pride from outsiders while the females do the hunting. This is quite unusual as all the other big cats live alone and look after themselves.

Whenever there is a king there will inevitably be someone else who thinks they can do a better job and will try to overthrow him. A clever king is always ready for this. It is no different in the lion kingdom. Young male lions are always waiting for an opportunity to take over the pride. The leader or the king of the pride must be able to fight off their attacks. But eventually, as he gets older and weaker, the lion king will be defeated by a younger, stronger lion and the new king of the beasts takes over.

**FOLLOW-UP ACTIVITIES**

1. Select five tricky words from the InfoByte. For each word look up the meaning, write it down. Write your own sentence using the word to show that you really understand what it means.

2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.

3. Draw a diagram with labels comparing the life of a human king and the life of a male lion.

4. Write a poem or a rap about the magnificent “King of the Beasts”.

5. Design some adaptations for the leader of the pride so that as he grows older he can still fight off the younger lions and retain his place as king. Use diagrams and labels to explain your great ideas.
Pompeii

Two thousand years ago, the world was shaken by the most deadly natural disaster that had ever been recorded. In less than 24 hours the city of Pompeii and a quarter of its population were wiped from the face of the earth. The people were used to regular earthquakes but no one suspected that a neighbouring mountain was a smouldering volcanic time bomb. Pressure from beneath the surface had been building up for hundreds of years.

On August 24, 79AD, at 1pm, Mount Vesuvius roared into life, firing a cloud of volcanic gas, boiling rock and ash 15-20 kilometres straight up into the sky. Everything came to a standstill as the people of Pompeii stood and watched this amazing display. As the top of the column of cloud began to spread out across the sky directly over Pompeii, it blocked out the sun, plunging the city into darkness. High up the boiling rock began to cool, turning into pumice stone which then began to rain down on Pompeii.

Fear and panic spread. People took to the streets to flee the city or sheltered indoors. Within hours the mountain had unloaded a hundred million tons of rock and ash onto Pompeii. Roofs collapsed under the weight. Doorways were blocked and those people sheltering inside were trapped. Worse was to follow. Part of the cloud above the volcano collapsed. A glowing blanket of hot gas and ash rolled down the side of Vesuvius at a terrifying speed and covered the city of Pompeii.

For those remaining in the city there was no escape from this fiery blast. People were suffocated by the superheated air racing through the city. Bodies were immediately buried in metres of ash. In just 18 hours the volcano had spewed out more than 10 billion tons of pumice, rock and ash leaving the city hidden from sight. The landscape around the city was changed forever. The surrounding port and river had disappeared. Within a few years no one could remember exactly where the city had once stood.

FOLLOW-UP ACTIVITIES

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   For each word look up the meaning, write it down.
   Write your own sentence using the word to show that you really understand what it means.
2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.
3. Draw a diagram with labels showing how Pompeii was buried.
4. Write a poem or a rap about the destruction of Pompeii.
5. Design a Pompeii volcano shelter which would protect you from the rocks, hot gas and ash. Use diagrams and labels to explain your ideas.
Insects - Future Food

Are you feeling like a plate full of fried crickets? Would you consider eating a bowl of toasted weaver ants? Not something that we would normally decide on when thinking about a delicious lunch. But it may well be the choice of the future. As the population keeps growing more and more of the world is after a limited supply of animal protein. Our land and water resources are being pushed to the limit to produce enough beef, pork and chicken to feed everyone who wants to eat it. The answer might be wriggling around at our feet ... insects.

Insects as a human food source have a lot going for them. They are full of protein and rich in the nutrients that our bodies need to stay healthy. Another big plus for the environment - insects emit much lower levels of greenhouse gases than do our normal farm animals and we don't need as much space to farm them. To top it off insects produce much more meat for every kilogram of food that you feed them so you get more for less.

But it will take a lot of hard work to get most people excited about eating insects. Generally we find eating animals a bit disgusting. Even the most enthusiastic meat eaters eat only a few of the species available to them. Trying to get people to eat insects is a bit like getting them to eat horse, rat or a creepy lizard. As well as the general yuck factor, when it comes to insects we know they feed off waste and rubbish and so we think of them as unhealthy and carriers of disease.

Despite these problems, scientists and cooks all over the world are working very hard to change the way we think. They know it will take time and it will have to happen gradually. Instead of serving up whole insects they are making products like cricket flour that can be added to existing food without anyone noticing. Maybe insect food will happen sooner than we think. So watch out, that crunchy something in your lunchbox may be more than you were expecting.

FOLLOW-UP ACTIVITIES

1. Select five tricky words from the InfoByte.
   For each word look up the meaning, write it down.
   Write your own sentence using the word to show that you really understand what it means.
2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.
3. Make a poster explaining why it is important to start eating insects.
4. Write a letter to the owner of an insect restaurant explaining why you won’t (or will) be coming to their restaurant for an insect meal.
5. Design a delicious insect meal. Use diagrams and labels to explain your great ideas.
**Time to Go**

The world of nature has many wonderful stories of the marvellous feats of everyday creatures. Take this fish, a long-finned eel, found in ponds, rivers, creeks and lakes, all along the east coast of Australia. It lives in a pond leading a pretty mundane existence preying on insects, fish and baby birds. But when it becomes an adult - which takes about 30 years - the final chapter of its life takes a truly remarkable turn.

After years of dreary pond life, one dark night, during a heavy rainstorm, this creature is overtaken by a deep-seated instinct. It abandons the safety of its comfortable habitat. Painstakingly, it wriggles it way across the ground towards its goal, a river or a stream, anything that will that will take it to its destination, the sea. But this is a fish? Survival out of water is not possible? And yet it happens. The rain falling and the water on the ground somehow make it possible.

If you don't think that is amazing, then tune in to what happens next! The fish is carried out to the ocean where its body has to make rapid modifications. Its gills transform so that they can function in salt water. Its stomach withers away to nothing because it no longer eats. Then the mind-boggling migration begins. The fish swims 2,000 km north to its breeding ground ... on an empty stomach. The fish is a female and she is carrying millions of eggs. When she arrives she spawns ... and then dies.

Her millions of baby eels now start drifting south on the East Australian Ocean Current. It takes two years to retrace their mother's 2,000 km journey and only a few survive. One dark night, when it is raining heavily, they sense the fresh water from the rivers, streams and stormwater drains flowing into the ocean. They are drawn upstream, struggling against the current. Leaving the water they wriggle through the undergrowth until they arrive at that pond and slither in. The circle of life has been completed.

**FOLLOW-UP ACTIVITIES**

1. Select five tricky words from the InfoByte.
   Look up the meaning of each word and write it down.
   Use each word in a sentence to show you know what it means.
2. For each paragraph decide on a heading which tells you what the paragraph was about.
3. Draw a diagram with labels showing the journey that these eels take - the circle of life.
4. Write a poem or a rap about this eel.
5. Design some new features for the eel that will help it get from the pond to the sea and back again.
   Use diagrams and labels to explain your great ideas.
Blue Jeans

It would be hard to find an piece of clothing that is more popular worldwide than blue jeans. What was once a reminder of the American West can now be found in just about anyone's wardrobe. Cowboys still wear them but so do models, businessmen, mothers and teenagers. A researcher has even done a study on this. In every country he visited, he stopped and counted the first 100 people to walk by. In each case he found that almost half the people wore jeans.

If you ask anyone why they wear jeans they will give you lots of different answers. Some people wear them for comfort. For others it's a fashion choice. Surprisingly, jeans were originally work clothes for farm and mine workers in America over a hundred years ago. Denim was used because it was a very tough material and small metal rivets were used to reinforce the seams and pockets. This meant that they were very strong and long-lasting. They were an instant hit with the workers of the time.

But the reason that jeans have such an enormous following today isn't just because they are strongly made and long-lasting. After World War 2, jeans became more than work clothes. People began to wear them as a sign of rebellion against the way things were. Movie makers began to dress the bad boys in their films in jeans. All of this made older people nervous. School administrators banned the wearing of jeans in schools in America. But of course that backfired because it only made them more popular amongst students.

During the 1960s, the wearing of jeans spread across the generations and beyond America. These trousers now represented an easier, happier American way of life, which Europeans wanted to be a part of. Jeans were cheap to buy and looked good whether they were old or brand new. They didn't have to be washed often or ironed at all. But the real secret to their success for all these years has been that they could be dressed up or dressed down - you can wear them anywhere.

FOLLOW-UP ACTIVITIES

1. Select five tricky words from the InfoByte.
   Look up the meaning of each word and write it down. Use each word in a sentence to show you know what it means.
2. For each paragraph decide on a heading which tells you what the paragraph was about.
3. Draw a time line showing the history of Blue Jeans.
4. Write a letter to your school principal explaining why you want to wear Blue Jeans to school.
5. Design a new pair of pants that will replace jeans as the best ever pants for everyone to wear. Use diagrams and labels to explain your great ideas.
Ewe Won’t Believe It!

When sheep reproduce they usually give birth to one or two lambs, occasionally three. But this week an ex-sheep farmer in Thames, Weston Finlay, was in for a shock when his sheep gave birth. Ever since he had sold his farm, Finlay has always kept a sheep on his small life style property in town to keep the lawns in check. When he was offered a second ewe six months ago as a companion for his first, he didn’t expect any problems. Except that the new sheep was not a ewe at all.

"When the new sheep arrived I knew straight away it was a ram not a ewe,” Finlay said. “I wondered whether this might lead to an increase to my sheep population.” Sure enough, one morning in early spring, he noticed his original ewe (called Sheep), walking around in circles. This was a sure sign she was going into labour. Not long after, Sheep gave birth to a lamb. Finlay put the new lamb in a shed where it was warm and dry out of the rain. When he returned a short while later he found two more on the ground outside.

They had been born into a muddy puddle and didn’t look like they would survive. Finlay gave them a bath in a bucket of hot water to revive them and then rubbed them down with a towel. Then he helped them to feed from their mother. But Sheep hadn't finished yet. The next minute she started squirming and plop, out came number four. Amazed, Finlay decided to move Sheep and her four new-borns to a better shelter. When he came back later in the day there were five!

Finlay has heard of four lambs being born alive to one ewe, but hasn’t heard of five. Usually, with more than three, some will be born dead. He thinks Sheep may have been a twin or triplet herself which would have helped. He plans to keep the pair that Sheep is feeding and has found homes for the other three. As for the father, the future is not promising.

“We are running out of room. We don’t need any more sheep”, said Finlay. “He might end up in my freezer as sausages.”

FOLLOW-UP ACTIVITIES

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2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.

3. Draw a map to show where the action took place in the news item.

4. Write a letter to Weston Finlay telling him why you would be the perfect person to look after one of his lambs.

5. Sheep can’t feed more than two lambs. Design a machine that would help her feed five. Use diagrams and labels to explain your great ideas.
Children of the War

How would you feel about the prospect of being separated from your parents for five years and having to live with total strangers? This was the experience of many British children in 1939. With the outbreak of war between Britain and Germany, London and other major cities were bombed every night. Many parents decided that this was too unsafe for their children and a massive evacuation took place. Families in the country volunteered to look after children from the city.

In just four days a million children fled to the safety of the countryside. There were queues of small children outside every railway station. Some were excited about this new adventure. Others were very nervous and frightened. Every boy and girl had a small suitcase full of their favourite possessions and a name tag hanging around their neck as if they were a parcel to be delivered. They arrived at their destination tired and hungry. They were herded into the local hall where the host families chose who they wanted. Of course the neatest, healthiest, best looking children were chosen first.

Families hosting children were paid by the government and it is claimed that many offered homes just for the money. In the worst cases children were left near starving while their hosts spent most of the money on themselves. The majority of the boys and girls were taken in by farm workers. Living in a cottage with no electricity or hot water and a toilet in the garden was a shock for the townies. Some were used as unpaid farm labourers and many tried to run away.

However, there were also many positive experiences. The children made new friends, developed an understanding of country life and learnt new skills such as baking bread and looking after animals. Some were very lucky and ended up living with the rich upper class. One East End girl found herself waited on by servants. Most people think that the operation was a success. Of the 60,000 British citizens killed during the Second world war (not counting soldiers), about 5,000 were children. If they hadn’t been moved to the country many more children would have died.

FOLLOW-UP ACTIVITIES

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2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.
3. Make a list of all the things you would have in your bag if you were leaving the city to go and live in the country in 1939.
4. You have been moved out of the city because of the war. Write a letter to your Mum and Dad telling them what it is like with your new family.
5. Design an air raid shelter that would protect you and your family from the bombs. Use diagrams and labels to explain your great ideas.
Global Warming

Every day we hear important people warning us about global warming. What are they talking about? Global warming is a term used by scientists to describe a gradual increase in the average temperature of our planet - the land and the sea. It has taken a long time to convince everyone that this is a reality not just the result of different seasons. If every year the temperature of the earth keeps increasing this is going to have a big impact on life on this planet. The frightening thing is that we are responsible for this.

What have we done to create this problem? Since the industrial revolution over a hundred years ago, we have become increasingly clever at building machines and devices to make life easier. Today our roads are filled with cars and we have lots of clever gadgets in our homes. However, we need more and more energy to make and run this equipment. To create this energy we need to burn increasing amounts of fossil fuels; coal, gas and oil. Burning these fossil fuels is what is doing the damage.

How does that work? Surrounding the earth are lots of different gases. These gases act like a blanket keeping the planet at just the right temperature for plants and animals to survive. One of these gases (CO2) is very good at trapping heat, stopping it from going off into space. However, burning oil, coal and gas gives off more CO2 gas into the air. This means that more heat is trapped and as a result the earth starts heating up. This upsets the balance of nature on the planet.

What will happen if the world continues to heat up? No one knows for sure but the polar ice caps may melt and the sea levels rise. Low-lying areas will be flooded leaving millions of people homeless. The habitats of many fish, plants and animals will change and they will have to move out or die. Places that are already hot will become uninhabitable and turn into desert wastelands. High temperatures can also lead to outbreaks of horrible diseases. We must plan for the future while there is still time.

FOLLOW-UP ACTIVITIES

1. Select five tricky words from the InfoByte.
   For each word look up the meaning, write it down.
   Write your own sentence using the word to show that you really understand what it means.
2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.
3. Draw a diagram showing how global warming works. Include labels.
4. Make a poster warning people about global warming.
5. Design something to help you survive global warming.
   Use diagrams and labels to explain your great ideas.
Clive Staples Lewis

The world of Narnia, with all its strange and wonderful creatures, is a magical land. There are time travels, talking beasts, a wicked witch and the majestic lion, Aslan. All of them came from the imagination of the author known as C S Lewis. He wrote over thirty books, mostly for adults, but the Narnia stories have become the most popular. This is especially true since some of them have been made into movies. What sort of person was the author of these well-known children’s fantasy books?

Lewis was born in Ireland in 1898. Early on in life he showed a love of both animals and stories. When he was four, the family’s pet dog died and Lewis took its name, Jacksie. He was known as Jack by his family and friends for the rest of his life. He and his older brother, Warnie, invented a land called Boxen, which was run by animals. They used to sit in a big old wardrobe and tell each other stories about it. They also loved the Irish fairy tales told to them by their nurse.

As a young man, Lewis went to Oxford University in England where he had great success as a student. Soon, he was offered and happily accepted a job working at the university. For a short time during World War 1, he entered the army and fought in France. Then he returned to university, where he taught, wrote books and became a professor. When he started to write children’s books, some people thought it might make him look foolish. How wrong they were!

Here are a few fun facts about C S Lewis. He smoked a pipe. He enjoyed long walks in the countryside with his friends. He was wounded in the war and had some small pieces of metal in his body for the rest of his life. He was a good friend of the man who wrote ‘The Hobbit’. He was a kind and generous person, a dedicated Christian. He also gave away lots of money to help those in need. He once said, ‘You can never get a cup of tea large enough or a book long enough to suit me’.

**FOLLOW-UP ACTIVITIES**

1. Select five tricky words from the InfoByte.
   For each word look up the meaning, write it down.
   Write your own sentence using the word to show that you really understand what it means.
2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.
3. Draw a timeline of C S Lewis’s life using the information you have.
4. Make a poster advertising C S Lewis’s books.
5. Design some interesting, weird characters for your own imaginary world.
   Use diagrams and labels to explain your great ideas.
Your Own Worm Farm

You should be a worm farmer and run a worm farm at home! Every household has some food waste and either you just chuck it in the rubbish bin - or recycle it. By having a worm farm, you get the worms to recycle it for you! (You could have a pig farm – but worms are easier and do not smell!) You would find that there are many good outcomes for your home, garden and the whole planet.

Did you know that worm farms help reduce greenhouse gases? Food waste which is taken from your bin to a landfill needs a long time to decay. It also smells disgusting and produces methane gas. This harmful gas remains in the air for 10-12 years and leads to global warming. If more people had worm farms for their food waste at home, there would be less methane gas. And less methane gas would reduce global warming. Worms are small but they have an important role in keeping the earth healthy.

It has been said that ‘worm poo is black gold for your garden’. It is certainly a great fertilizer and is 100% natural. Worms nibble their way through kitchen scraps such as rotten apples, potato peels and old salads. They even like hair, dust and used coffee grounds! From this waste they produce their castings, or poo, which is fantastic for your soil. It does not smell bad, contains no chemicals and costs you nothing. It enriches the ground, helping to grow beautiful plants, flowers and vegetables.

Keeping a worm farm does not need much space, time or effort. An area of about 28 square centimetres is enough for a bin. This should be placed in a sheltered section of the garden out of direct sunlight. If you live in an apartment building without a garden, you can use a dark cupboard. Once you have set up the farm, it will not need a lot of attention. You just add the scraps and also check that it does not become too dry. In due course, you will be able to collect the rich compost for your garden. Why wouldn’t you want to be a worm farmer?

FOLLOW-UP ACTIVITIES

1. Select five tricky words from the InfoByte.
   For each word look up the meaning, write it down.
   Write your own sentence using the word to show that you really understand what it means.
2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.
3. Draw a diagram showing how to make a worm farm. Include labels.
4. Make a poster encouraging people to run a worm farm.
5. Design your own super efficient worm farm.
   Use diagrams and labels to explain your great ideas.
The Island of Pukapuka

Have you ever dreamed of escaping to a beautiful Pacific island where the sun shines and the coconut palms sway? Have you longed to stroll along sandy beaches and swim in warm seas? Well, that is everyday life on Pukapuka (Pookapooka), a remote atoll in the Cook Islands. Pukapuka is made up of three small islands which are connected by huge sandy reefs. It is the shape of a rough triangle with each island as one of the corners. In the middle is a warm safe lagoon where you can swim and fish.

The people live on just one of the islands, the largest of the three. Its name, Wale, means ‘home’ and it has three villages. The other two islands are used as gardens where foods such as taro, pandanas and bananas are grown. These days, some food is brought in but most of the time, the people find their own. They fish, work in their gardens and gather coconuts. The children also enjoy catching huge coconut crabs for a tasty meal!

The people of Pukapuka have their own special way of life, language and customs. Women weave beautiful pandanus mats and work in the taro gardens while men are good at building canoes and fishing. Children gather firewood and husk coconuts. People of all ages love to sing and dance. Teams from Pukapuka travel to Rarotonga to perform in the Cook Islands cultural contests. The crowds there love their style because they sing so well, are cheeky and great fun to watch.

Life on this peaceful island has had its problems, though. In the 1600s, huge waves swept away most of the people leaving just 17 men, 2 women and some children. Through these few people, numbers slowly grew again. But in 1863, slave traders captured 145 men and women and took them to South America. They were sold as slaves and only 2 of them ever returned home. In 2005, Cyclone Percy destroyed much of the island and many people left. They went to live in places like Rarotonga, Australia and New Zealand. There are only about 500 people living on Pukapuka today.

FOLLOW-UP ACTIVITIES

1. Select five tricky words from the InfoByte. For each word look up the meaning, write it down, then write your own sentence using the word to show that you really understand what it means.
2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.
3. Draw a map of the atoll Pukapuka using the information you have been given.
4. Make an advertising poster encouraging tourists to come to Pukapuka.
5. Design some protection for the islands from tsunamis and cyclones Use diagrams and labels to explain your great ideas.
The Planet Venus

Venus, named after the Roman goddess of love, shines brightly in the night sky. It is the second planet from the sun and is Earth’s closest neighbour. While Venus and Earth are quite alike in size and mass, they have many differences. Venus is a bit smaller than Earth, has no moons and is covered by thick clouds. It also turns much more slowly than Earth and in the other direction.

The clouds surrounding Venus are really thick. It is the sun’s rays reflecting off these clouds that makes the planet shine so brightly. The clouds are made up of carbon dioxide with a small amount of nitrogen. Humans could not live breathing this kind of air. The clouds around Venus have also created a severe ‘global warming’ problem because they trap hot air close to the planet. This very hot air is caused by the sun’s heat and the heat of the many volcanoes on Venus.

The surface of the planet is rocky, dry and very hot. The normal temperature is 462°C which is hot enough to melt lead! Venus is even hotter than the planet Mercury which is closer to the sun. Spacecraft which have landed on Venus have not been able to last long in the intense heat. Fortunately, however, some have been able to send data before being destroyed. The photographs sent show the surface to be a volcanic desert. It is mostly low hills and plains but there are also small mountains and volcanoes.

Beginning in the 1960s, spacecraft have been sent to Venus from a number of countries. Russia, USA, Japan and some European countries have shared scientific facts about Venus. Most spacecraft have not landed there because of the cruel heat and huge pressure. Most recorded their data from afar but a number of spacecraft sent by Russia did land. They sent some data back to Earth but were destroyed after about two hours! In 1993, NASA (from USA) made a map of the surface of Venus using radar. Now, these countries continue to work together and share what they know about Venus.

FOLLOW-UP ACTIVITIES

1. Select five tricky words from the InfoByte. For each word look up the meaning, write it down, then write your own sentence using the word to show that you really understand what it means.
2. For each paragraph decide on a heading which summarises the main idea in the paragraph. For each piece of information in the paragraph write down one word that will trigger the information for you.
3. Draw a diagram explaining why the temperature on Venus is so hot. Include labels and captions.
4. Make a poster about the special features of the planet Venus.
5. Design a building that would survive the heat on Venus and allow humans to live on the planet.