God is Wise Teacher's Topic Guide Year 5

Topic: Community Insects **Duration: 4 weeks**

Spiritual awareness
This unit is based on Proverbs 6:6-11. This proverb serves as a wakeup call against the dangers of laziness. Culturally, laziness is becoming more and more acceptable. But the Bible teaches us in this passage that laziness ultimately leads to destruction. We can look at the ant as an example of how we are to live. Ants work hard, even without supervision. They plan ahead for times when they will have less food. It would be wise for us to be the same way. We should not waste our time but work diligently at whatever task we are given.

Values: Our response to 'God is Wise'
Students will:

- Recognize that there is wisdom in applying ourselves to work; to work hard at whatever task we are given by God.
- Ask God what is the right thing to do, and do it.
- Listen to people who are wiser than me.
- Listen to my parents and teachers.
- Obey God's word.
- Do what Jesus would do.
- Ask Jesus to be the guide throughout my life.
- Show wisdom in caring for God's Creation.

Bible references:
Proverbs 6 The wisdom of the ant
Proverbs 30:24-25 There are four animals in the world that are small, but very, very clever: ants: they are weak, but they store up their food in the summer. (The other 3 animals are rock badgers, locusts and lizards, verses 26-28)
Matthew 25 the parable of the girls and their lamps – wisdom in being prepared for the future
Ecclesiastic 9:10 Whatever your hand finds to do, do it with all your might.
Phil 2:14 Do everything without grumbling or complaining.

Outcomes
Students will observe:

- the wisdom of the ant community in: preparing for the future, working hard and not being lazy.
- the instinct used by community insects, and relate this to God's gift of wisdom i.e. knowing the right thing to do.
- the wisdom displayed in the insect communities, and the ability to work together in an organized fashion.
- the serving qualities in the insect communities, with each member working to help other members.
- the intricate and elaborate systems of ant and bee communities, designed by the Creator.

Discussion

Begin by asking the class what they think work means. Explain that work is when we are doing the things that we have to do in life. For young children, work might be cleaning up their toys or going to school or preschool and doing their best. Explain that God wants us to work hard at whatever it is we need to do. He does not want us to be lazy.

Read Proverbs 6:6-11. Think about ants. Anytime you go outside and see ants they are working hard. They scavenge for food and work together to complete tasks that are hard.

How can you work hard like an ant when you are asked by our parents or teachers to do something?
The best way is to do the job without complaining. We can work with brothers or sisters at home, or with class members at school.

Ants work hard and plan ahead. As Christians, we should work hard and do our best to please God. On the other hand, when we are lazy we can get ourselves into a lot of trouble. Putting work off until later means that the work piles up and it is harder to do it later.

Activities

- Describe the habitat and community behaviour of ants, bees and wasps.
- Make regular observations of ants in the school ground.
- Set up sources of sugar or honey to attract the insects.
- Research community roles, mating, and egg laying.
- Record information.
- Draw and label community insects, including queen and workers.
- Observe the wisdom of the ant community in preparing for the future and discuss how this can be applied to our own lives.
- Observe the instinct used by community insects and relate this to God's gift of wisdom i.e. knowing the right thing to do.
- Observe the wisdom of insect communities in being able to work together in an organized fashion.
- Observe the serving nature of community insects, each member serving another.
- Mathematics**:** Work with hexagons and triangles; Work on the 6 times table, counting the legs of ants or bees.

Assessment

1. Present a report on valuable work that they have done over a week.
2. Present information on one species of community insects using drawings and text.
3. Submit a diary of your observations of community insects.
4. What have I learned from the study of community insects…
    a. about God and the Bible?
    b. about doing what God wants me to do?

God is Wise: Values education Year 5

Wisdom

Wisdom is …

Knowing the right thing to do and doing it

Being wise is different than being smart. A smart person knows a lot of facts, but a wise person is able to apply those facts to the situation at hand. If you want to make wise decisions, you must realize that every decision is important. Just as it takes thousands of small bricks to construct a large building, your character is made up of thousands of small decisions.

Every decision we make has a consequence. It can be a good consequence or a bad consequence. Sometimes consequences affect just one person, and sometimes they affect many.

Whether the outcome is good or bad, a wise person learns from past decisions and makes better ones in the future. Even the worst mistakes can become the best lessons for those who are willing to learn!

How to become a wise person:

- listen to my parents and teachers.
- learn from mistakes.
- choose my friends carefully.
- consider the consequences.
- ask, "What is the right thing to do?"

Questions:

Who are some wise people you know? What can you learn from them?
Who are some friends that encourage you in the right direction?
What do you think the saying means, "You reap what you sow”?
What do you think happens if you don't learn from your mistakes?

Discussion: What is work?

- Work is when we are doing the things that we have to do in life. For young children, work might be cleaning up their toys. For older children it might be helping at home or doing school work. God wants us to work hard at whatever it is we need to do. He does not want us to be lazy.

- Read Proverbs 6:6-11. Think about ants. Anytime you go outside and see ants they are working hard. They scavenge for food and work together to complete tasks that are hard.

- How can you work hard like an ant when you are asked by our parents or teachers to do something?
- The best way is to do the job without complaining. We can work with brothers or sisters at home, or with class members at school.

- Ants work hard and plan ahead. As Christians, we should work hard and do our best to please God. On the other hand, when we are lazy we can get ourselves into a lot of trouble. Putting work off until later means that the work piles up and it is harder to do it later.

What does the Bible say about wisdom?

Prov 2:6 For the Lord gives wisdom; from his mouth come knowledge and understanding.
James 1:5 If any of you lacks wisdom, you should ask God, who gives generously to all without finding fault, and it will be given to you.
Matthew 7:24 Therefore everyone who hears these words of mine and puts them into practice is like a wise man who built his house on the rock.
Galatians 6:7 You reap what you sow.

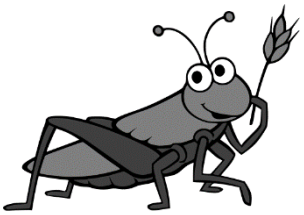
Art Year 5

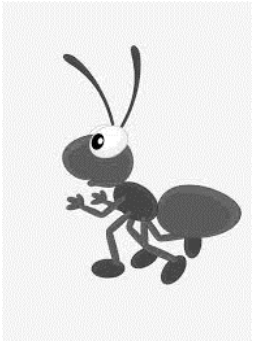
God is Wise: Community insects

Biblical wall display: Students can illustrate the story of the ant and the grasshopper, with caption, “Consider the ways of the ant and be wise! It stores provisions in summer and gathers its food at harvest.” Proverbs 6:6

Drawing

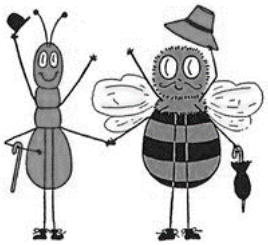
Make a cartoon strip to tell the story of the ant and the grasshopper. They can invent cartoon characters and use speech bubbles to tell the story.





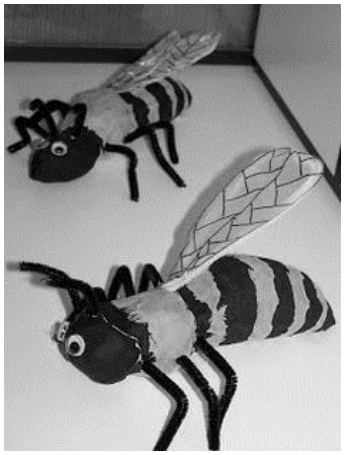
Make up stories using ant / bee characters and show this as a cartoon strip.

Examples:

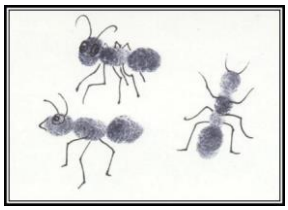


Construction

Make a giant beehive from cut-out hexagon shapes and add modelled paper mâché bees.



Make ant thumbprints: make a stamp pad from a damp kitchen sponge. Drop paint on the sponge and work it in. Use thumb prints make the ant’s body. Use a marker or black pen to draw legs and feelers on the ant. Put the Bible verse, Proverbs 6:6, on the paper as well.



Practical Science 1
Community insects

Collecting ants
To collect your ants, remove the top of the anthill or mound with a trowel or spade. Put them in a container with a lid.

Dig up some soil from near the colony and put it in a bucket. Note carefully where you collected them, since you will have to return here to release your ants.

Before putting them in your ant farm, place the ants in the refrigerator for 10 minutes to calm them.

Make an ant farm
https://www.wikihow.com/Build-an-Ant-Farm#/Image:Build-an-Ant-Farm-Step-11-Version-4.jpg

1. Get 2 jars with lids – one small and one larger. Place a lid on the smaller jar and set it inside the larger one. To keep it centered in the middle of the larger jar, you can put a dab of glue or tape on the bottom before you set it inside. Make sure you put the lid on securely, since you don't want ants accidentally falling in. (Diagram 1)

2. Use a spoon to fill the remaining space in the larger jar with the dirt mixture. The dirt should not be tightly packed; make sure it's nice and loose, so the ants will be able to move around. Leave about 5 cm (an inch) of empty space at the top of the jar. This empty space will keep the ants from climbing up the glass and out of the jar when you need to open the lid. (Diagram 2)

3. Place the ants in the larger jar and screw on the lid of the smaller jar. Carefully drop the ants in the jar, making sure they all make it into the fine dirt you provided. Cover the top of the larger jar with paper and use a sharp knife to puncture it with tiny holes, to allow oxygen to reach the ants. (Diagram 2) Make sure not to punch the holes too large, or the ants will escape and build a nest elsewhere.

Question
Why should you leave space open at the top of the jar instead of packing the dirt all the way to the top?
Answers:
- So the ants receive plenty of oxygen.
- So the dirt isn’t too tightly packed.
- So the ants don’t climb out through the holes in the lid of the jar.
- So the ants don’t escape when you open the jar.

Diagram 1

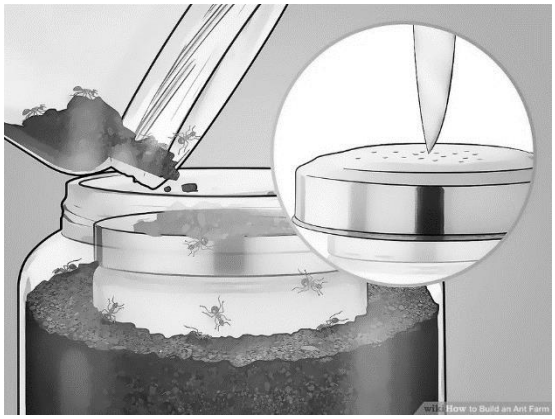


Diagram 2

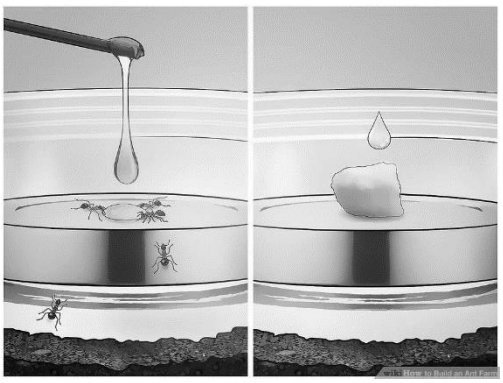
Caring for your ants

1. Offer them food and moisture. In order to keep your ants happy, you can feed them every few days with a few drops of honey, jam, or pieces of fruit - ants love sugar! (See diagram below.) Don't overdo it, or you'll have mold in your ant farm. Ants get most of the moisture they need from food, but if it looks like the dirt and sand mixture is getting dry, wet a cotton ball with water and place it at the top of the jar for a few days. Don't give the ants meat or other cooked food. This will attract other types of pests to your ant farm. Don't pour water into the jar. It'll get too wet, and the ants could drown.

2. Cover the jar when you aren't watching the ants. Ants do their tunneling at night, in the dark. To replicate the environment they're used to, cover the jar with black cloth or construction paper when you're not watching the ants. If you forget to do this, the ants will be stressed out and much less active. They'll also tend to stay away from the glass and spend their time as close as possible to the center of the jar.

3. Don't shake the jar. Ants are fragile creatures, and shaking the jar or otherwise handling it roughly can cause them to die when their tunnels collapse on them. Handle the ant farm carefully.

4. Store the farm in a warm room. Place it in a room that tends to stay at a good steady temperature. Don't place it in direct sunlight, or the glass jar might heat up too much and overheat the ants.



Practical Science 2

Topic: Community Insects

Attracting bees

Have you ever wondered how bees and butterflies know where to find good feeding spots? These insects don't have sharp vision, but they see polarized light (which tells them direction based on where the sun is) and patterns of ultraviolet light on bright-colored flowers with lots of nectar. Bees also recognize man-made patterns; sometimes beekeepers put a symbol on a new hive so their bees can remember which is the right one.

Do this experiment to test how well bees recognize patterns - and see if you can fool them! You'll need about a week to do this project, with time to check your homemade bee feeder every day.

What You Need:

- 5 pieces of card, about 12 cm x 9 cm
- 5 small dishes
- 5 plastic zip lock bags (Food storage bags)
- 1/4 cup sugar
- A black marker
- 3/4 cup water

What You Do:

1. On each piece of cards, draw a simple shape with the marker. (You might draw a star, circle, cross, triangle, and square.) Make the shape big enough to cover most of the card and fill in the shape so that it's solid black. When you're done, stick each card inside a zip lock. This will protect it from being ruined outside.

2. Set the bags outside in a flat, sunny spot where they won't be disturbed. Make sure the shapes are facing up. Each one should be placed about half a metre (2 feet) away from the others. If you live in a windy area, use rocks or a stake to hold down the bags!

3. Mix up some sugar water, the "nectar" that will attract bees and other insects. (Real nectar, from flowers, is a similar sugary liquid.) Heat the water until it's almost boiling. Then stir in the sugar until it's dissolved. Pour the sugar water into one of the small dishes; fill the other four with plain water. Set a dish outside by each of the zip lock bags. Make sure you remember which dish has the sugar water!

4. During the next few days, keep track of what kinds of insects visit the dishes. How many days does it take before bees find the one with sugar water? A few days after you've seen bees at the sugar water dish, switch cards so that the shape that was next to the sugar water is now by a dish of plain water. What happens in the next two days? Do the bees come right to the sugar water, or do they land on the dish with the card that used to be next to the sugar water? Now leave the cards where

they are, but switch the sugar water dish with another dish of plain water. How do the bees respond?

Taking it further:
While you watch the bees' reaction, keep an eye on other insects, too. Do butterflies and ants respond the same way? Did one kind of insect seem to have an easier time re-locating the sugar water? Try the experiment using different-colored circles, instead of different shapes. Did any of the results change? Do insects seem to recognize colors as well as shapes?

https://www.homesciencetools.com/a/bee-memory-experiment

Thinking Skills Wise Yr 5

Community insects 1 **List the features of both of these, then combine them to design a "superbug".** **an ant** **and** **a bee**	**Community insects 2** Work out 5 ways of getting ants off your leg without using your hands.
Community insects 3 There are ants in our kitchen! Work out a way to keep ants out of your food without killing the ants and without using poison.	**Community insects 4** We need bees to make our fruit, vegetables and flowers grow. Work out 5 ways of attracting more bees into your vegetable garden.
Community insects 5 You are going to set up a house for an ant family, so that you can study them. Design a comfortable home for an ant family.	**Community insects 6** There are too many wasps in the school playground. Design a wasp trap.