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# Standard 1 Science & Agri-Science

SAMPLE



**Name:** \_\_\_\_\_

**Teacher:** \_\_\_\_\_

**School:** \_\_\_\_\_

### **Bonus Offer Online**

This book gives you access to additional Science & Agri-Science videos, quizzes, games and prizes on pennacool.com.

Log onto pennacool.com and click on "Workbooks" to learn more!

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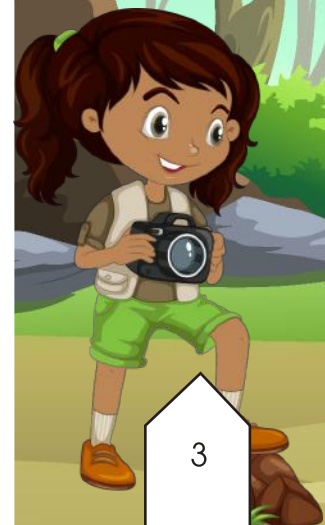
# SCAVENGER



Search through the workbook to find these hidden animals!

Each animal has  used  
to crack the code.

Once you find a letter, come back to this page and write  
it next to the animal that was holding it. This will help you  
crack the code.





# HUNT!

## Key



Code: \_\_\_\_\_

Log onto [pennacool.com](http://pennacool.com) and click on Science & Conservation.

Click on "Bonus Points" and enter the word above to get extra points to win prizes.

Login to [pennacool.com](http://pennacool.com) for Science and Conservation videos, quizzes, games & prizes.

# 1. Vertebrates & Invertebrates

## Vertebrates and Invertebrates

A skeleton is a group of bones that makes up the frame of an animal.



Animals which have bones are called **vertebrates**.



Those without are called **invertebrates**.

Draw a vertebrate and an invertebrate in the correct column.


Vertebrate

Invertebrate

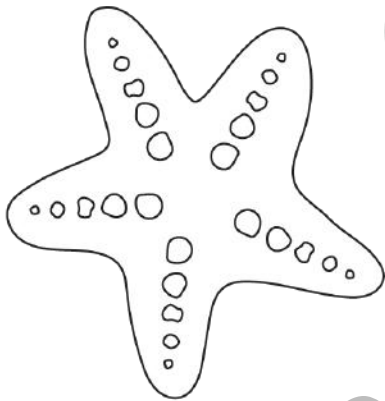
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SAMPLE



# Colour Codes

The vertebrates are to be coloured **brown** and  
the invertebrates are to be coloured   
Can you get them all?

1. Starfish



2. Octopus



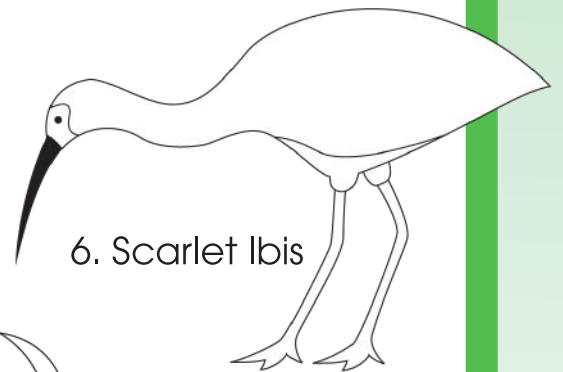
3. Dog



4. Iguana



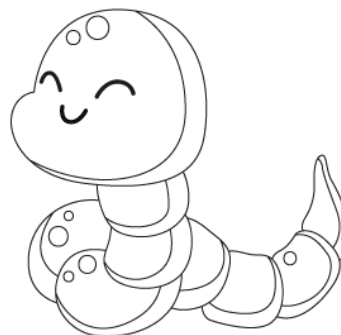
6. Scarlet Ibis



5. Boy





7. Worm





Help save the 

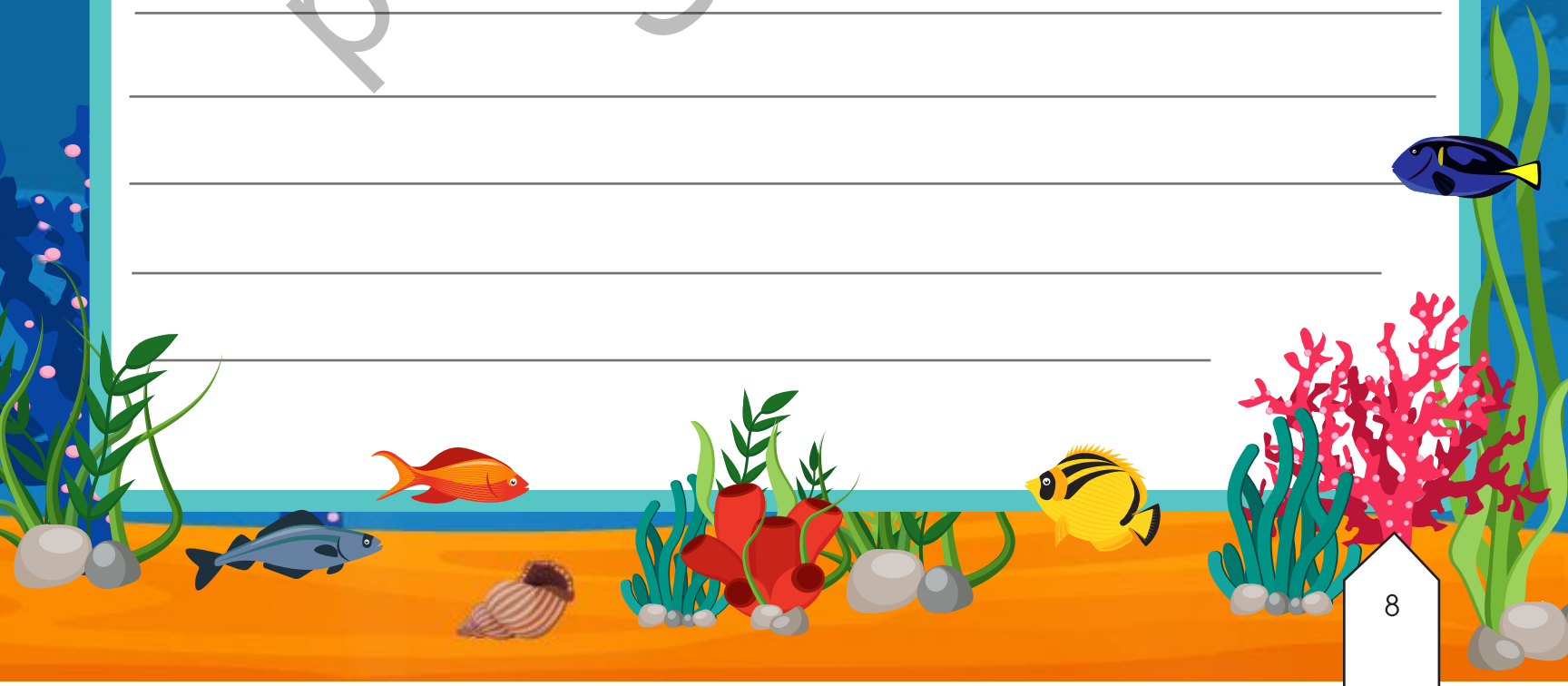
Did you know that  are marine invertebrates?  
Many of our beautiful  in Tobago are at risk  
due to overfishing, pollution and climate change.  
We need to save them!

Discuss this matter with your parents, teachers and classmates.  
Write a pledge on how you plan to save  
and protect our 



# My Pledge!

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SAMPLE



There are five (5) different types of vertebrates.

Fill out the classification chart below by drawing or sticking pictures of the different vertebrates in the correct boxes.

Mammal	[Redacted]	[Redacted]
[Redacted]		



The caiman ate the vowels from the words below.

Can you fill in the blanks to spell the words correctly?



5. \_\_\_ mph \_\_\_ b \_\_\_ ns

6. r \_\_\_ pt \_\_\_ l \_\_\_ s

7. f \_\_\_ sh

a  
i  
e  
o  
u

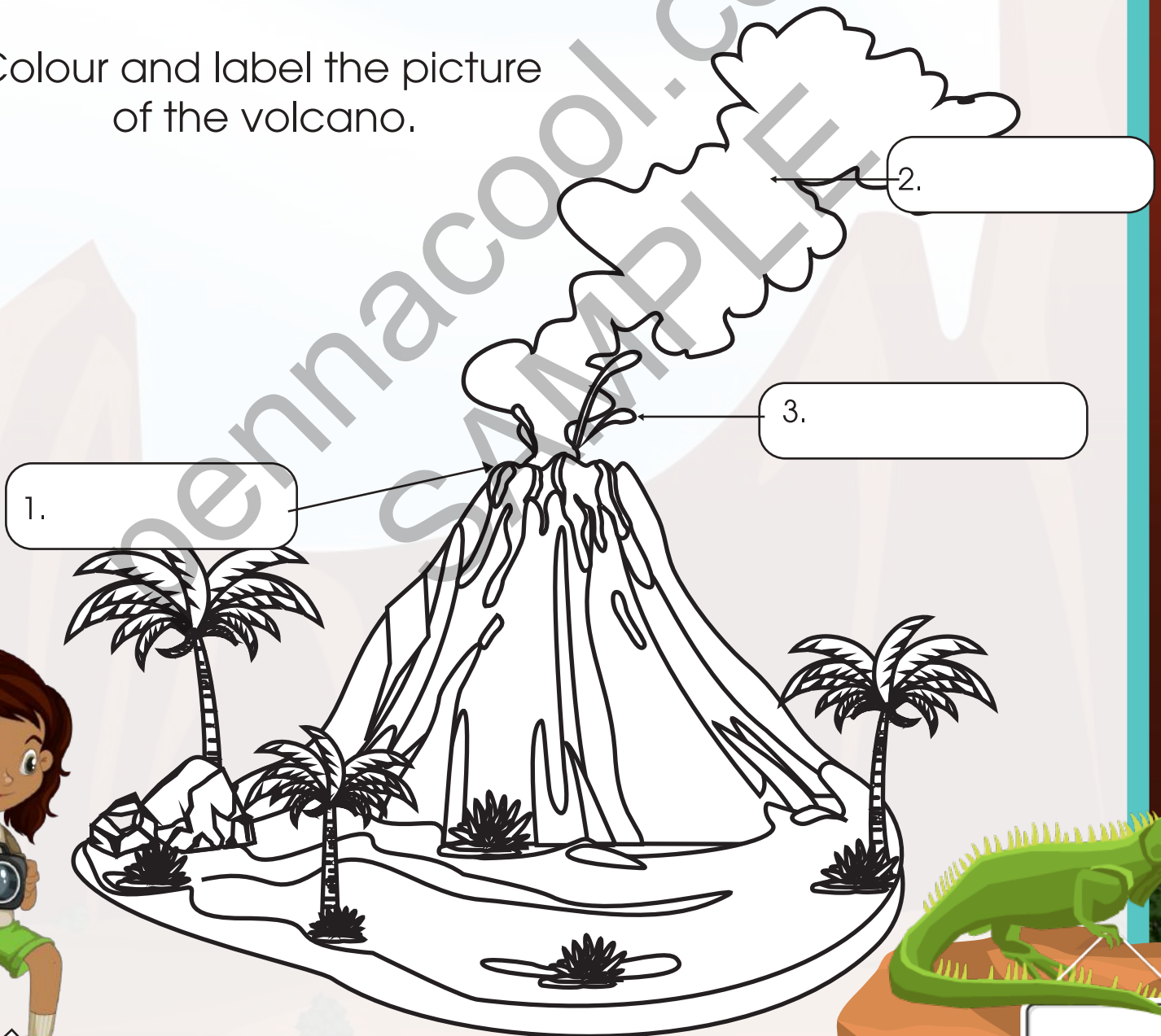


## 2. Local Scientists

A volcanologist studies volcanoes.

**Cracks** breaks in the Earth's crust that hot lava, ash and gases flow out of.

Colour and label the picture of the volcano.



E

# Mathematicians are very good with numbers.

A sudoku is a number puzzle that contains rows and columns.

To solve it, choose a row that has some numbers filled in.

Each row can only contain a number once.




Each column can only contain a number once.

Each square can only contain a number once.

Here is an example.

1	3	4	2
4	2	1	3
2	4	3	1
3	1	2	4

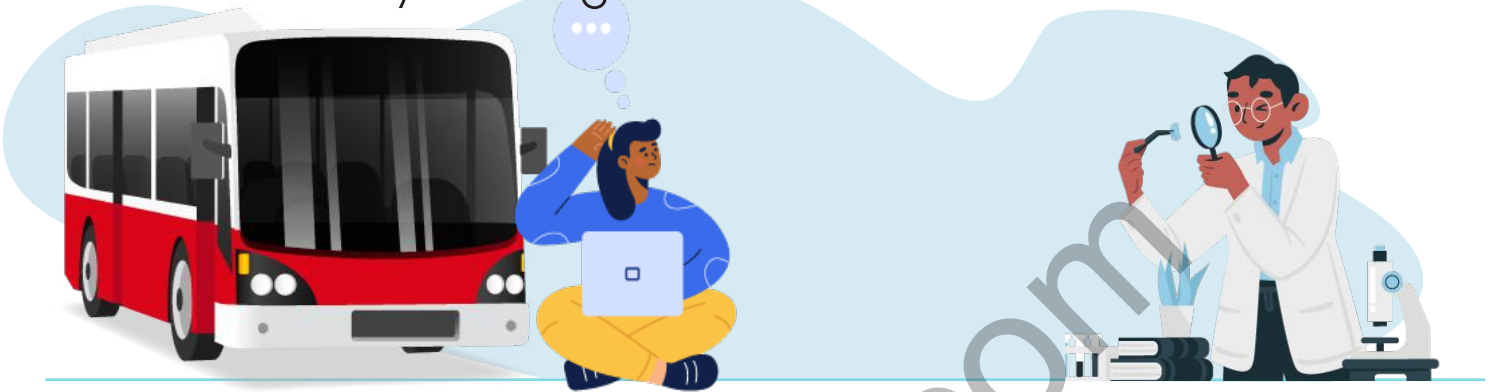
Can you solve the sudoku puzzle below? It uses numbers 1-4.

	1		3
			
		3	
1	3		



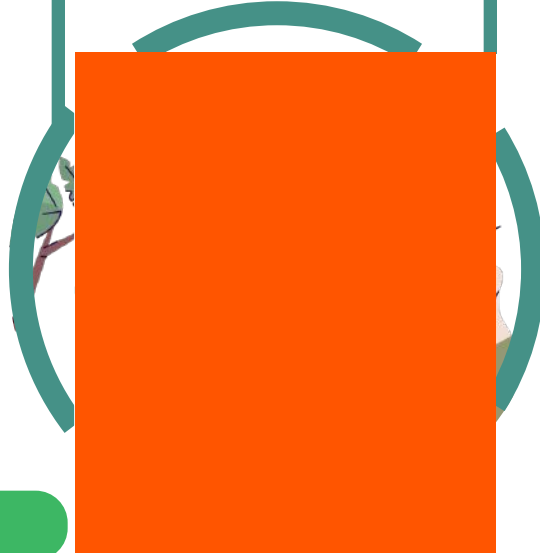
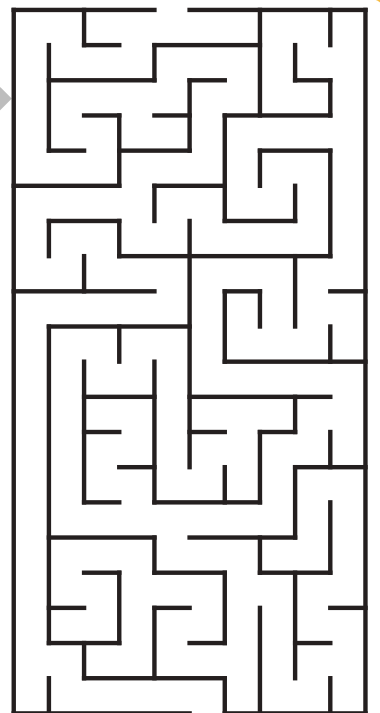
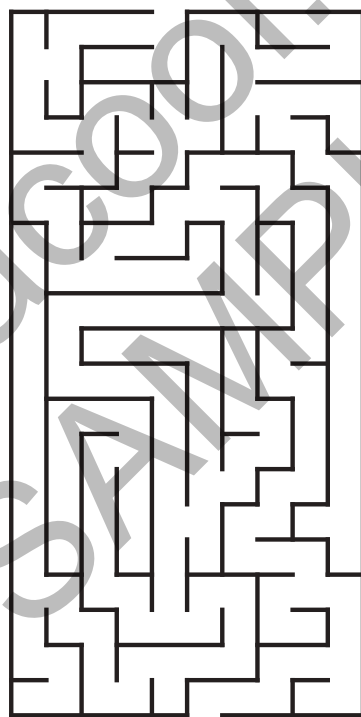
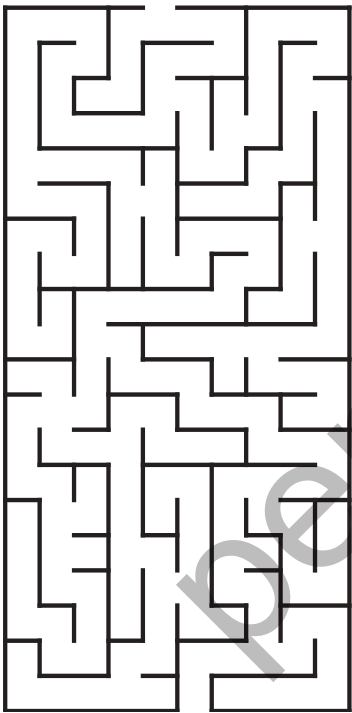
# Help the Scientists Get to Work

These scientists just got off the bus at City Gate. Choose the correct paths for them to get to work by drawing lines to their work stations.



Engineer

Zoologist



## Match the Definitions

Climatologist

Meteorologist

I tell the weather daily. \_\_\_\_\_

I tell the weather over long periods of time. \_\_\_\_\_

## Become a Meteorologist for a Week

Use the symbols from the key to fill out the chart below.

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Symbol							

This week was mostly \_\_\_\_\_.

Key:



Sunny



Thunderstorms



Light  
Rain

Symbols can be used more than once.

# Get to Know our Local Scientists

Draw a line to match the picture of each local scientist to their job title.



Patrick Manning



Philip Phillips



Rudranath Capildeo



Sanjeev Seereeram



Lesley-Ann Dupigny-Giroux



Joan Latchman

**Climatologist**

**Engineer**

**Physicist**

**Seismologist**

**Geologist**

**Mathematician**

Take a look at our Local Scientists video on the Science platform on [pennacool.com](http://pennacool.com) to help you out!





# Who am I?

It's a bird,  
It's a plane,  
I am someone in the weather game,  
I am a \_\_\_\_\_.

I dig for fun,  
I dig in the sun,  
I dig in the ground,  
I dig all around,  
I am an \_\_\_\_\_.

I can design a bridge,  
Or even a hinge,  
My robots are cool,  
When I use my tools,  
I am an \_\_\_\_\_.

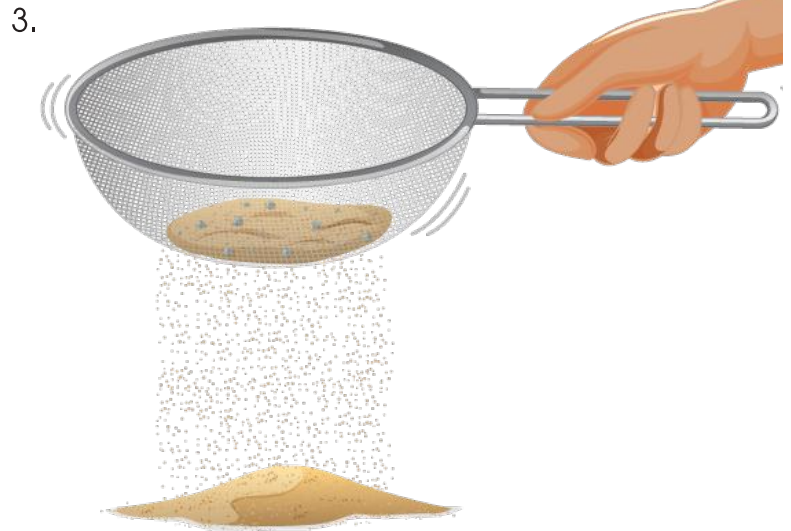
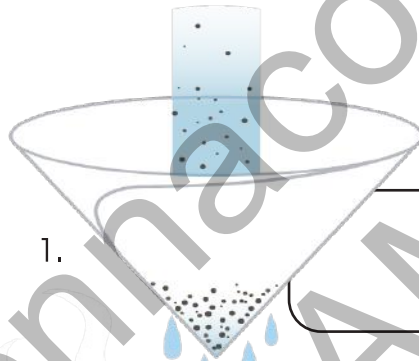


# 3. Methods of Separation

A mixture is a substance made by mixing two other substances together.

There are many ways to separate mixtures.

Match the words with the correct picture.



Sammy is helping her mom in the kitchen when she accidentally knocks over a bag of rice into the flour. Sammy's mom then asks her to help by sieving the flour from the rice.

Can you spot the      differences between the two pictures?



# Name the Apparatus and the Method

	1. 	2. 	3. 	4. 
				
				

Choose the answers from the box below.

**Magnet**

**Evaporation**

**Finger**

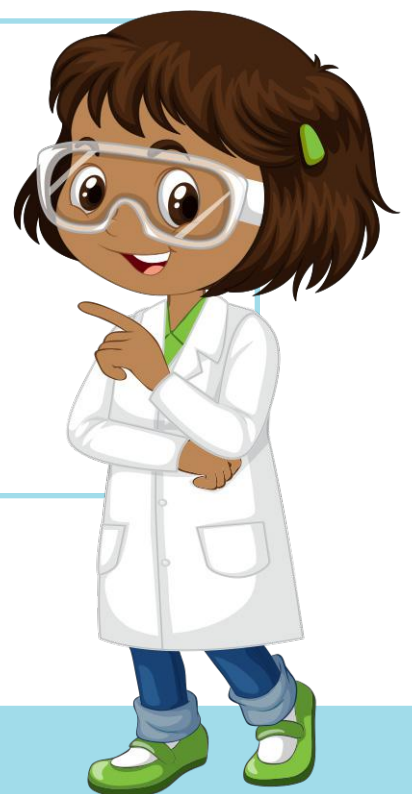
**Sieve**

**Sifting**

**Container and heat**

**Hand picking**

**Magnetism**





# Getting Ready for an Experiment

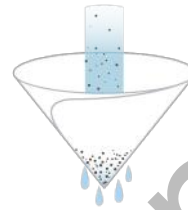
1. Kyla and her friends are getting ready for a beach cleanup. She needs to place the trash scattered all over in trash bags. Circle what she needs to get it done.



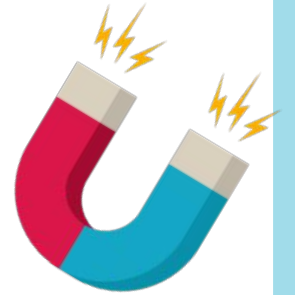
Hand Picking



Evaporation



Sieve



Magnet

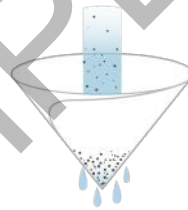
2. Papa Boyie        his coffee every morning. He needs to separate the grinds before he drinks. What would he use to get the job done?



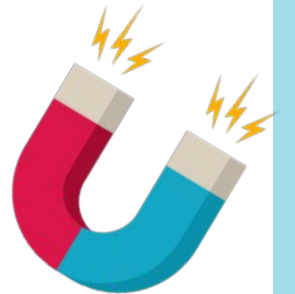
Hand Picking



Evaporation



Sieve



Magnet

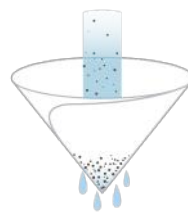
3. Susie wants to separate salt from water. She asks mummy for help. What would mummy do to help her?



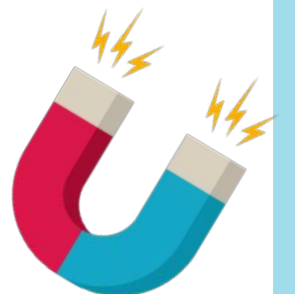
Hand Picking



Evaporation



Sieve



Magnet

# 4. Objects, Materials and Structures

## Treasure Hunt

Can you find items in your class that are made of the materials below?

Draw pictures or write the words in the correct columns.



Metal	Wood	Paper
Cloth	Glass	Plastic




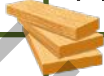






# Properties of Materials

## Vocabulary

Opaque	Flexible	Rough	Absorbent
Smooth	Hard	Soft	Transparent

What are the properties of the following objects? Use the vocabulary words to help you. Each item may have more than one property.

 Plastic Bottle	 Rubber Band	 Brick wall	 Planks of Wood

 Sponge	 Glass Cup	 Metal Rods	 Cotton Bud

## Make a collage

Think about the materials you need to build a structure such as a house, a bridge or a vehicle. Can you make a collage on this page using different materials you can find? Talk with your friends about your choice of materials used in your collage.

Was there a material that you wanted to use but did not get?

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SAMPLE







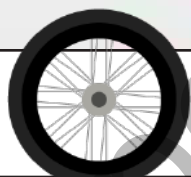


A	B	S	O	R	B	E	N	T	S	T	U	R	S
B	U	L	R	A	N	O	S	O	F	T	S	D	A
A	S	T	T	N	A	Q	R	P	U	E	E	D	L
O	S	N	A	E	M	A	S	L	O	R	O	F	F
O	S	E	B	N	N	L	O	R	O	U	G	H	L
I	T	R	F	U	S	O	R	O	A	N	E	U	D
N	N	A	F	E	C	N	E	H	I	L	A	O	R
O	I	P	N	A	O	E	L	H	T	O	M	S	
I	R	S	N	U	P	H	B	F	S	O	I	I	H
T	T	N	P	S	A	O	I	E	A	H	Q	T	D
S	E	A	E	H	Q	T	X	F	N	O	A	U	O
P	D	R	S	R	U	R	E	E	A	R	E	R	R
N	T	T	N	N	E	T	L	H	R	N	O	H	D
G	R	L	X	O	H	E	F	N	R	I	G	I	D



V

# 5. Simple Machines

Simple machines are all around us. Can you find pictures of various items that use simple machines? Look in old newspapers, books and magazines, or print them from the Internet and stick them in the spaces below.

 <p>Lever</p>	 <p>Pulley</p>
	
	

# Simple Experiments

## Wheel and Axle

### Materials

- Two paper plates (same size)
- A pencil

1. Bore a hole in the center of the two plates.
2. Stick the pencil through the plates. Roll the wheel and axle.
3. Challenge a friend to see whose own can roll further.



## Super Challenge!

Do you think that you can build a car that works by using the  Think about the materials you need here.

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# 6. Uses of Forces

## Twists and Turns

A **twist** moves or bends an item in opposite directions so that parts of the same thing are turned away from each other.

A **turn** moves an item around a center point.



1. \_\_\_\_\_



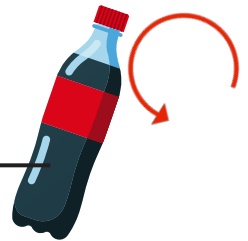
2. \_\_\_\_\_



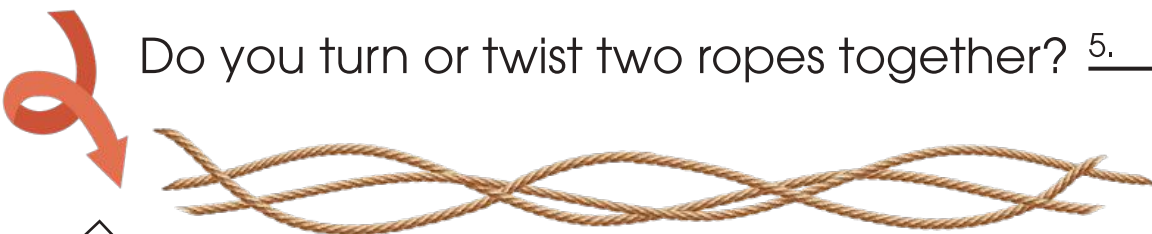
Do you turn or twist a wheel? 3. \_\_\_\_\_



4. \_\_\_\_\_



Do you turn or twist two ropes together? 5. \_\_\_\_\_

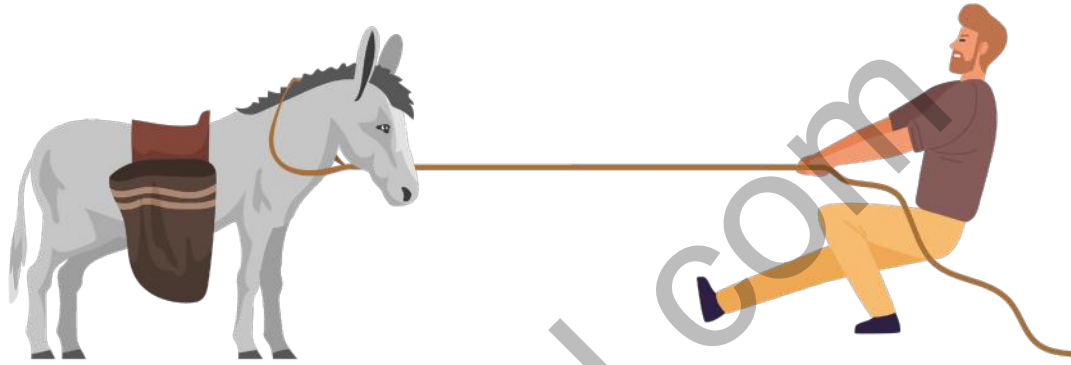




# Push and Pull

A **push** moves an item forward by applying pressure.  
A **pull** uses force to bring something closer to oneself.

Label the following as 'push' or 'pull'



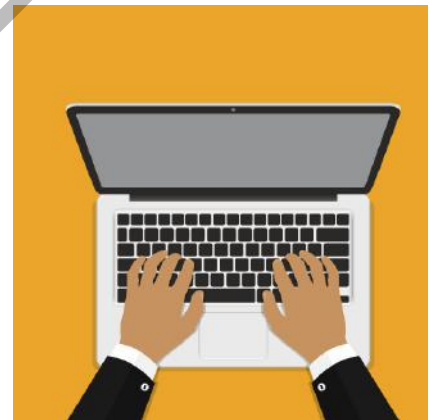
1.



2.



3.



4.



5.



6.

# Forces Tic Tac Toe

With a friend, complete the tic tac toe below. You can use the letters T, for Twist/Turn, and P, for Push/Pull, or you can use your own symbols. When it is your turn, draw your force in a box.

You must get three of the same forces in a row to win!




# May the force be with you!

Draw an action you can do for the named force.

■	■

Push	Pull

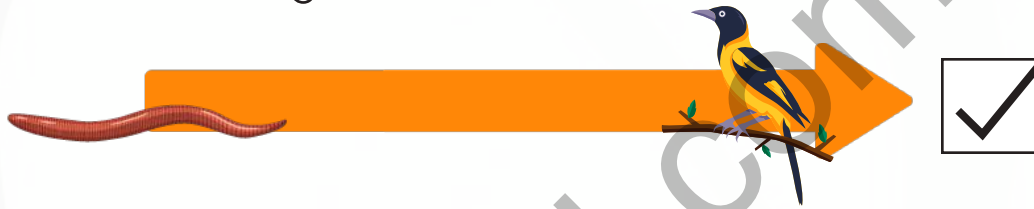


# 7. Ecosystem Relationships

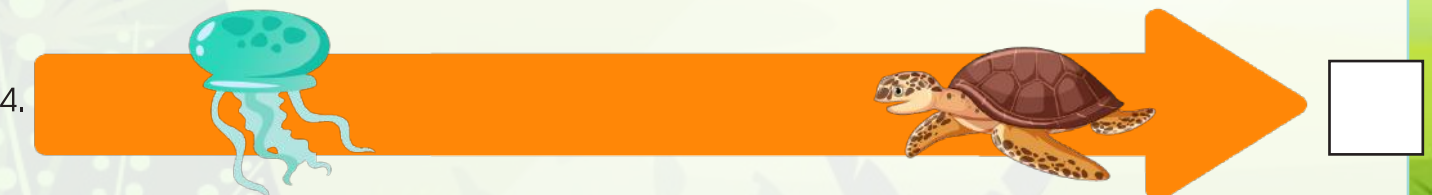
Living things are linked through                     . This link is called a                     . All food chains start with the **producer**.

We use an arrow in our diagrams to show the flow of energy from the producer to its consumer. The direction of the arrow points from the thing that is eaten to what eats it.

E.g.

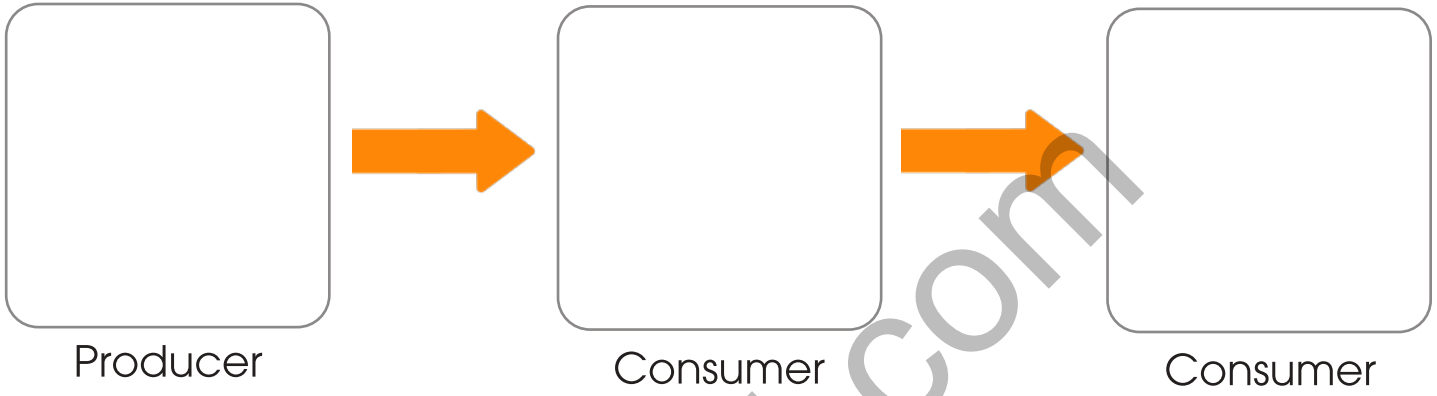


Tick the boxes that show the correct direction of energy flow.





Create a food chain with one producer and  
[redacted]  
Draw the organisms or food sources in the boxes.



### Super Challenge!



Draw the organisms or food sources in the boxes.



C



These are                      Trinidad and Tobago.

Can you say whether they are herbivores, omnivores or carnivores?

Write the answers in the spaces given.



1. Manatee



3. Capuchin monkey



4. Silky Anteater



6. Crab Eating Raccoon

# Feeding Frenzy!



The animals in the Emperor Valley Zoo are getting hungry!

Can you help the zookeepers feed the animals?

Remember that an animal can get sick if it eats the wrong type of food!

Draw a line from each food to the animal that eats it.



Food - Fish



Food - Rat



Food - Crab



Food - Nuts



Animal - Porcupine



Animal - Otter




Animal - Owl



Animal - Scarlet Ibis





Forests are beautiful places to visit on hikes or for relaxation. They provide homes for our wildlife, help to keep our air clean and purify and store our drinking water. We need to keep our forests healthy and beautiful.

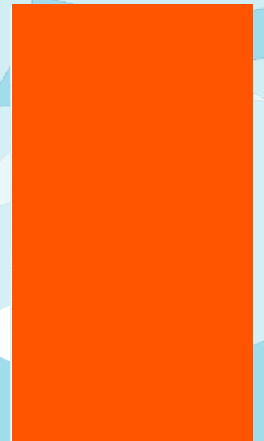
**Colour the forest in beautiful colours!**



# Air Pollution

Air pollution is caused by smoke and harmful gases that are released into the atmosphere.

Look at the pictures below.  
Place an X over the items that pollute our air.



Car with exhaust



Garbage



Polluted waterway with garbage



Spaceship launch



Factory



# Land Pollution

**Land pollution** is anything that damages or contaminates the **land**. As consumers, we often purchase lots of items that come in plastic packaging. Plastic contributes heavily to land pollution.

We can reduce our carbon footprint by reducing the amount of plastic bags we use.

Let's do our part by learning how to make a recycled cloth bag from old T-shirts.

## Material

- 1 old T-shirt
- Scissors
- Items to decorate bag (optional)



## Method

1. Fold the T-shirt in half and cut off the sleeves.

3. Open the T-shirt flat on your workspace.

4. Measure the bottom of the T-shirt into strips of approximately 3-4 inches and cut them.

6. Lastly, turn your bag inside out.

Use your bag for trips to the grocery to help save the environment.



# Water Pollution

Water pollution is the contamination of water by trash, toxic chemicals, fertilizers and other unwanted pollutants. Less than 1% of the world's water supply is suitable for drinking. Where did you get your water from today?

## Making a Water Filter

### Materials

- A jar of dirty/muddy water
- A plastic soft drink bottle cut as shown below (Ask an adult to help cut the bottle and punch a hole through the lid of the bottle)
- Filter material

### Filter Material Options:

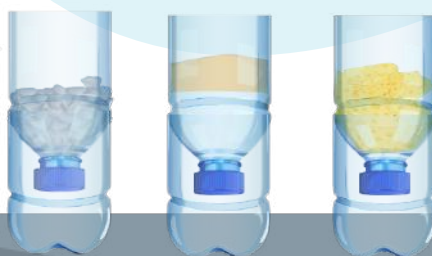
- Cotton wool
- Chips of wood
- Coffee filters
- Paper towels

### Method

1. Cut off the bottom half of a bottle and put the top half to stand upside down. Add your filter item of choice to the bottle.
- 2.
3. Pour your contaminated water (water with leaves, dirt, etc.) into the top and watch it filter!

### Super Challenge

Place different filters or a combination of filters into different bottles and see what works best!



# 8. The Daily Cycle

Cut and paste the activities from the next page that take place in the correct sections for day or night.

Day	Night

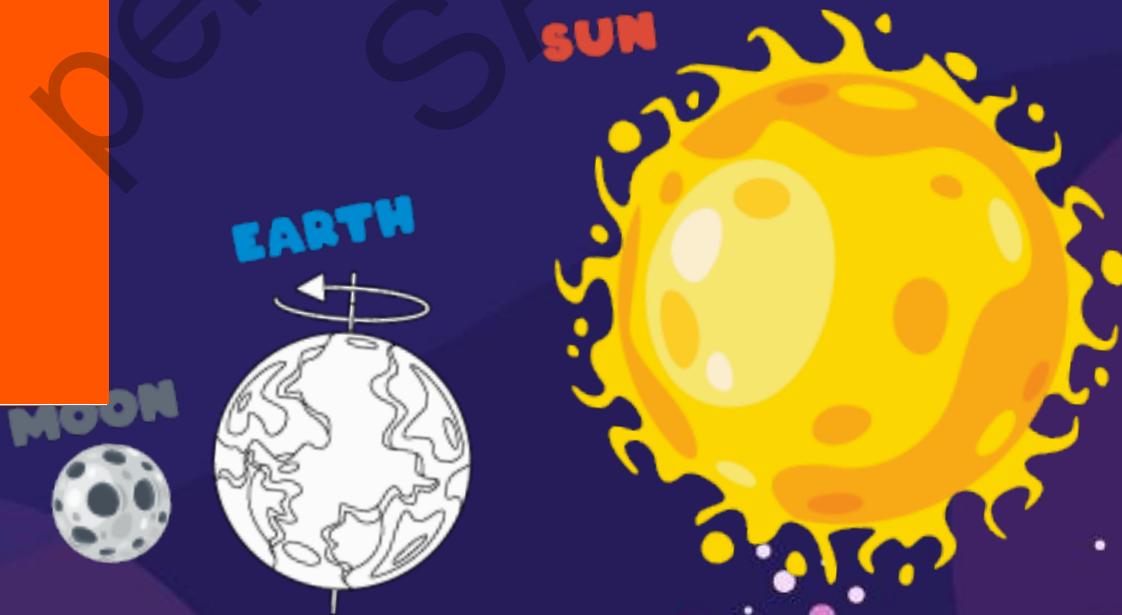
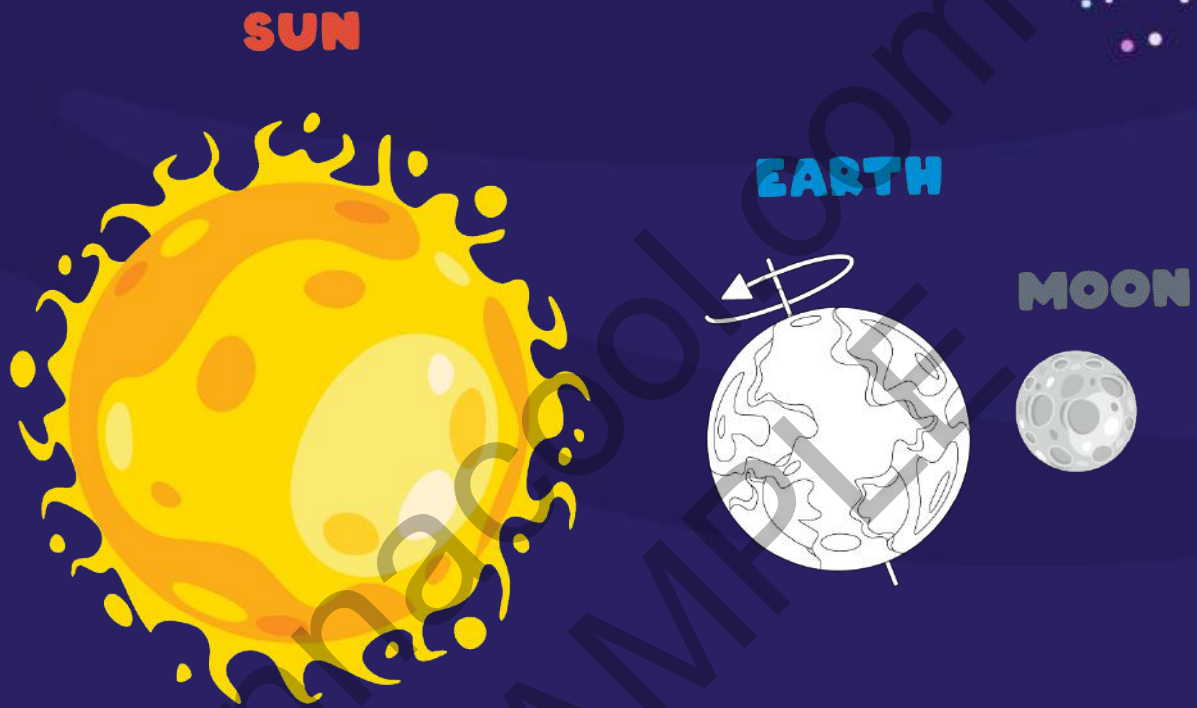








When the Earth spins, only half of its surface faces the Sun. This side experiences day, while the other experiences night. Shade the side of the Earth that is seeing night and colour the side that is seeing day.



# Things I Do in My Day

Omar got a bit muddled this morning. He woke up at the kitchen table. He brushed his teeth in bed. He ate [redacted] and then he went to school on the bus!



Oh my, can you draw the correct sequence of Omar's day?

--	--	--

Hint: He starts in his bed and ends up in school.



## 9. Wet and Dry Season



In Trinidad and Tobago we have two seasons,  
the                     

When the sun is hot, I like to \_\_\_\_\_.

When the rain falls, I like to \_\_\_\_\_.

The season I like the best is \_\_\_\_\_.

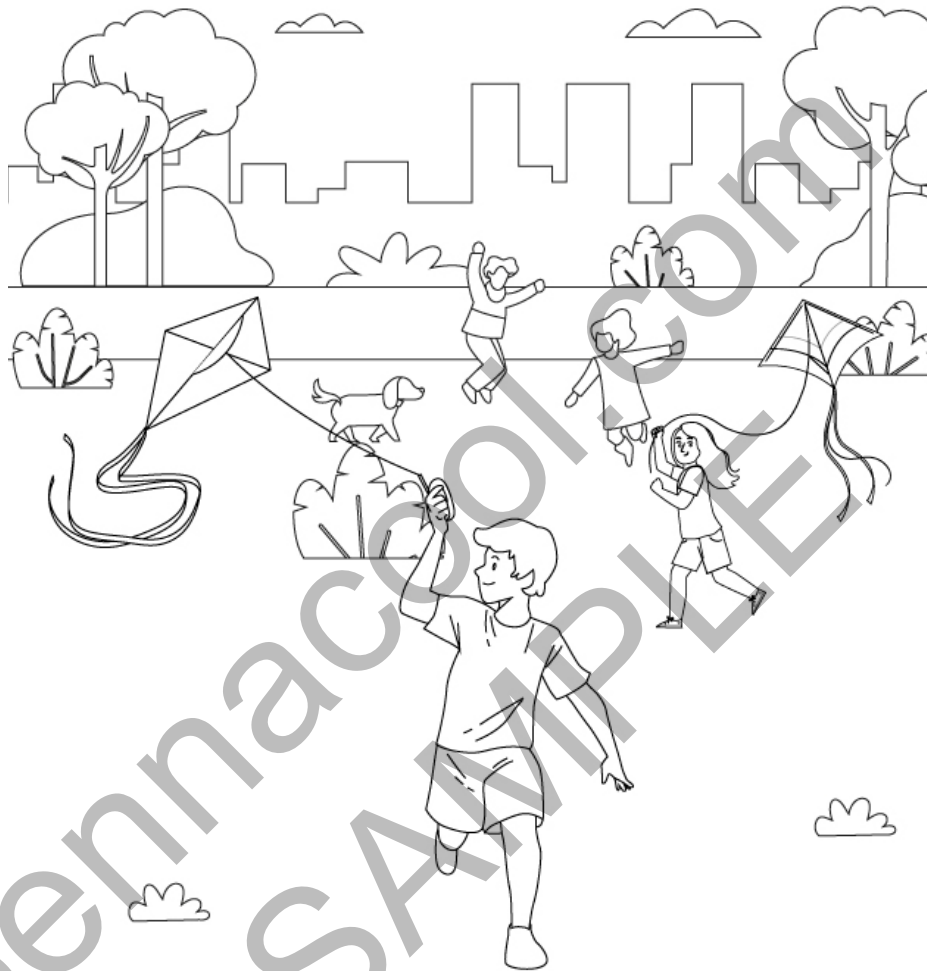
Place a picture of you having fun in the season you like the best.  
You can be as creative as you like.





Colour the picture and name the season either Wet Season or Dry Season.

---



Water is a precious resource that can run out if we are not careful.

In this season, we must be sure to conserve water.

What are some ways you can conserve water at home?

HINT: Go to [pennacool.com](http://pennacool.com) and watch the videos under 'Seasons' on the Science portal.

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Colour the picture and name the season either Wet Season or Dry Season.



When our drains and waterways are blocked, this can lead to flooding in this season. What are some ways we can help prevent flooding?

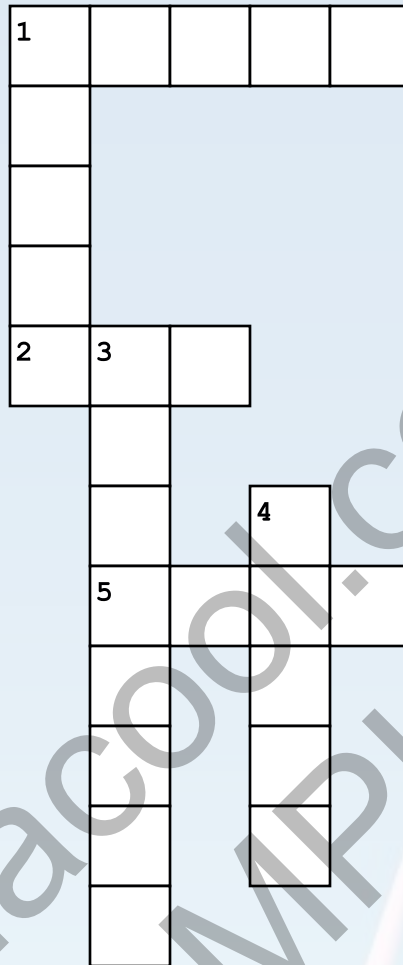
HINT: Go to [pennacool.com](http://pennacool.com) and watch the videos under 'Seasons' on the Science portal.

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Clues

Across

- 1. 
- 2. Lots of s\_\_\_\_\_ shines in the dry season.
- 5. Lots of r\_\_\_\_\_ falls in the wet season.

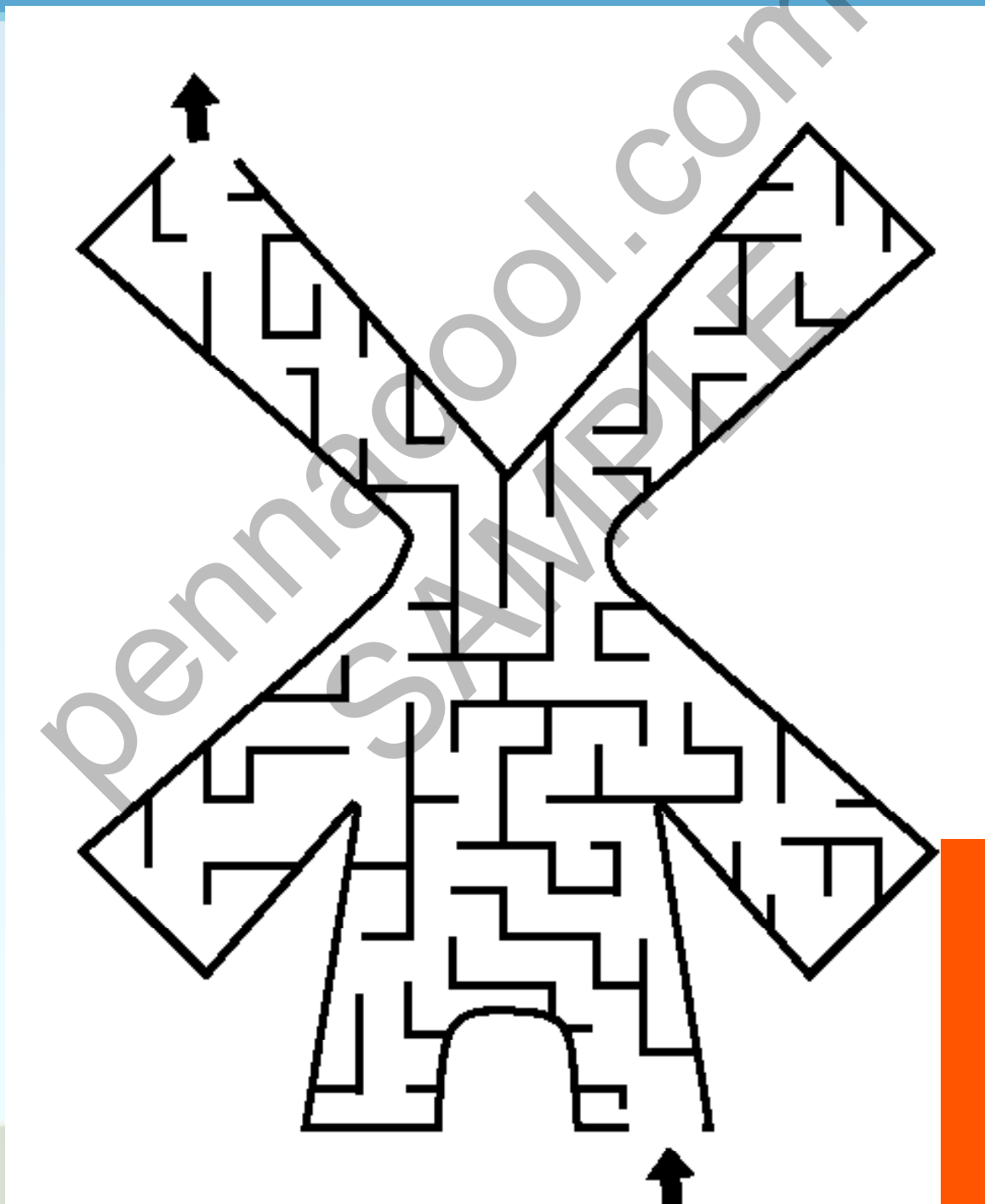
Down

- 1. Wear b\_\_\_\_\_ on your feet when it is raining.
- 3. 
- 4. We can fly k\_\_\_\_\_ in the dry season.

# 10. Wind Energy

Wind is a powerful source of energy.  
It is free and cheap and available all around.

Can you help the wind find its way around the windmill?



# Wind Experiment

Wind moves things.

Gather the following items: a ball, paper, a pencil, a rock, a feather, and a balloon. Which ones can you move by blowing on them? Draw them in the box.



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SAMPLE

Which items did not move? \_\_\_\_\_  
\_\_\_\_\_

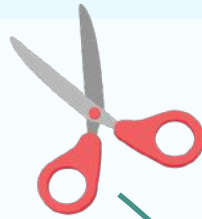
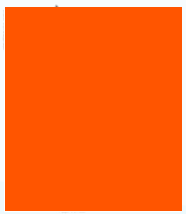
Why do you think they did not move? \_\_\_\_\_  
\_\_\_\_\_





The wind can be very powerful. It moves things around.  
It blew the children's items

Follow the trail of items back to the students to see who has  
lost their items.



1.

2.

3.

4.

5.

# 11. Devices That Use Wind



## Materials

Paper  
Push pin





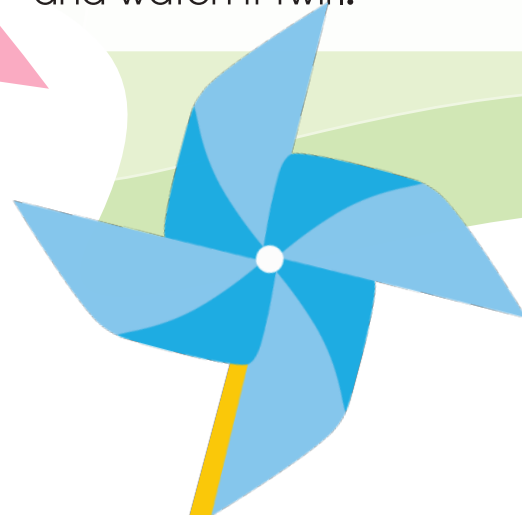
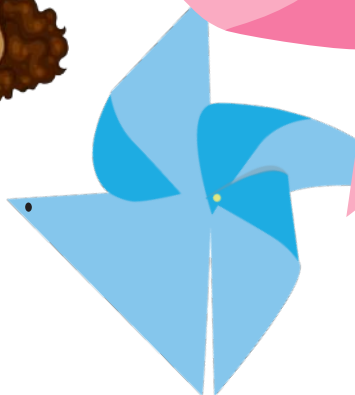
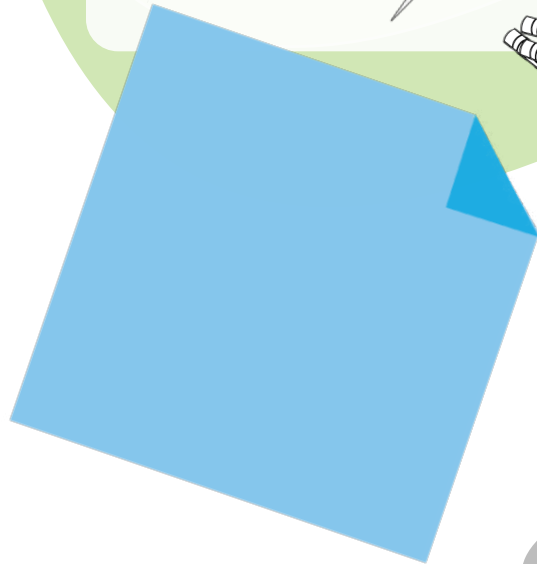
Scissors  
Crayons or markers



Button or bead

## Method

1. Cut a square piece of paper.
2. 
3. Follow the template given and cut the squares on the lines going half way into the square.
4. After making the four cuts, you will have 8 tips on your square.
5. Bring every other tip to the center and pin it.
6. 
7. Blow on your windmill and watch it twirl!





# Agri- Science



# 1. Our Ancestors and Agriculture

Our ancestors are the members of our

Trace your family tree back to three generations. Stick a picture of you, your parents, grandparents and great-grandparents in the form of a family tree in the space below.



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SAMPLE

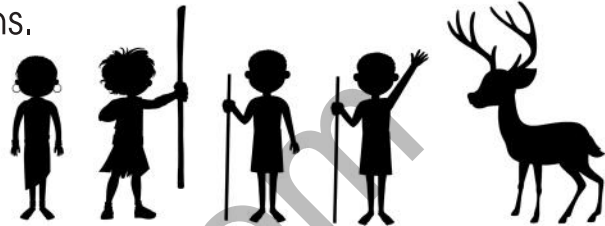




# Our Ancestors' Roles in Agriculture

If we go back hundreds of generations, we can see that some of our ancestors belonged to major groups of people who lived on our islands. These include the Indigenous Taino and Kalinago peoples, as well as Africans and East Indians.

## The Indigenous Peoples



"Ameyro! It's time to go!" Ameyro opened his eyes and peered into the darkness. He saw the gentle flickering of the fireside and jumped up. Today was the day he went on his first hunt. He had been waiting for months for this opportunity. He fastened the knife his grandfather gave him to his belt and ran after the group of men. They trudged silently in the dark over the large tree roots and under the thick brush. The rain had left the ground soft and squishy. It would be easy to track an animal. Suddenly, everyone froze. Ameyro felt his heart in his throat. He couldn't wait for the attack! There was a loud "swoosh" as the arrow flew through the air and into its target.

quite a large deer. They prepared it for roasting, rubbing seasonings such as ginger, nutmeg and roucou into the meat. "How was it?" Ameyro jumped, unaware that his sister, Naima had snuck up on him. She was carrying a basket full of cassava, moko and pigeon peas to add to the communal meal that was being prepared. "It was better than I expected, but too dark. I couldn't see anything," replied Ameyro.

"Well maybe next time you'll be closer," Naima said.

"Next time it'll be my arrow!" exclaimed Ameyro.



**Circle the best answer for each question below.**

1. Based on the passage, the men in Ameyro's village are mostly:

- a. Hunters
- b. Gatherers
- c. Farmers

2.



- a. Hunters
- b. Gatherers
- c. Farmers

3. Based on the passage, what tools did the hunters need for hunting?

---

---



## Action Time!

Imagine that you are Ameyro and that you had caught the deer. Re-enact the story showing how you would have behaved. Think about the emotions you would have felt. Discuss this with your class. Have you had any of the foods Naima harvested? Stick photos

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SAMPLE







On the lines provided, write what these foods are commonly used for.

Moko

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---

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# Cooking Time!

Find a recipe that uses  and create the dish. Stick or draw a picture of your dish in the box below.



Then, colour the picture of Ameyro and Naima.



# The Africans

Dawa wiped the sweat off her brow as the midday sun beat down on her. She had become accustomed to the routine. After all, it had been about six months since her arrival on the plantation. She swung her blade back and forth, making sure to get as much of the cane stalk as possible. Her arms had long adjusted to the hard labour, though her shoulders sometimes gave a sharp pain. They had not gotten used to moving freely after all those months on the ship. She looked over at the new girl to her right. Her technique was slowly improving as she used the tips Dawa had been able to show but not tell her, since they did not speak the same language.

the cottage. The girl limped along, her body still adjusting to the hard labour performed by the enslaved people on the plantation. As they approached the cook site, Dawa could smell the salted meat in the pot. She saw Miss Sara, one of the elders, preparing some dasheen leaves to add to the pot. Her stomach let out a loud roar and she started salivating. Although Dawa missed the flavour of the foods back home, she was grateful that some of what they were able to eat here was close enough. The two girls sat around the fire with the others, waiting for the food to finish cooking. Once it was ready, Dawa scooped hers up and put it in her mouth. For one second, she felt the sharp pain of the heat, but it did not conquer the satisfaction of the food hitting her stomach, filling the void that hunger had left. She closed her eyes and allowed herself to imagine that she was home again. Then, she opened them and served herself another mouthful.

Circle the best answer for each question below.

1.



- a. Fresh salad
- b. Callaloo
- c. Bhagi

2. What crop was Dawa harvesting?

- a. Dasheen
- b. Bananas
- c. Sugar cane

3. What type of tool do you think Dawa needed to harvest the crop? Write the name on the line and draw a picture of it in the box below.


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# Action Time!

Pretend you are working with Dawa in the field using the same tool you identified. Re-enact what cutting the cane would have looked like.   
feel. Discuss this with your class.

Locally, we use salted meats to help flavour foods. Identify three foods that salted meat is added to and stick pictures of them in the boxes below.

**Food Name** \_\_\_\_\_

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SAMPLE



**Food Name** \_\_\_\_\_

**Food Name** \_\_\_\_\_

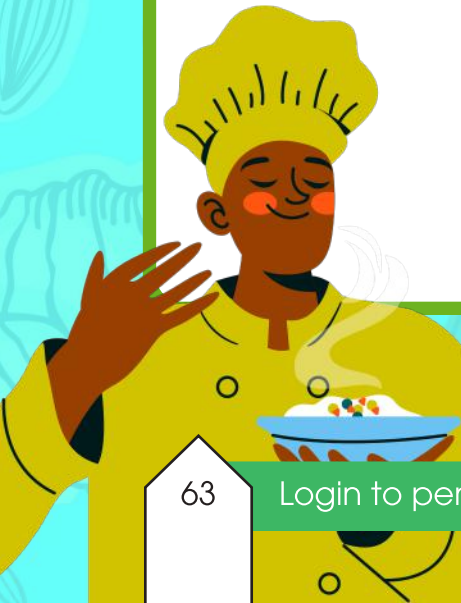




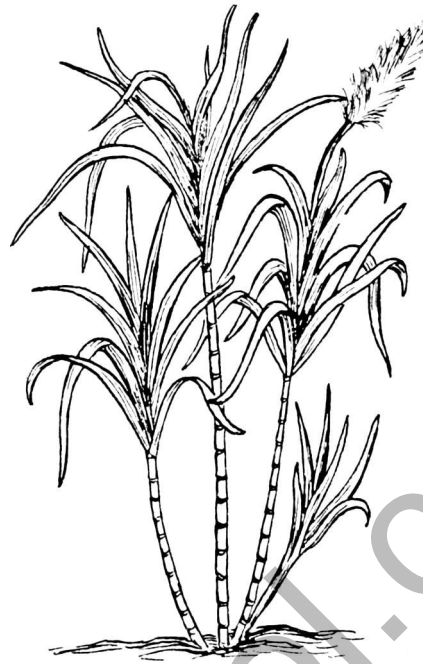
# Cooking Time!

and create the dish. Stick or draw a picture of your dish in the box below.

pennacool.com  
SAMPLE



Colour the picture of the sugar cane below.



Can you help Dawa get from the cane fields to the cottage area in time for dinner?

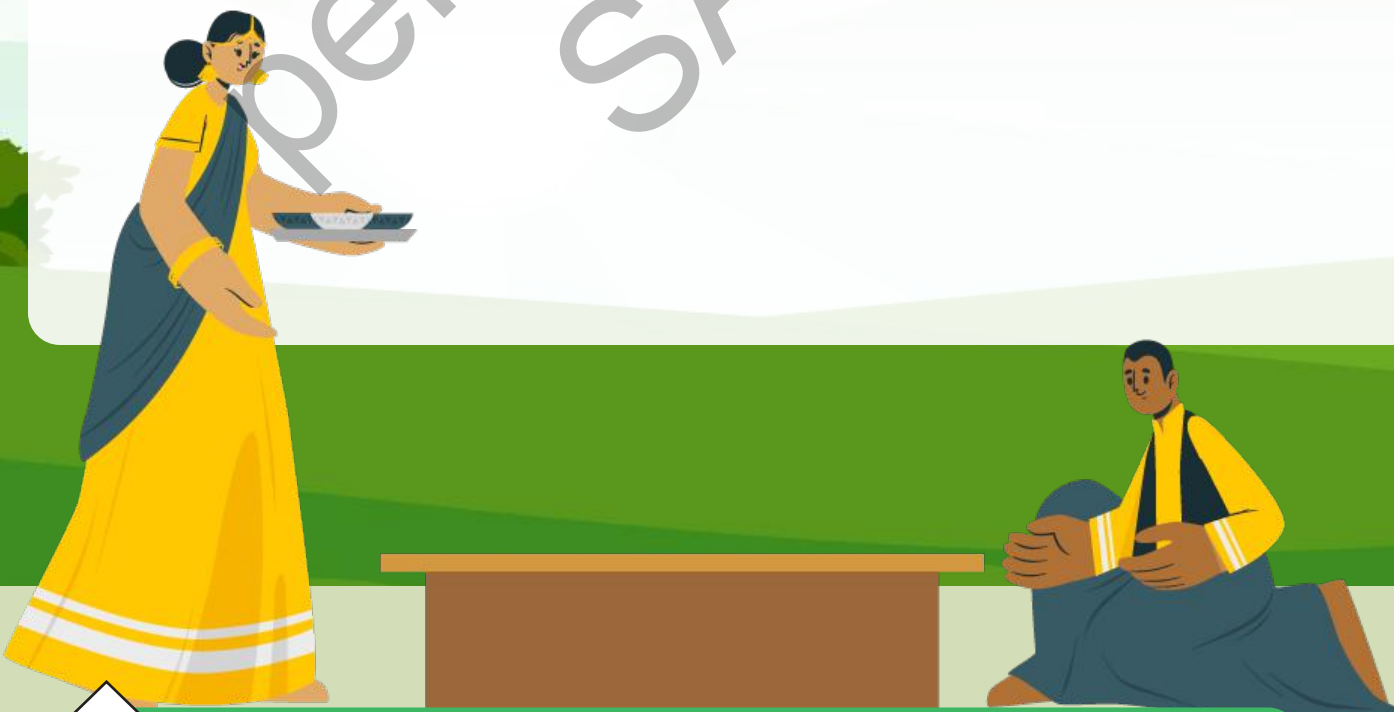





## The East Indians

Avinash could smell the curry before the barracks were even in sight. He had gotten a bag of rice on his way home and couldn't wait to sit down and have the meal his wife Sita was preparing for him. As he rounded the corner, he saw the edge of her blue sari disappear behind the kitchen window. She was busy at work. At the same time, the tiredness of the day's work was weighing on him. The overseers on the plantation were in a mood today and had been especially cruel. He had made his best effort to do his work perfectly to avoid any disciplinary action.

smile. He gave her the bag of rice and she began to prepare it. Finally, it was dinner time. Sita laid out the food on a tray and they sat at opposite ends of the table and began to eat. The mouth-watering dahl was perfectly cooked and seasoned. The bhagi wasn't too bitter and the rice was just the right texture. Avinash thanked the Gods for his meal and thought about his home in India, which he had left to come to this strange land.

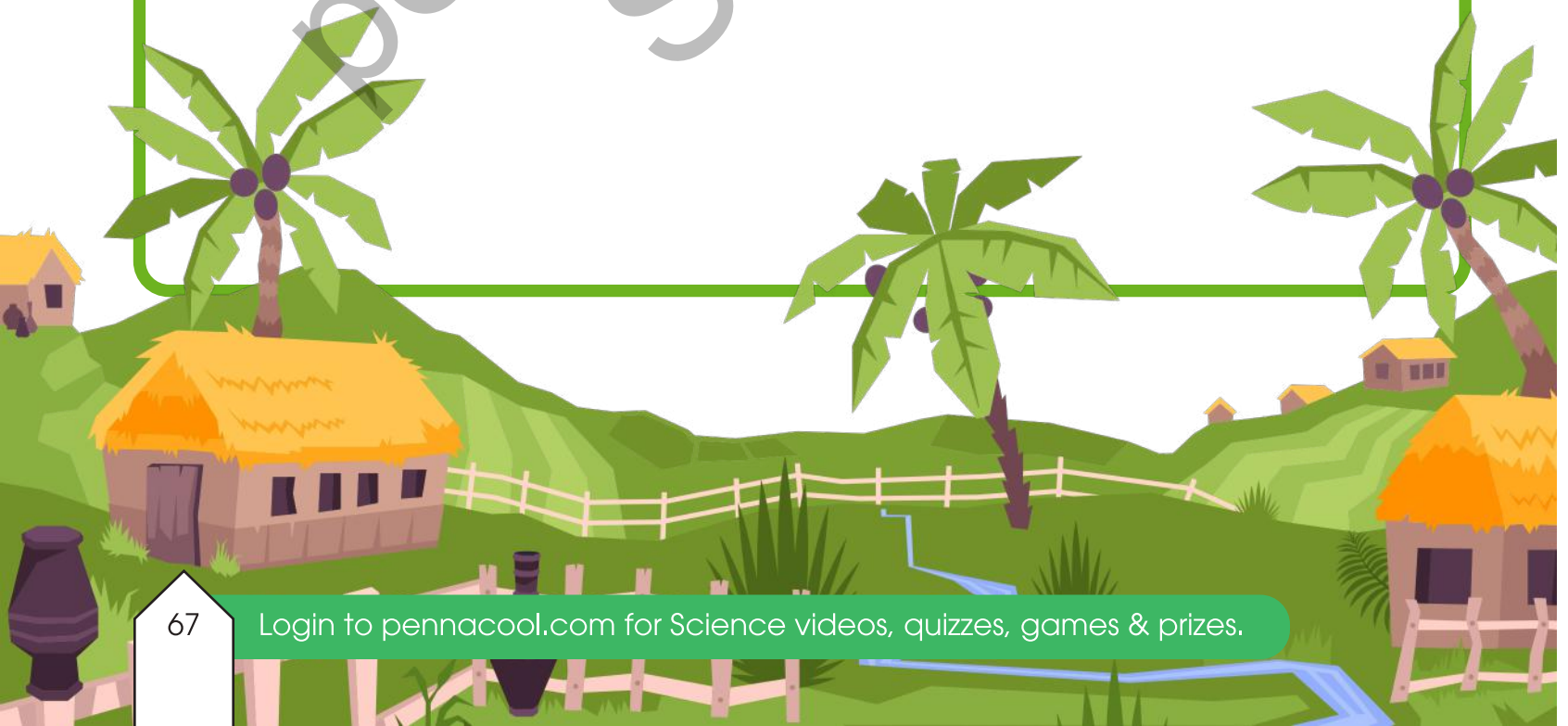


Circle the best answer for each question below.

1. Based on the passage, Avinash is most likely:
  - a. A hunter
  - b. A gatherer
  - c. An indentured labourer
  
2. How did Avinash feel at the end of his work day?
  - a. Tired
  - b. Excited
  - c. Relieved
  
3. 
  - a. Mangoes
  - b. Sugar cane
  - c. Wheat

Draw a picture of Sita and Avinash's meal below.

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SAMPLE





What are some of \_\_\_\_\_ to describe Avinash and Sita?

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---

**Help Sita get to the store to purchase food for her next meal.**



At the store, Sita must buy:

- 5 lbs of rice for \$5
- 3 lbs of split peas for \$2
- 5 lbs of flour for \$5



How much money will she spend in all?

---

---

## Cooking Time!

Sita prepared a meal of dhal, rice and bhagi. What are some other East Indian foods that are eaten locally? Name three.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_



Find a recipe for one of the East Indian foods you listed and prepare your meal. Stick a picture of your meal in the box below.

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Solve the riddle to reveal an important crop used in East Indian cooking.

I'm a spice, both golden and bright,

I stain your hands, turning them yellow,  
But in dishes, I make them mellow.

Guess my name, a spice quite unique,

What am I?



I am

T       R    M       R       C

# Word Search

S R S Z J F D C F L N R  
O C D C V R O U C O U I  
O [REDACTED] C  
L [REDACTED] E  
P [REDACTED] U  
Y [REDACTED] S  
S W E E T P O T A T O L  
A U D T U R M E R I C C

Find the following words in the puzzle above.

CALLALOO

MOKO

TURMERIC

DASHEEN

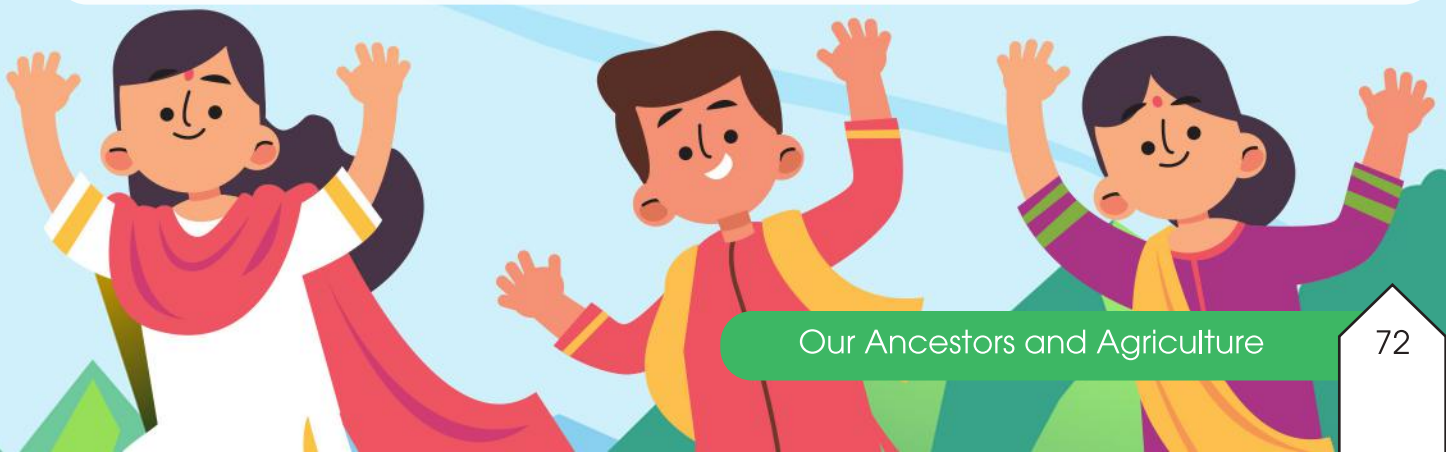
PIGEON PEAS

ROUCOU

DHAL

RICE

SWEET POTATO





# Build Your Vocabulary

A. Use the words from the word bank to write the words next to their meanings.

discipline

commitment



sacrifice

Word	Meaning
	To give up something for the sake of someone else.
	A sequence of actions regularly followed.
	Doing what you're supposed to do, even if you don't feel like it, because it helps you grow.
	A promise to do something and stick to it.
	A feeling of very strong support for or loyalty to someone or something.

B. Now use the words to complete the sentences below.

2. Avinash shows great \_\_\_\_\_ to his job on the plantation.

3. It would have been a great \_\_\_\_\_ for Dawa to give her food to the new girl when she was hungry.

4. For Ameyro to become the best hunter in his village, he would have to make a \_\_\_\_\_ to training and learning from others and have \_\_\_\_\_.

# Journal Entry

Think about the meanings of the words you just learned. Write a journal entry reflecting on a time you showed or experienced any of those words. What did you do and how did you feel?

Journal entry writing area with 15 horizontal lines. A large watermark reading "pennacool.com SAMPLE" is overlaid diagonally across the page.

# Word Search

D V J J A E E R H R X Z  
M  
S  
B  
B  
A  
D E D I C A T I O N R M  
C O M M I T M E N T A J

Find the following words in the puzzle.

COMMITMENT

DISCIPLINE

SACRIFICE

DEDICATION

ROUTINE





## 2. The Plants They Used



### The Foods They Ate

In Trinidad, many of our beloved foods descended from the Taino and Kalinago peoples. These include **cassava bread**, **barbecue**, **coffee**, **cocoa**, **chadon beni** and **corn-based meals**, like **pastelle**.

Look at the pictures of the various foods below. Can you correctly label them using four of the bolded words in the paragraph above?



# Plant Detective

Cheyenne needs to collect these ingredients from the forest. Some grow below the ground. Some of them grow on trees. One of them grows as grass. Can you find them in the box below? Circle them when you do.



chadon beni

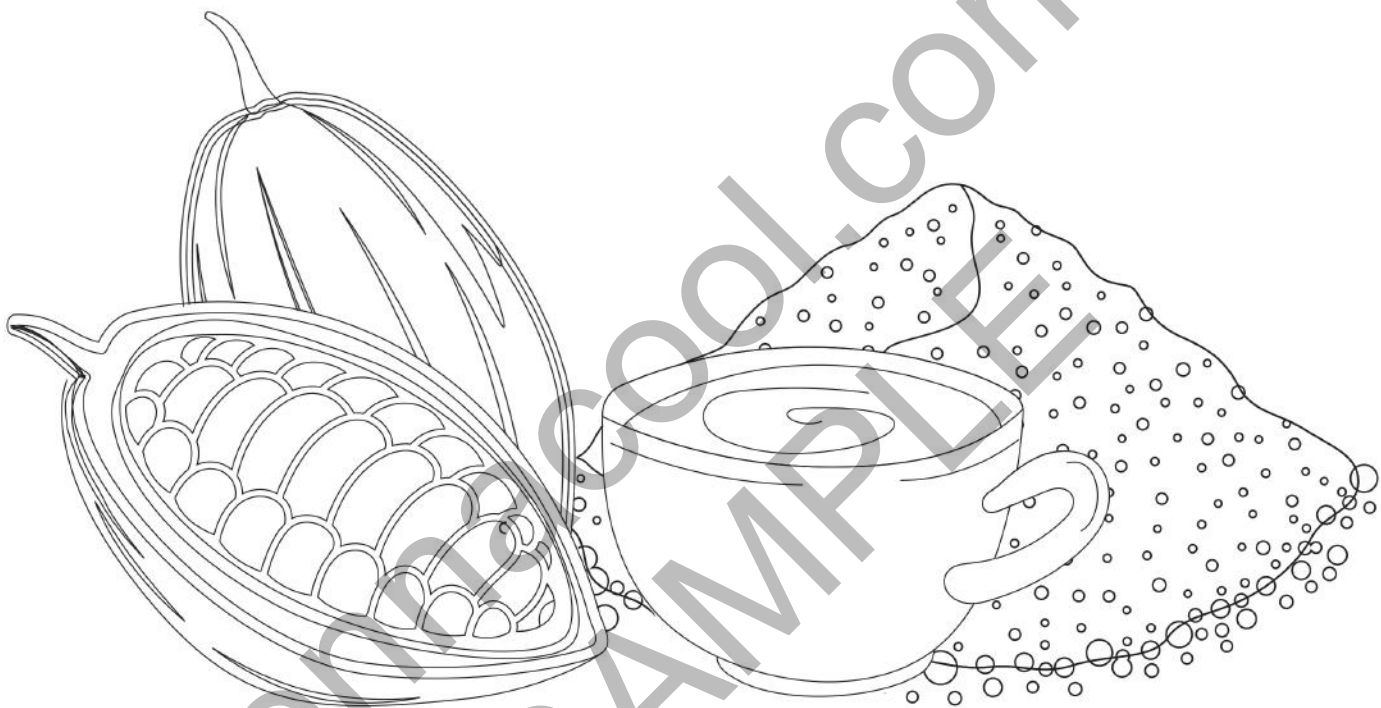
cassava

cocoa





Colour the picture of the cocoa pod and cocoa tea below.



Match the food item to its category by use.

### Category

Food

Beverage

Medicine

Spice

Building

Craft

Religious

### Item

bamboo

nutmeg

ixora

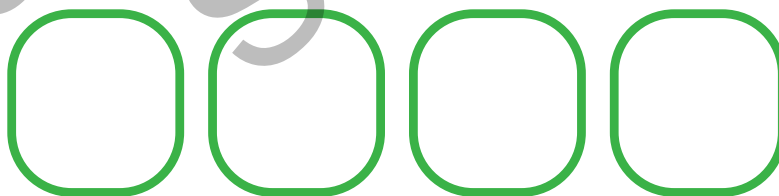
coconut

mango

sorrel

vervine

Crack the code to determine what type of tree is commonly used to make furniture such as tables and chairs.



Hint: Each letter needs to be replaced with the letter that comes before it in the alphabet.



# Canoe Building

A canoe is a narrow boat that you steer by paddling. Most canoes are light, so that one or two people can carry them easily to water.

The canoe was built from an entire log by carving the insides hollow and keeping it pointed at both ends.

Colour the picture of the canoe below.




# Let's Build a Miniature Canoe

## Materials

- 1 bar 
- 1 spoon

## Instructions

1. Use the spoon to carefully hollow out the centre of the 
2. Shape the sides of the bar, ensuring that you make both ends pointed. Be gentle the closer you come to finishing your craft so that you don't have to start over.
3. Save all the soap shavings, as they can be used for washing up.
4. Once you have completed your canoe, display yours alongside the rest of your classmates'.



### 3. The Animals They Reared



Our ancestors used the animals around us for many different reasons, such as for **food, transportation, religious purposes** or even as **pets**.

Draw a line to match each animal to its use.

Animal

chicken

horse

dog

cow

Category




food

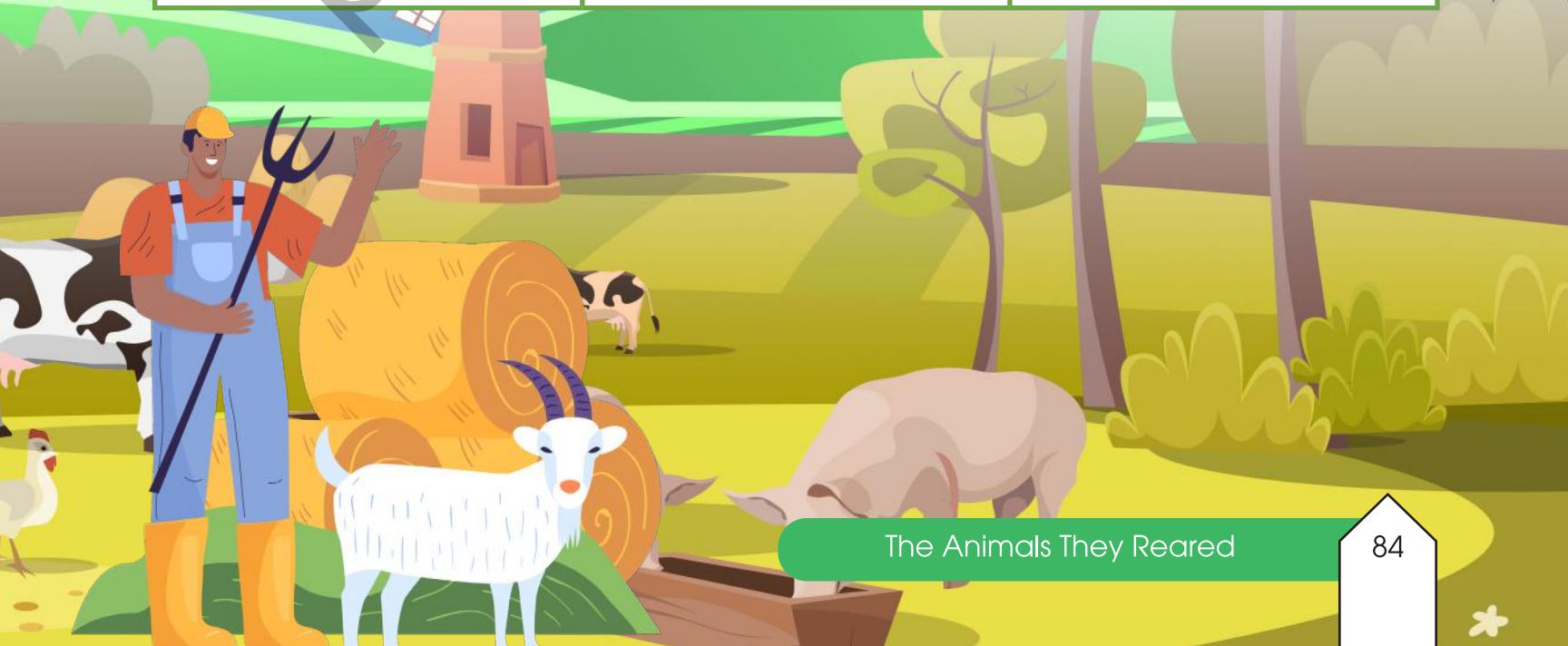
transportation



# Confused Farmer Carl

Uh oh! Farmer Carl is confused. He has mixed up his animals and doesn't know which category they belong in. Help Carl remember by sticking or drawing pictures of two animals in each category.

Food		Transportation





Can you help Farmer Carl get from one side of his farm to the other?



## 4. Agricultural Folklore

### Planting With the Moon

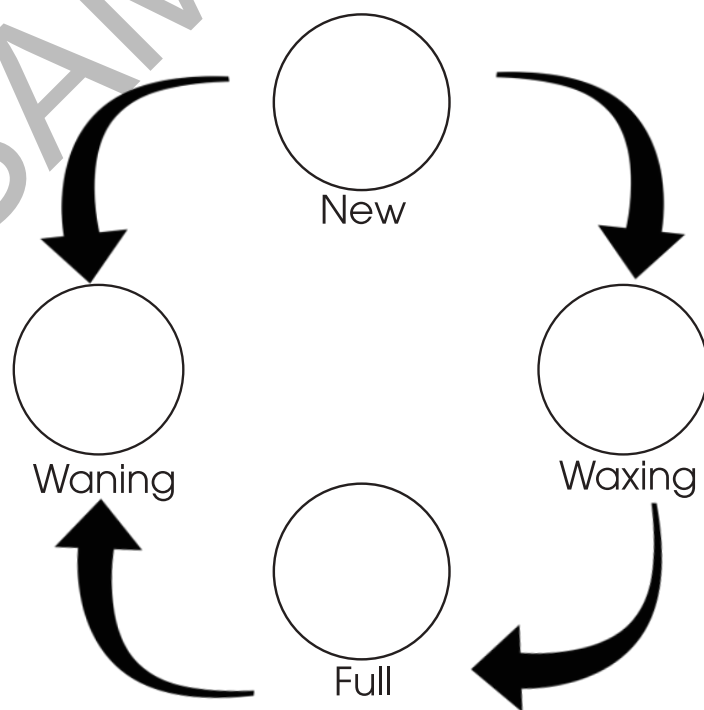
One of the earliest folklore practices in agriculture is to plant with the moon. Today, many farmers still do this to achieve the best yields for their crops.

The moon produces a **gravitational pull** on the Earth's waters. This is what gives us high and low tides. Farmers believe that this also affects the water in the soil.



The moon goes through **four major phases** every month.



Colour in the phases of the moon.



Fill in the missing vowels of the moon phases to see what actions farmers do during each phase.

Moon Phase	Action Taken
	Plant seeds that yield fruit (above ground).
	Plant root crops (below ground).
W__n__ng	Graft and transplant seedlings.
F__ll	Weed, prune and/or harvest crops.

In the calendar below, write the dates of the four main phases of the moon for this month. Colour the day of the full moon yellow, the waning moon orange, the new moon green and the waxing moon blue.



A calendar grid with a yellow header and a grid of 5 rows and 7 columns. The grid is intended for writing the dates of the four main phases of the moon for this month. The header is yellow, and the grid cells are white with red borders.

# Fishing With the Moon

Fisherfolk also fish according to the moon phases and the species of fish they are hunting.

RESEARCH IT!

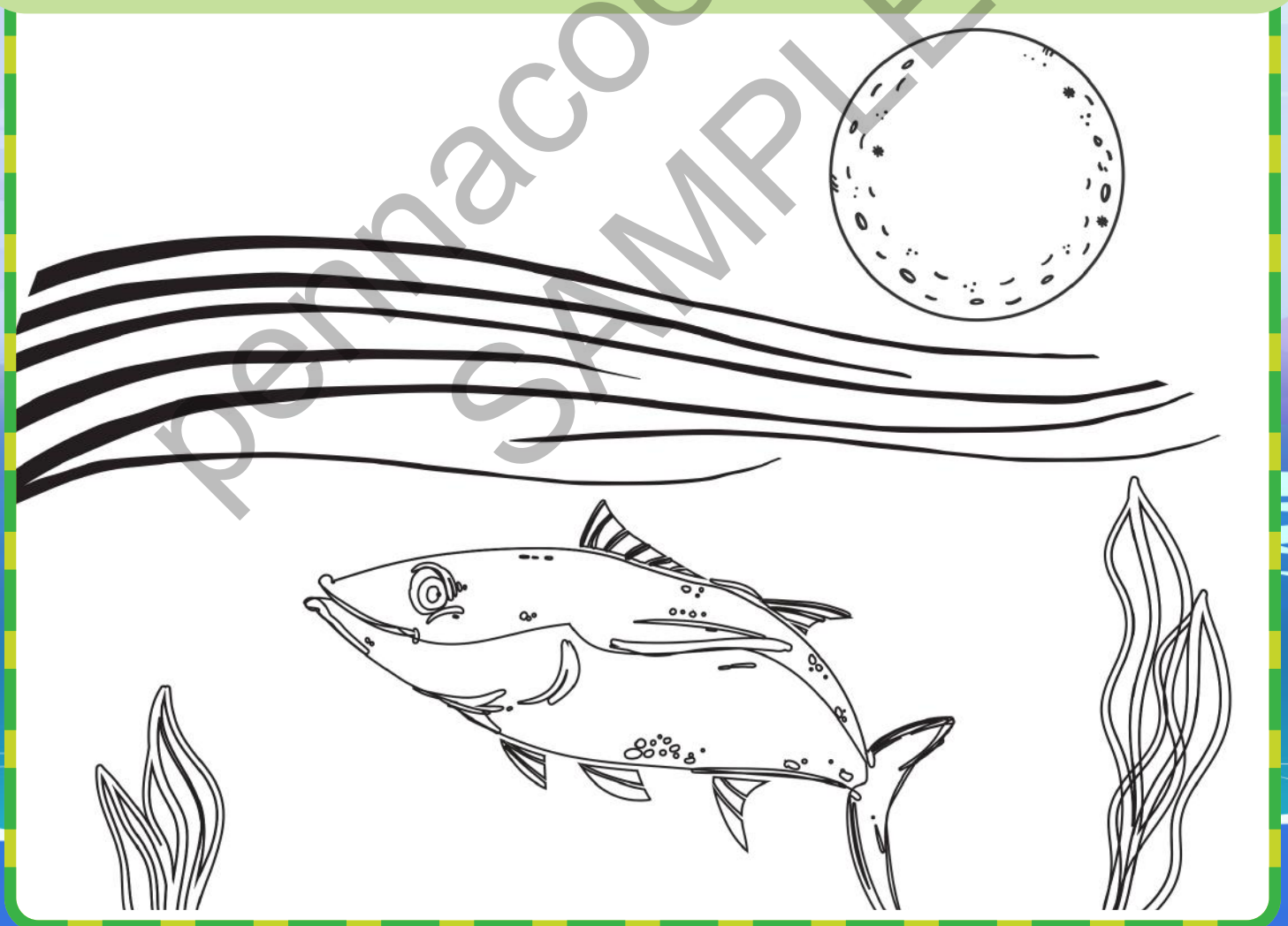


Find out what time of the lunar (moon) phase that kingfish are most abundant and write it in the space below.

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Colour the picture of the kingfish under the moon below.





# 5. Farm Components



Look at the areas of a farm below. Use the word bank to identify who uses each area.

		<b>Chickens</b>
---	---	-----------------



Now it's your turn to construct a model of a farm from the era of our ancestors. Be sure to include figurines of plants and animals that would have been present as well as any buildings and fences.

Stick a picture of your completed model in the box below.

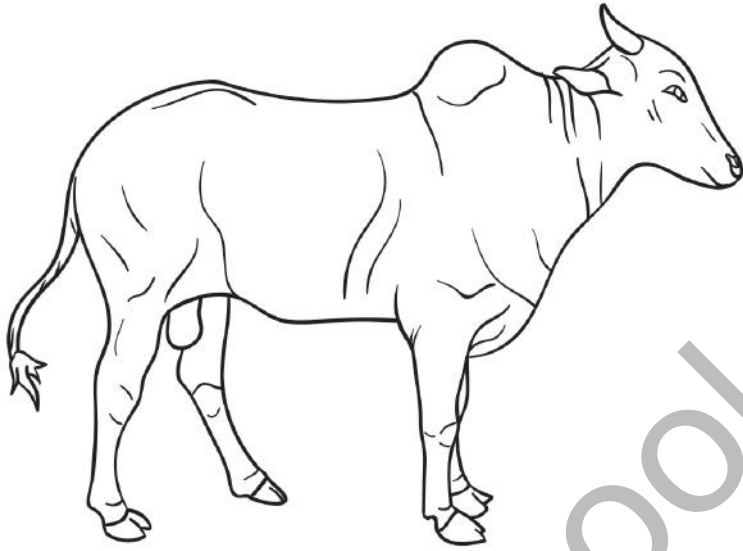
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Farmer Donna has 10 chickens, 6 ducks, 2 cows, 3 goats and 1 sheep. How many animals are there on the farm?

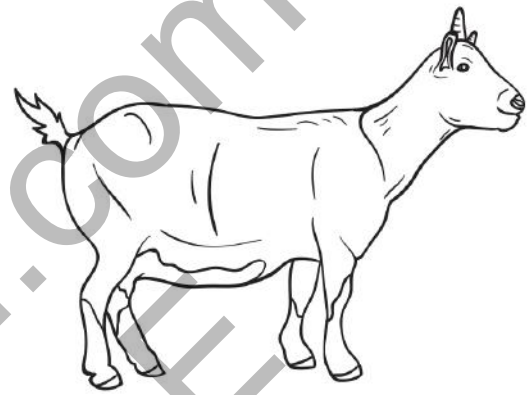
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Colour the picture of the farm animals below.



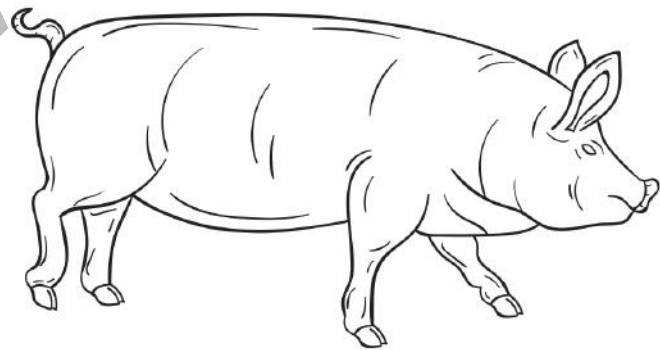
**Cow**



**Goat**



**Chicken**



**Pig**



There are ■ differences between the pictures below.  
How many can you find and circle?

