

# Hub B Year 4 Home Learning

10th May 2021

## Reading

### Day 1

This week we are looking at a non-fiction text called *Habitats* by Anna Claybourne. We are going to be looking at the skill of clarifying.

What is a **species**?






*I think the word species means....*

What does the word **adapted** mean?

*I think the word adapted means....*

What is a **habitat**?

Why is it important to have the **right** habitat?

Code Clues		Look for clues! Circle words, think what phrases could mean, look for question words / instructions
Locate		Find where the answers might be on the page and in the text. (Skim and scan)
Explore		Read around—is the answer before / after that word / phrase or sentence?
Answer		Write the answer—to the point!
Re-read		Re-read and check—does what you have written match the question?

Describe what an **ecosystem** is.

## WHAT IS A HABITAT?

A habitat is the natural home of an animal, plant or other living thing. Each type, or **species**, of living thing has its own habitat, where it is found in the wild.

For example, the sand cat is a desert animal. Its natural habitat is sandy or rocky deserts in North Africa and parts of Asia.

Living things are **adapted** or suited, to their habitat. The sand cat has fur on the soles of its feet to help it walk over hot sand. Its fur also keeps it warm at night, when deserts can be cold. Its big ears and sharp pupils help it find small prey in the dark.



A sand cat grows around its natural habitat, a sandy desert.

### THE RIGHT HABITAT

Each living thing, or **organism**, needs to be in the right habitat to survive. Put the sand cat in the warm Atlantic Ocean and it would not be happy! It wouldn't be able to swim for long, or food is scarce underwater so go hunting. Its thick fur would get wet and become heavy, and it would soon get too cold.

On the other hand, a humpback whale is adapted to life in the ocean, with its flippers, rubbery skin and a blowhole on its head for breathing. But in the desert it wouldn't survive a day. It would over heat and be unable to move.

This means that if habitats change or get damaged, living things can struggle to survive. For example, forest creatures, such as monkeys, can die if their forest habitat is cut down.



A humpback whale roams its home, the open ocean.

## HABITATS AND BIOMES

A habitat can be big, like a desert, or small like a pond or an old, hollow log. On a large scale, the Earth's surface can be divided into several main habitat types, called **biomes**. Each biome also contains many smaller habitats.



- tropical rainforest
- temperate grassland
- ice sheet and polar desert
- mountains
- desert
- seas and oceans
- ice sheet and polar desert
- mountains
- desert
- seas and oceans
- ice sheet and polar desert
- mountains
- desert

### ECOSYSTEMS

An **ecosystem** means a habitat and all the things living in it. Besides needing the right habitat, living things depend on other organisms in their ecosystem. For example, a sand cat needs desert rodents and lizards to feed on. In turn, these animals need to eat desert plants or insects.



Sand cats hunt and eat **venomous snakes**.

## Day 2

Read the text and complete the questions below.



Why is the **coral reef** struggling to survive?

*The coral reef is struggling to survive because...*

What does the word **endangered** mean?

*I think the word species means....*

Where have you seen this word before? Can you make a connection?

What does the word **extinct** mean?

*I think the word extinct means....*

How does **climate change** affect **habitats**?

### Day 3

Using the sentence stems below, clarify the meaning of any words or phrases you are unfamiliar with.

*I think that means...*

*I didn't understand...*







*What does [...] mean?*

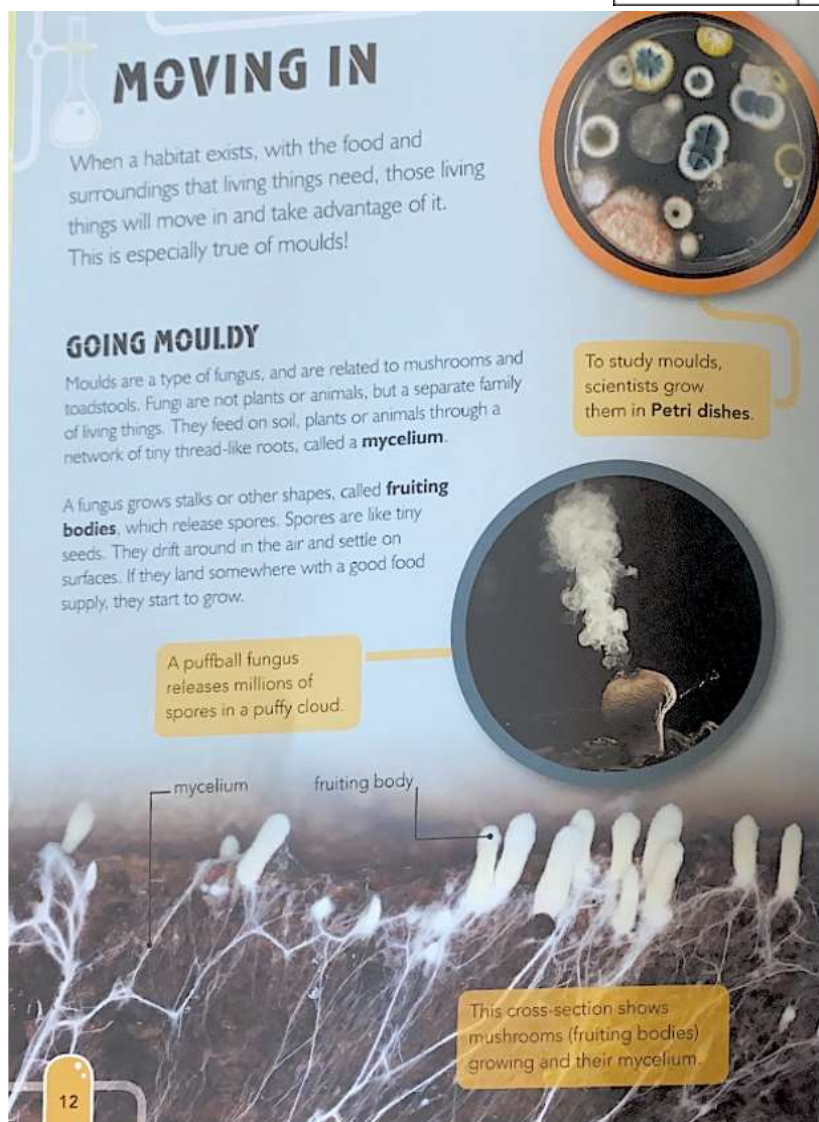
*I need to reread this part because...*

*[...] is a tricky word so I need to...*

*I didn't understand [...] so I could...*

*Let's reread this part because it didn't make sense*

<b>Code</b>		<b>Look for clues!</b>
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## Day 4

Read the questions below and answer the following questions.

What is the difference between **predator** and **prey**?







*The difference between predator and prey is....*

*How do living things survive in **harsh habitats**?*

*Living things survive harsh habitats because....*

*How do seals, whales and polar bears survive swimming in cold waters?*

*These animals survive swimming in cold waters because....*

<b>Code</b>		<b>Look for clues!</b>
<b>Clues</b>		Circle words, think what phrases could mean, look for question words / instructions
<b>Locate</b>		Find where the answers might be on the page and in the text. (Skim and scan)
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<b>Re-read</b>		<b>Re-read and check</b> —does what you have written match the question?

### KEYSTONE SPECIES

Sometimes a species improves the habitat it lives in. When a living thing is key to the ecosystem working well, scientists call it a **keystone species**.

For example, honeybees are a keystone species. They pollinate flowers, spreading pollen from one to another. This allows plants to make seeds and fruit so they can reproduce. Bees helping plants to survive creates food and habitats for many other creatures too – aphids, ants, rabbits, butterflies, birds and so on!

The sea urchin is a keystone species. It eats sea anemones – animals related to jellyfish.

Sea urchins eat **kelp stems**. If there are too many sea urchins, kelp forests can be destroyed.

Yellow pollen grains stick to the honeybee's body and brush off onto the next flower it visits.

Kelp forests are habitats for marine life. By eating sea urchins, sea otters help kelp forests and other animals.






### HOW TREES HELP

If we remove part of a habitat, it can have a serious effect on the ecosystem there. This is especially true for trees. Cutting them down can destroy habitats, known as **habitat loss**. All the living things there lose their home, and have to move elsewhere or die out.

A tree that took years to grow is cut down in minutes by a lumberjack with a chainsaw.

#### TREES CREATE HABITATS

Trees are living things that are also a habitat for many other organisms. Birds, squirrels, insects, snakes, frogs, kangaroos and monkeys can live in their branches, bark or leaves.

Trees also hold soil in place with their roots. The soil is a habitat for other, smaller plants, as well as bacteria, fungi and burrowing animals.

Tree roots reach a long way into the soil and burrowing animals, like this groundhog, often make their homes among them.





## Maths

### Lesson 1:

Activity	Child			
	1	2	3	4
10 Star Jumps				
10 Burpees				
Lap of the playground				

**LI: To investigate time to the nearest second.**

**Context: Application**

- **Identify** the start or end time
- **Time** the duration of the activity
- **Record** your activity times
- **Reflect** on the skills used during this topic



**Key Vocabulary:**

Hour, Minute, Second, O'Clock, Quarter To, Quarter Past, Half Past, Digital, Analogue, AM & PM

(Picture of children outdoors timing physical events)

**Reflection:**

**Learning journey**

1. What went well? (Think about school values, your attitude to learning)
2. What did you find challenging? How did you overcome this?

**Character skills**

3. When did you show the character skill integrity?



## Lesson 2:

**LI: To **convert** between analogue and digital.**

**Context: **Outcome** (Time)**

- **Read** the problem carefully
- **Decide** on the steps you need to take to solve the problem
- **Work** collaboratively
- **Explain** and **justify** your answers.



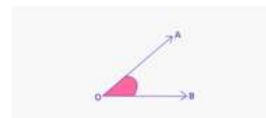
Photo

### Lesson 3:

#### LI: To assess prior knowledge of a topic.

#### Context: Pre-assessment (Properties of shape)

- Reflect on existing knowledge of shape
- Consider the use of shape in everyday life.
- Answer questions and reflect on your learning.



#### Key Vocabulary:


2D, 3D, Angles, acute angle, right-angle, obtuse angle, straight line, reflex angle, edges, vertices, quadrilateral, regular, irregular, symmetry, triangles, isosceles, scalene, equilateral.

Today we completed a pre-Assessment which will inform our learning for the rest of this term where we will be exploring the concept properties of shape.

**Year 4**  
Properties of Shapes

Name \_\_\_\_\_

1 Order the angles from smallest to largest:



A B C D

Smallest angle Largest angle

2 Draw another line on each diagram to make the type of angle written below it.

Right angle Acute angle

Obtuse angle

3 Decide if each statement is true or false.

	True	False
All the sides of an isosceles triangle are equal.		
A right-angled triangle has one angle that is 90°.		
A scalene triangle cannot have a right angle.		

**Year 3**  
Properties of Shape

Name \_\_\_\_\_


1 Circle the letters that have right angles:

T H E N


2 Match the objects to the most appropriate units of measure.

Length of an ant	cm
Length of a school hall	m
Length of a pencil	m

3 Circle the angles that are less than a right angle.



4 This ladybird is rotated.



Choose the correct word to complete each sentence.

quarter half three-quarter full

The ladybird has made a \_\_\_\_\_ turn clockwise.

The ladybird has made a \_\_\_\_\_ turn anti-clockwise.

#### Reflection:

On a scale of 1-5, how confident do you feel around the topic of properties of shape? Are there types of questions you feel confident answering? Are there types of questions you would like to find out how to solve?

**1 – Wanting to improve.**

**5 – Very confident**

In my opinion I would rate my knowledge of properties of shape to be \_\_\_\_ because...



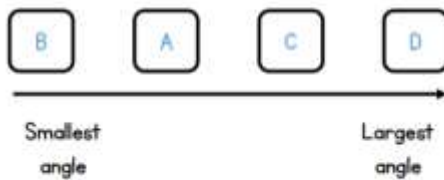
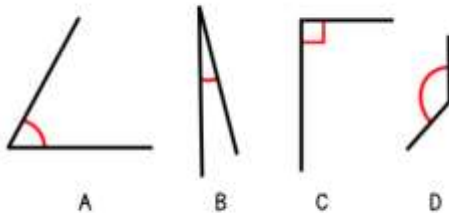


## Year 4

### Properties of Shapes

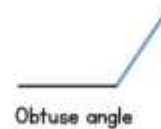
Name \_\_\_\_\_

- 1 Order the angles from smallest to largest.



White  
Stone  
Maths

- 2 Draw another line on each diagram to make the type of angle written below it.



☐ 3 marks

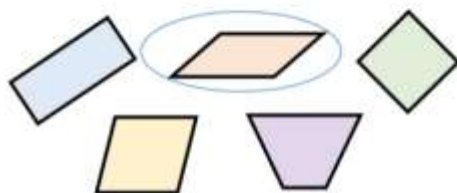
- 3 Decide if each statement is true or false.

	True	False
All the sides of an isosceles triangle are equal.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
A right-angled triangle has one angle that is 90°.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
A scalene triangle cannot have a right angle.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

☐ 3 marks

- 4 Circle the quadrilateral described by the sentences.

- The sides of the shape are not all equal in length.
- It has no right angles.
- It has two pairs of parallel lines.



Write the name of the quadrilateral you have circled.

Parallelogram

Write down the name of the quadrilateral with exactly two lines of symmetry.

Rectangle

☐ 1 mark

☐ 1 mark

☐ 1 mark

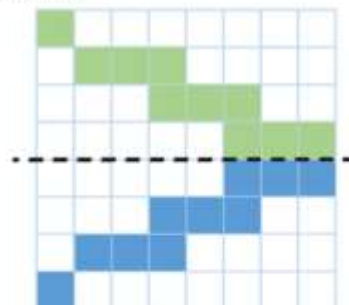
- 5 Draw a line of symmetry on each shape.

Award 1 mark for 2 correct shapes.



☐ 2 marks

- 6 Complete the pattern according to the line of symmetry.




☐ 2 marks

Circle how confident you feel with properties of shapes.


1 2 3 4 5  
Not confident Very confident

English  
Lesson 1

<b>LI: To Determine</b> what are facts and opinions.	<div data-bbox="1193 1294 1342 1373"> <b>FACT OR OPINION?</b> </div> 
<b>STS:</b> <ul style="list-style-type: none"> <li>• <b>Determine</b> the difference between fact and opinions.</li> <li>• <b>Decide</b> what statements are facts or opinions.</li> <li>• <b>Generate</b> our own facts and opinions on a topic.</li> </ul>	

1. What is an opinion? What is a fact?
2. Generate 5 opinions on something you like and say why:  
For example: The movie Frozen is the best movie in the world!
3. Generate 5 interesting facts on something you like:  
For example: Tigers have striped skin, not just striped fur.

Lesson 2

<p><b>LI: To <b>research</b> information for a non-chronological report.</b></p> <p><b>Context - Gorillas</b></p>	
<p><b>STS:</b></p> <ul style="list-style-type: none"> <li>• <b>Recap</b> the features of a non-chronological report</li> <li>• <b>Research</b> relevant information using <b>lpads</b>.</li> <li>• <b>Record</b> key information as bullet points under sub-headings.</li> </ul>	


1. Go to the following website link:

<https://www.worldwildlife.org/species/mountain-gorilla#:~:text=As%20their%20name%20implies%2C%20mountain,temperatures%20often%20drop%20below%20freezing.>

Research information (facts and statistics) about the following sub-headings:

- **General information (population etc).**
- **Behaviour**
- **Habitat**
- **Diet**
- **How can people help?**
- **Interesting/fun facts**

### **Lesson 3**

<p><b>LI: To <b>plan</b> for a non-chronological report</b></p> <p><b>Context: Gorillas</b></p>	
<p><b>STS:</b></p> <ul style="list-style-type: none"> <li>• <b>Identify</b> appropriate vocabulary for our reports.</li> <li>• <b>Select</b> appropriate synonyms to improve our writing.</li> <li>• <b>Plan</b> the layout of the non-chronological report.</li> </ul>	

Today you will plan your non-chronological reports:

Look at the following non-chronological report:

## Gorillas

Gorillas live in the high mountains of Rwanda, Central Africa. They travel in packs of 30 or less. They are an endangered species. Just like humans gorillas have 10 fingers and 10 toes, forward looking eyes enormous nostrils. They are very intelligent animals and have clever ways of finding food. They live 40-50 years. They are our closest relatives.



### Diet

Gorillas eat lots of different foods, such as leaves, vines, bamboo, plant shoots, stinging nettles and tree bark. They also eat small insects and termites. Gorillas get sufficient water from the plants they eat.



### Description

Gorillas have 2 arms and legs, small ears on the side of their head. They are black, but the elder male has a silver back. They have sharp teeth and have longer hairs and shorter arms. The elder male has a silver back when he turns 14-15 years of age.

### Habitat

Gorillas live in the dense forests high up in the mountains, about 10,000 feet up. It is cloudy, misty and cold up in the mountains. Gorillas are the rulers of the forests.

### Behaviour

They nest in trees and groom each other. They play with each other and sometimes the males wrestle for fun. Gorillas cause trouble unless they feel threatened. The silver back leads the pack, finds food and looking after his family. They walk flat footed, using their knuckles as pads. Sometimes they use their chest to beat a drum. They communicate by using gestures, body posture and many more.

Lay out your non-chronological report and bullet-point relevant information underneath. You can also draw or print a picture if you wish!

## Global – Lesson 1

### L1: To express and justify an opinion

#### Context: Animal welfare

#### STS:

- To understand the impact of key historical events on animal welfare
- To research different types of animal farming and their effect on the welfare of animals
- To reflect on how we can improve the welfare of farm animals

**Key Vocabulary:   Animal rights   welfare   free range   organic   humane**

Today, you will research animal welfare and what impact the Animal Welfare Act (2006) and animal rights movement has had on animal welfare.

Look at the following farming methods and reflect on the following questions:

What factors are important for an animal's wellbeing?

What are the effects of the different farming methods on animals?

What can be done to protect their welfare?

#### **Animal welfare:**

Welfare generally refers to “the quality of an animal's life as it is experienced by an individual animal”. Welfare includes not only the health and physical wellbeing of the animal, but the animal's psychological wellbeing and the ability to express its own important behaviour. Welfare can be described as high if the animals are fit and healthy, feeling good and free from suffering.

#### **The welfare Act (2006)**

The **welfare** of all farmed **animals** is protected by the **Animal Welfare Act 2006** which makes it an offence to cause unnecessary suffering to any **animal**. The **Act** also contains a duty of care to **animals** - anyone responsible for an **animal** must take reasonable steps to make sure the **animal's welfare** needs are met.

Animal-rights activists had changed the way many people view animals. They had convinced many people not to eat meat. They even convinced some large companies to stop experimenting on animals. Scientists have come up with new ways to test products, and schools can now use computer programs to teach students about the insides of animals.

#### **Fish farming:**



- Fishing is one of the oldest forms of hunting. For thousands of years we have fished freely from our lakes, rivers and seas. But overfishing in the 20th and 21st centuries means we are in danger of catching fish at a faster rate than they can reproduce.
- New rules have been agreed internationally to control how much we fish.
- Future fish stocks could be in danger if we do not follow these rules.

Provides jobs in rural and coastal communities.	Damages the seabed under the nets due to excrement and waste from the fish.	Allows for more fish, molluscs, crustaceans, shellfish and seaweed to be grown.
Produces fish which can be sold all over the world.	Increases availability of Atlantic salmon and rainbow trout.	Helps the economy by providing jobs and trade exports.
The welfare of the fish is not well regulated.	Reduces cost to the consumer making fish an accessible food.	Chemicals are used to help the fish grow.
Fish can be kept in overcrowded nets.	Diseases and lice amongst fish spread quickly.	Takes up large amounts of space in Scottish sea lochs.

### **Factory farming:**



- Intensive farming methods, where farmers try to maximise the amount of food they can produce, have had an impact on the way farm animals are raised.
- Farming poultry, especially chickens, grew rapidly in the second half of the 20th century. Once an expensive treat, chickens are now cheap to buy.
- To produce cheaper meat, animals are often raised in 'factory' conditions in vast indoor sheds. Many people are concerned about the conditions animals are reared in to produce meat.

### **Free range farming:**



**Free range** denotes a method of farming husbandry where the animals, for at least part of the day, can roam freely outdoors, rather than being confined in an enclosure for 24 hours each day. On many farms, the outdoors ranging area is fenced, thereby technically making this an enclosure, however, free range systems usually offer the opportunity for the extensive locomotion and sunlight that is otherwise prevented by indoor housing systems. Free range may apply to meat, eggs or dairy farming.

Reflection:

How can you improve the welfare of farm animals?

*In my opinion, to improve the welfare of animals you can . . .*

## Lesson 2

### LI: To express and justify an opinion

Context: Animal welfare debate

#### STS:

- To recap the benefits and disadvantages of different types of animal farming
- To engage in class debate
- To justify an opinion using evidence from research

Today, you will use the cognitive strand of the Oracy Framework to form an opinion about the benefits and disadvantages of animal factory farming.

Use the persuasive sentence openers and facts from the previous lesson to justify your opinion. Share your thoughts with someone at home. Do they agree or disagree with you?



### Cognitive

#### Content

- Choice of content to convey meaning & intention
- Building on view of others

#### Structure

- Structure & organisation of talk

#### Clarifying & Summarising

- Seeking information & clarification through questioning
- Summarising

#### Self Regulation

- Maintaining focus on task
- Time management

#### Reasoning

- Giving reasons to support views
- Critically examining ideas & views expressed

#### Persuasive sentence openers:

In my opinion...  
I think that...  
Furthermore...  
Additionally...  
However...  
For instance...  
An example is...  
On the whole...  
...

#### Key vocabulary:

Animal welfare  
Humane  
Free-range  
Battery farming  
Intensive farming

### Reflection:

**What is a top tip for helping consumers make informed choices about farm animal produce?**

*In my opinion, consumers can make informed choices about farm animal produce by . . .*

## Science

**LI: To carry out a scientific experiment.**

**STS:**

- **Explore** and **discuss** existing devices used.
- **Plan** and **solve** a problem on the spot using recycled items.
- **Critically analyse** our own and others work.
- **Apply** feedback and **refine** creations.



Today we will be creating a self watering device. Before you start, have a think about what devices are already out there. Once you have done that, you will become a problem solver using the 5 step activity plan below.

### 5 step activity



**You will need:**

Building materials such as yoghurt pots, plastic bottles etc, as well as tape and glue; several large plant pots, compost and plants.

1.

This hands-on making activity will put your knowledge to the test and improve your communication skills.

Sometimes you have to solve a problem on the spot. Today you will need to make something using just the materials listed. ***What do you think you might learn from doing this?***

2.

You have 15 minutes to create a device to allow a plant to get water itself.

3.

At the end, it's peer review time. Ask your adult or siblings to assess your device and give you feedback on how you can improve it.

4.

Allow five more minutes to act on your feedback by refining your creation.

5.

When time is up, take a look at your final creation. **What have you learned from this activity?**

**Reflection:**

Did you face any challenges during this activity? How did you overcome them?



*During this activity, I faced the challenge... I was able to overcome this in my team when...*

**RE**

**LI:** To **demonstrate** acts which **protect** and **care** for **living things**.

**Context:** **Humanism**

**STS:**

- To understand that not everyone has the same beliefs.
- Discuss humanism and their beliefs.
- To apply skills to activities that have a positive impact on the environment.



**Who are humanists?**

Humanists do not believe in a god. They believe it is possible to live a good and fulfilling life without following a traditional religion.

They do not follow a holy book either. Instead, Humanists value traits like reason and rely on science to explain the way things are.

Humanists believe that people have one life to live - there is no afterlife. As a result they focus on being happy and making the most of their life. They also believe they have a duty to support others.



**Activity 1=** Poster making, asking parents not to park outside of the school.

**Use these examples to help you.**

**Activity 2=** Create origami using only scrap paper.



Why is it better to use scrap paper instead of fresh paper where we can?



How else can we make use of scrap paper?

Find your favourite origami online to follow. Use scrap paper for this activity.

**Activity 3=** Using any recycled items, create a bird feeder for our nature garden.



What effect are we having on our environment by creating a DIY bird feeder?



Once you have completed your bird feeder, fill it with bird seeds and place it outside.

Art

LI: To create [observational](#) art in the [style](#) of an artist.

This week, we will be drawing the outline of our final outcome. Our final outcome will be a drawing of a gorilla and look similar to this:



Before we can get here, we need to draw the outlines of our gorilla and then for our next session we will add more detail using charcoal and white chalk. Select one of the following images to recreate and then draw the outline and sections of the face using a pencil.







**ENSURE YOU TAKE YOUR TIME TO ACHIEVE THE HIGHEST QUALITY**

*How can we use previous lessons to help us achieve our final outcome?*