



A6 TERM 1 INQUIRY

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BIG IDEA: Forest in a box inquiry

Lines of inquiry: Science, Literacy, Numeracy, Art

- Explore the forest in a box
- Look at living things
- Link to science- adaptations to extreme weather conditions

Key Questions:

- What is this? (tubs in the middle of the room)
- What could it be used for?
- Is it a manmade or natural object?
- What are we going to do with this?

Student interest:

- Building
- Animals
- Designing
- Outdoors
- Art- clay

Prior knowledge:

- Living things activity
- Brainstorm (first lesson)

Hook: Forest in a box

- Students saw the boxes and were extremely excited to see what was in them.

Lesson 1

Lesson title: Inquiry

Provocation- Tubs with parts out of each of the kits.

No planning required due to waiting for students to generate their own ideas about the provocation.

I sat the 4 tubs in the middle of the room.

Instructions: brainstorm what our provocation is as a group.

Students responded with this:

Jemma: Looks like road works

Lukas: a building of some sort

Ewan: gears and stuff

Cody: theme parks and shows

Jemma: tree works

Ewan: water slide

Lukas: Looks like you might have to put it together

Jemma: wooden objects

Jye: wood stuff connecting

Molly: is the wood plastic?

Jemma: why are we using these objects?

Brady: It says Tasmanian Oak on it, so its wood not plastic

Cody: looks like train tracks

Jemma: Why are there 4 of them?

Kyesha: a bit like a puzzle

Is it man made or a natural object:

Ewan: Yes and no- because its wood from a tree and its carved into a manmade object

Cody: they have pressed thin bits of wood together to get the shapes, using stencils

Brilee: It was once a natural object but now people have mucked around with it and made it into shapes

Jemma: Why is it in these shapes?

Molly: Why is there green wood in there?

Jemma: What is it used for?

What are we going to do with this?

Samara: put it together to see what it makes?

Molly: Stare at it and build up the temptation to touch it

Jye: were going to put all the wood stuff together to build bigger wood stuff

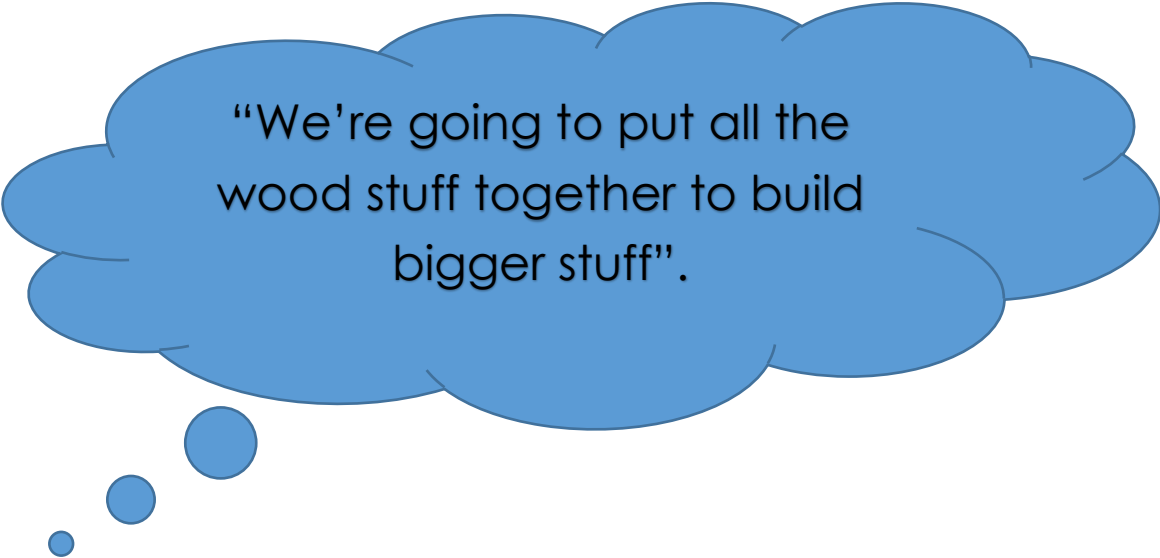
Ewan: we should take all the pieces out and sort them into groups to see how many we have.

Cody: have you got instructions?

Lesson end: We then left the conversation after we worked out what we were going to do with our provocation.

We picked Jye's comment

"We're going to put all the wood stuff together to build bigger stuff".



"We're going to put all the wood stuff together to build bigger stuff".

Lesson 2

<u>Group 1</u>	<u>Group 2</u>
Lukas Ewan	Brodie Cody
Molly Finn	Isabelle Samara
Cameron	Charlie Bailey
<u>Group 3</u>	<u>Group 4</u>
Jye Brady	Billy Thomas
Holli Coby	Archie Kyesha
Brilee Saila	Jemma Latoyah

Lesson title: Exploring the provocation

Lesson begin: Inquiry groups.

EXPLORING STAGE.

This part of the inquiry is to let the students explore the provocation. They get an opportunity to create and build with what they have.

I sat the 4 tubs in front of each of the groups. My instructions were to "make something".





As soon as they saw the tubs with the Forest in a Box materials in them they wanted to touch!

Most of the students responded with 'What? There aren't any instructions.

I responded to the students that they need to BRAINSTORM, PLAN, MAKE and then state if their plan changed.

The planning sheets that the students generated.

BLUE

Plan

we plan to make a reindeer

Picture / things we need



PINK

Plan

we are going to build
a boat

PLAN

We are making a treehouse

Plan

We are building a bridge!



The descriptions each group had:

BLUE

Description

We have made a windmill.
We used bigger blocks to
support it.
We made a handle out of the
thicker poles.

PINK

Description

a boat with a slide
stairs
a ramp (tree ramps)

ORANGE

description (warning you may die
at this amusement park)

- An amusement park
- Waterslide
- Swing

Billy Gemma Thomas B Ky 92 NA

Description!

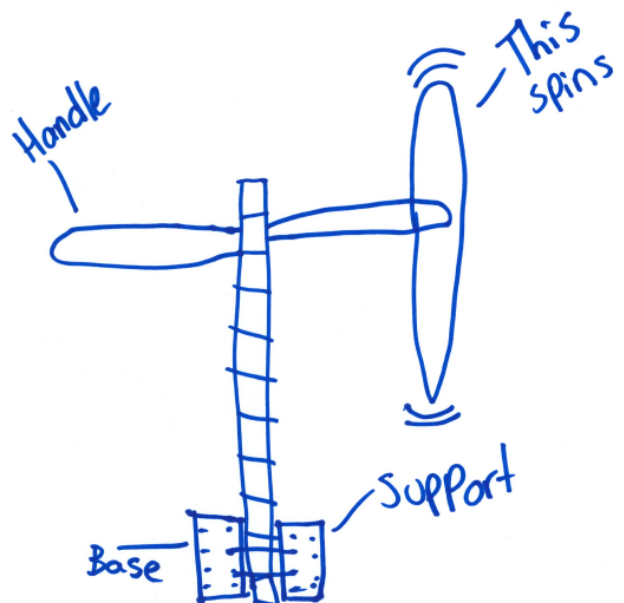
We changed our desine to be a ball Slide Were you Climb up stairs to through a ball down a slide and see if you can get the ball in a hole, And get as many points as you can! / Beat your high Score!

The creations (END PRODUCTS) from the students. A boat, theme park, windmill and a bridge.

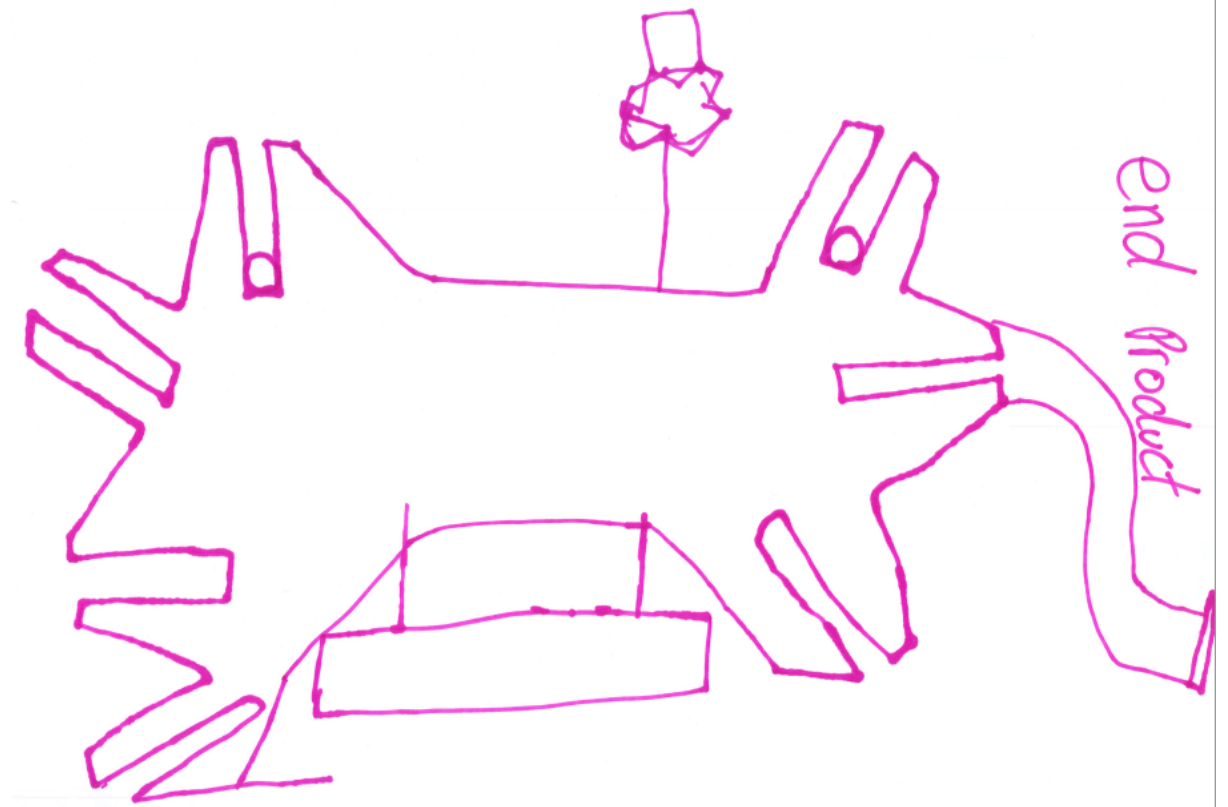
BLUE

END PRODUCT

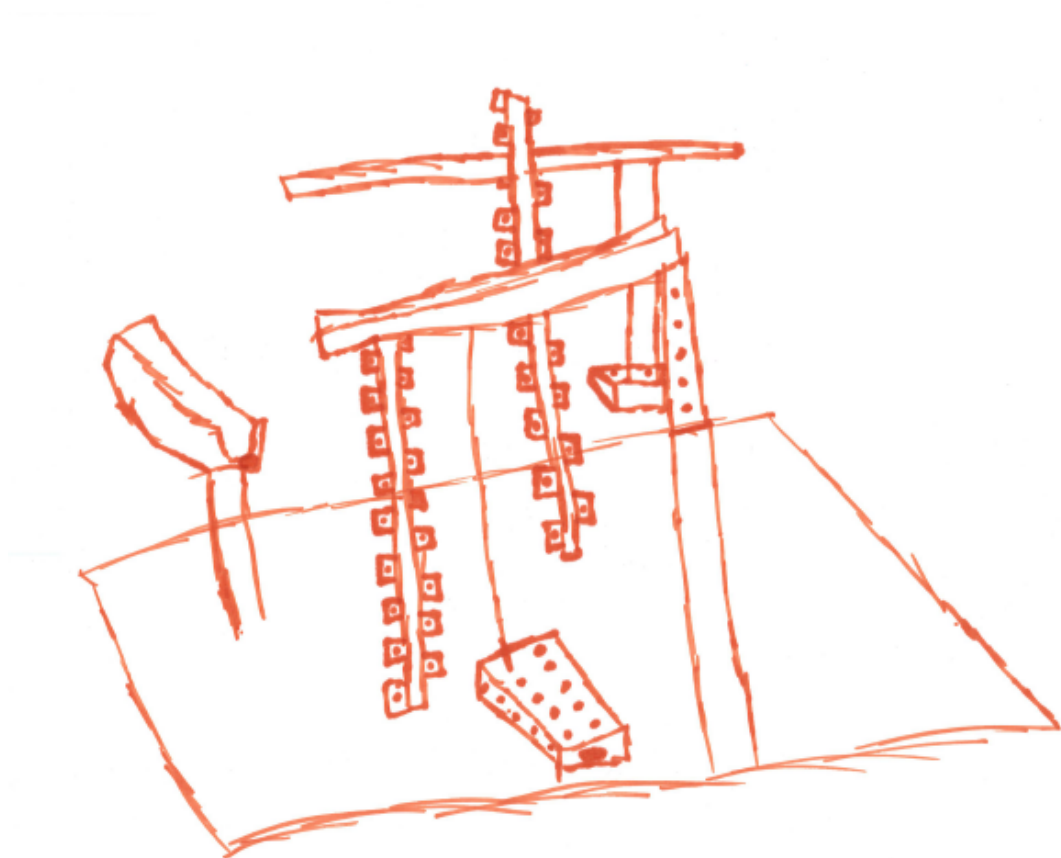
(We changed from a reindeer to a windmill)



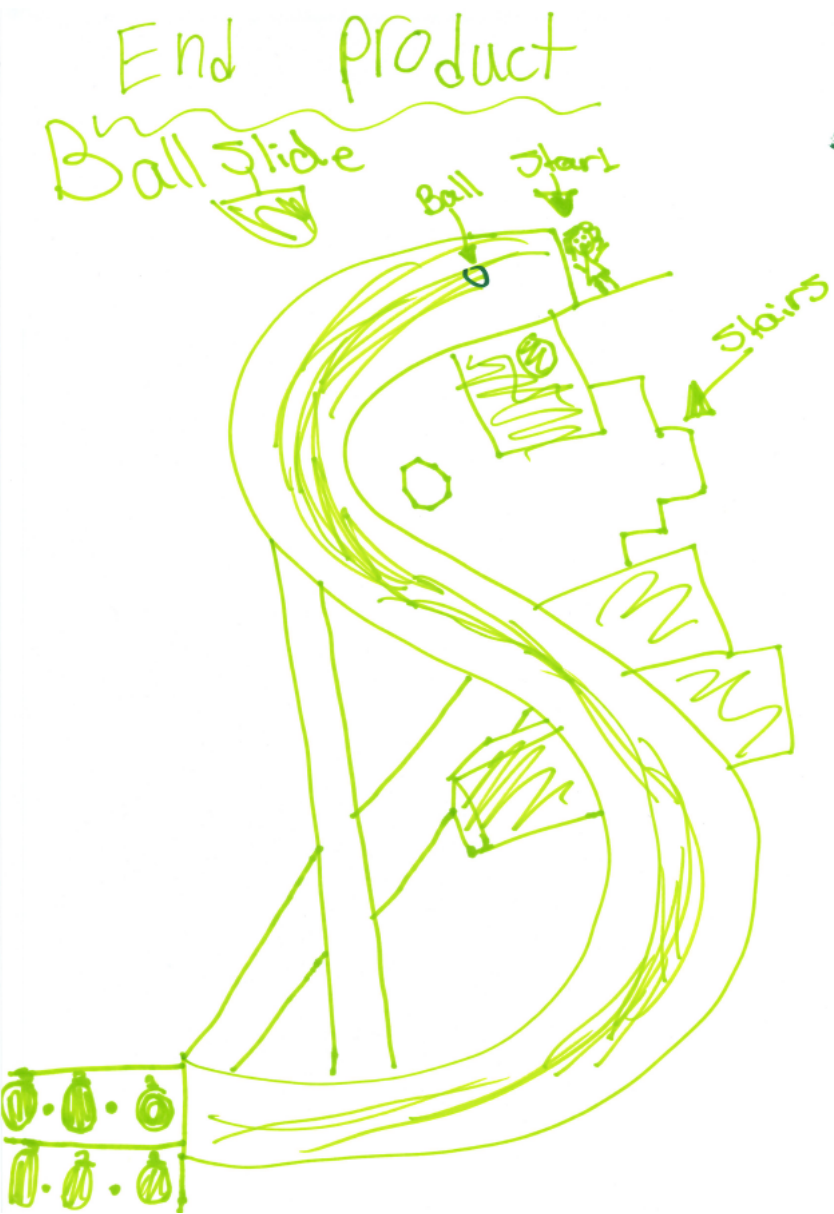
PINK



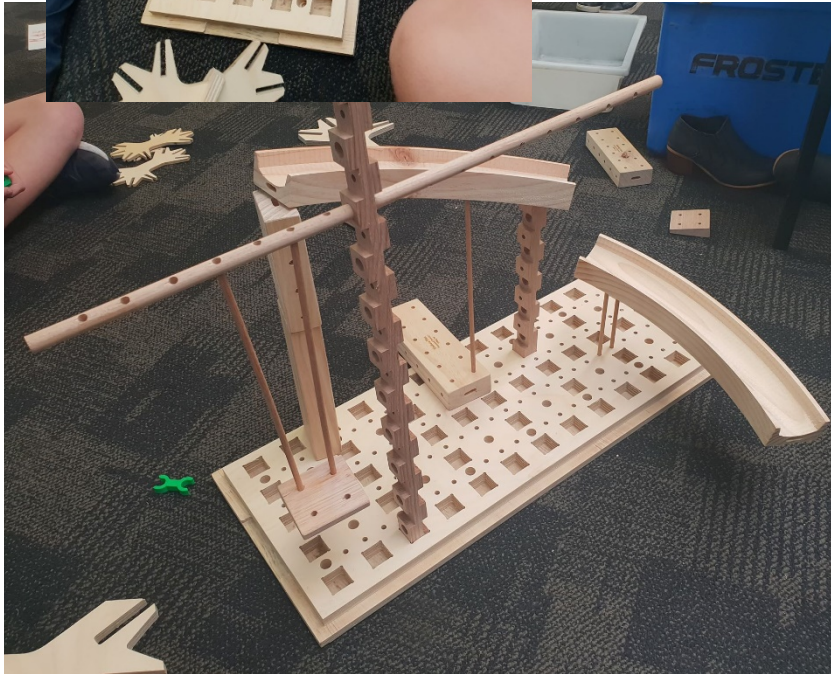
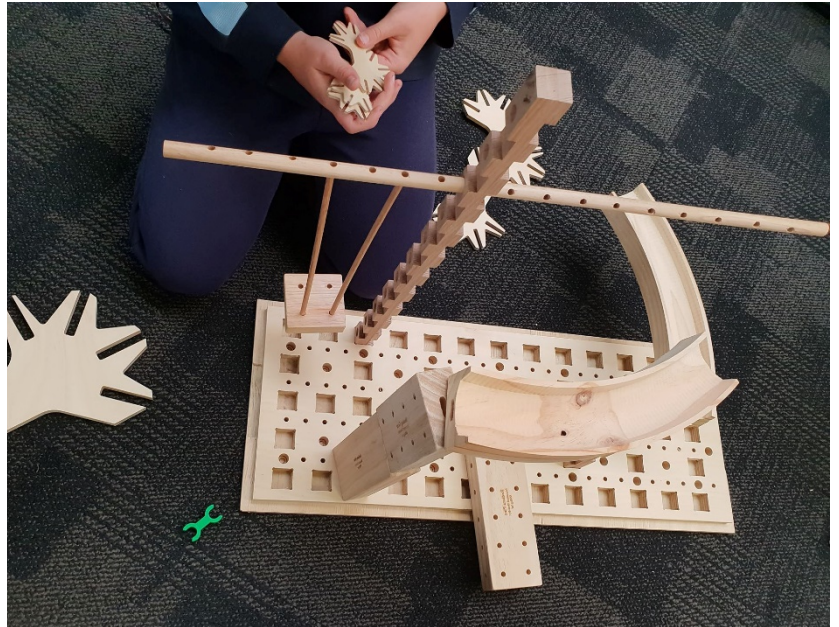
ORANGE

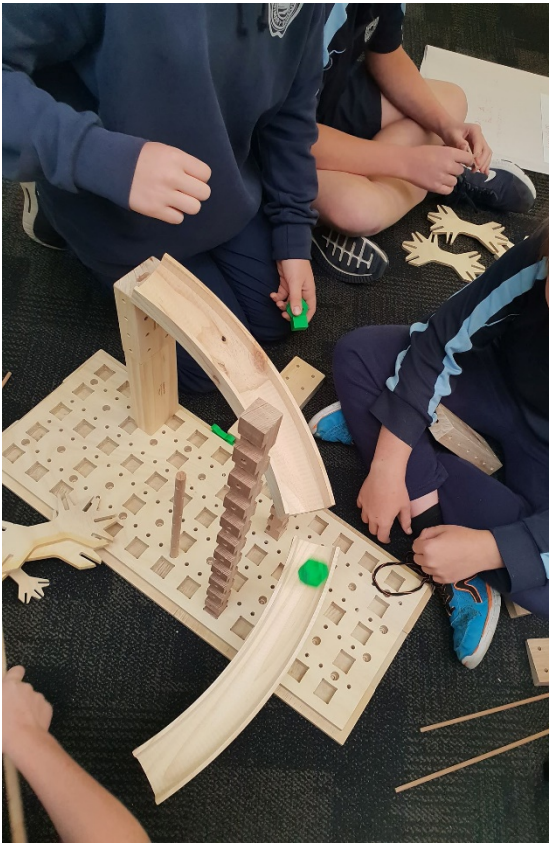


GREEN:

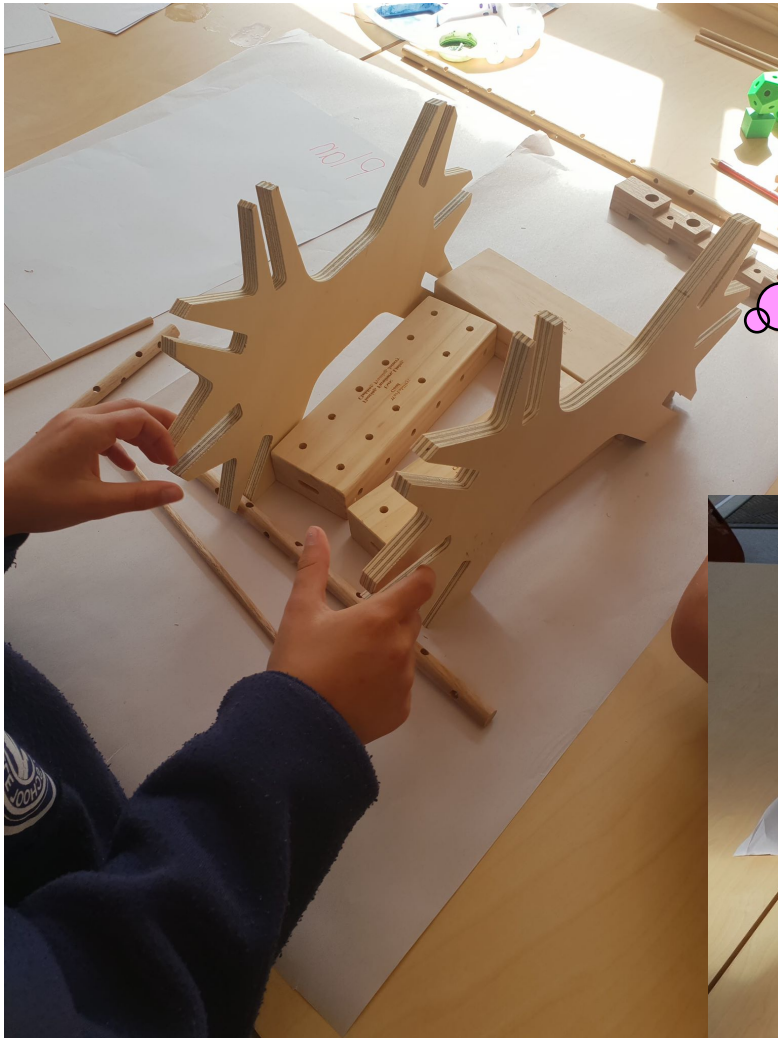


ORANGE:

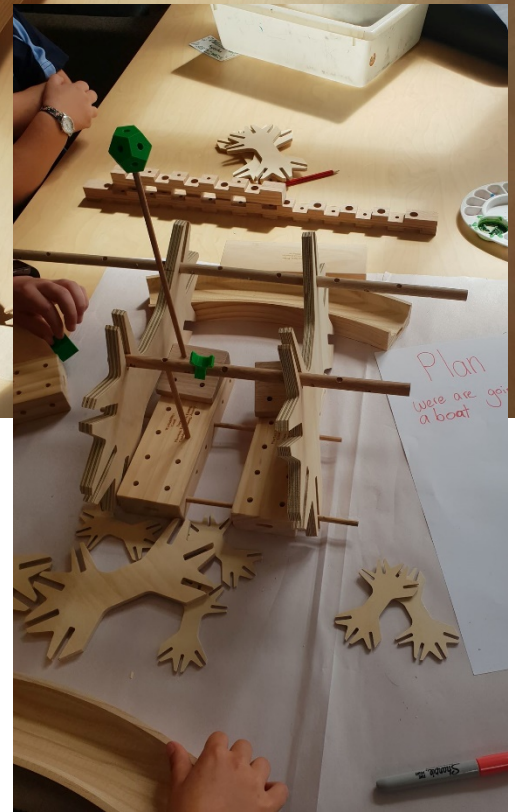
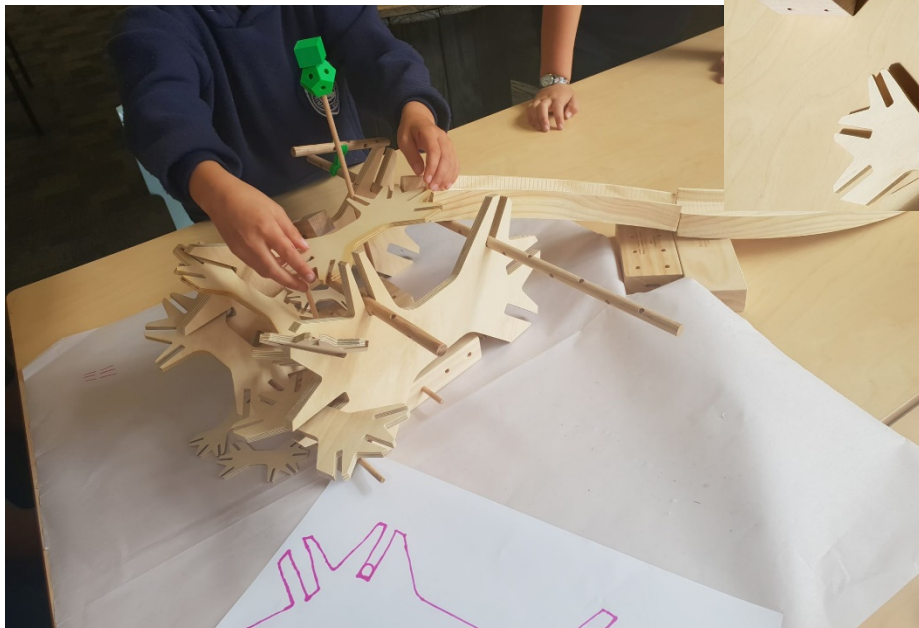




PINK:



We created
a boat!

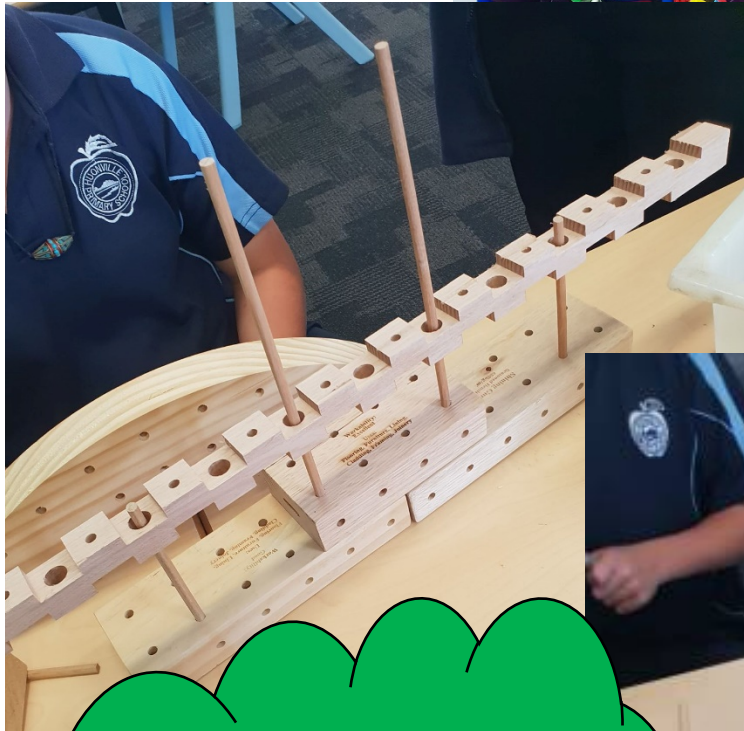


BLUE

We created a windmill!



GREEN



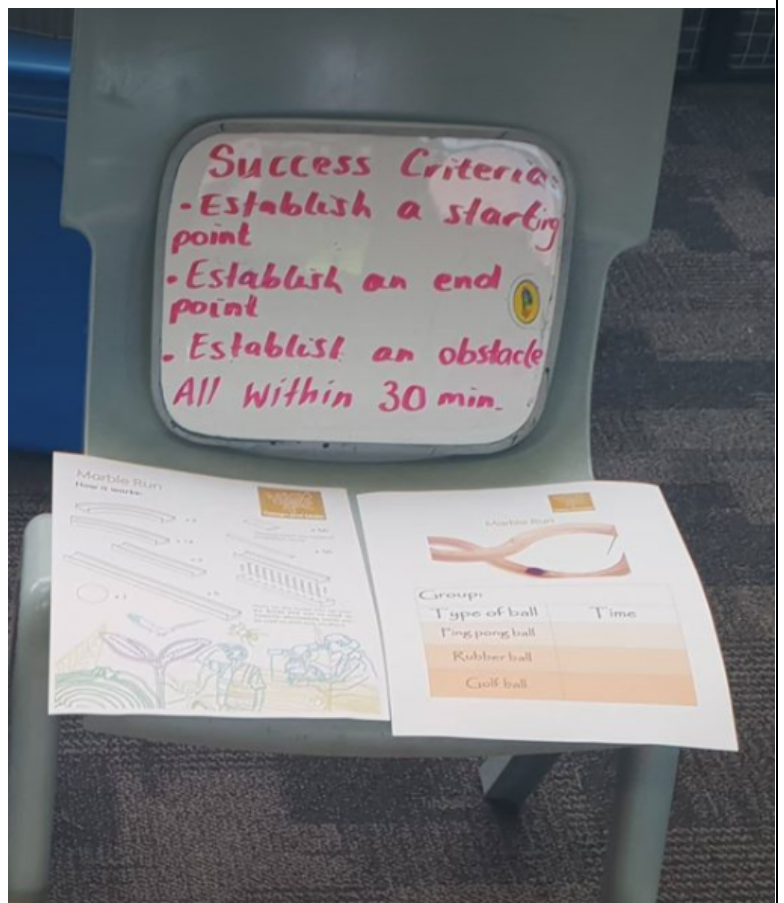
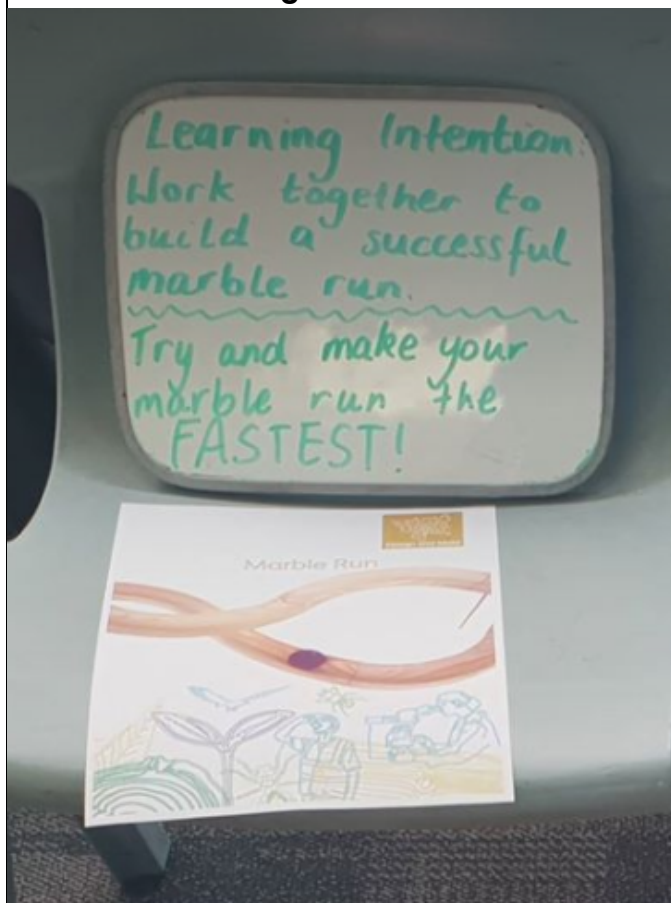
We started making a bridge and then decided to make a slide instead!

Lesson 3

Lesson title: MARBLE RUN

Learning Intention

Success Criteria



The aim of these rotations were for the students to explore the marble run. I gave the students a copy of the pieces and just said go for it, make a marble run. I ensured that the students had a starting point, obstacle and end point.

Marble Run



Group: Blue

Type of ball	Time
Ping pong ball	1. 6.03 2. DNF 3. 5.08
Rubber ball	1. DNF 2. 4.67 3. 5.44
Golf ball	1. DNF 2. 4.33 3. DNF



Some of the attempts did not finish. That was due to the bend in the marble run. Students made some changes to the run and most of the attempts worked. They came to the conclusion that the golf ball was the fastest due to its weight.



Marble Run



Group: Orange

Type of ball	Time
Ping pong ball	1. DNF 2. DNF 3. DNF
Rubber ball	1. DNF 2. DNF 3. DNF
Golf ball	1. DNF 2. DNF 3. DNF

Didn't alter their design after getting prompts to maybe fix the bend in their design. Students just kept attempting the balls even though it was running off the end of the long straight. They came to the conclusion that the balls were getting too much speed at the start.

Pieces left: 8

Didn't alter





Marble Run



Group: Pink	
Type of ball	Time
Ping pong ball	① 4.59 ③ DNF ② DNF
Rubber ball	1. DNF 2. DNF 3. 5.1
Golf ball	1. 3.60 2. DNF 3. DNF

Student didn't alter their design. They were happy with 1 successful run of each type of ball. They came to the conclusion that the golf ball was the fastest due to its weight.

Marble Run



Group: Green

Type of ball	Time
Ping pong ball	1. 5.16 2. 5.37 3. 4.74 * Didn't alter
Rubber ball	1. 4.60 2. DNF 3. DNF * Didn't alter
Golf ball	1. 5.42 2. 8.94 - lifted ramp 3. Stopped - DNF

Students didn't alter the marble run with the ping pong and golf ball.

Students decided to alter the marble run when using the golf ball. Their alterations didn't help the speed of the ball.



Marble Run



Group: Archie Coby	
Type of ball	Time
Ping pong ball	1. DNF 2. 11.3 3. D.N.F
Rubber ball	1. 11.23 — DNF 2. 11.46 — - moved book 3. 12.9
Golf ball	1. DNF 2. 10.03 3. 11.81

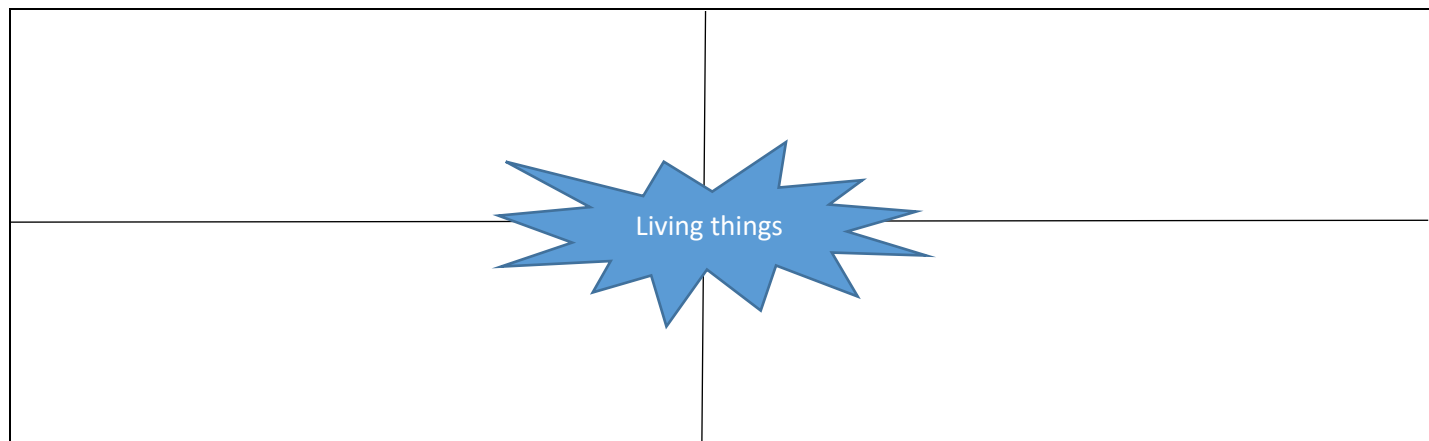
} Similar weight

Used

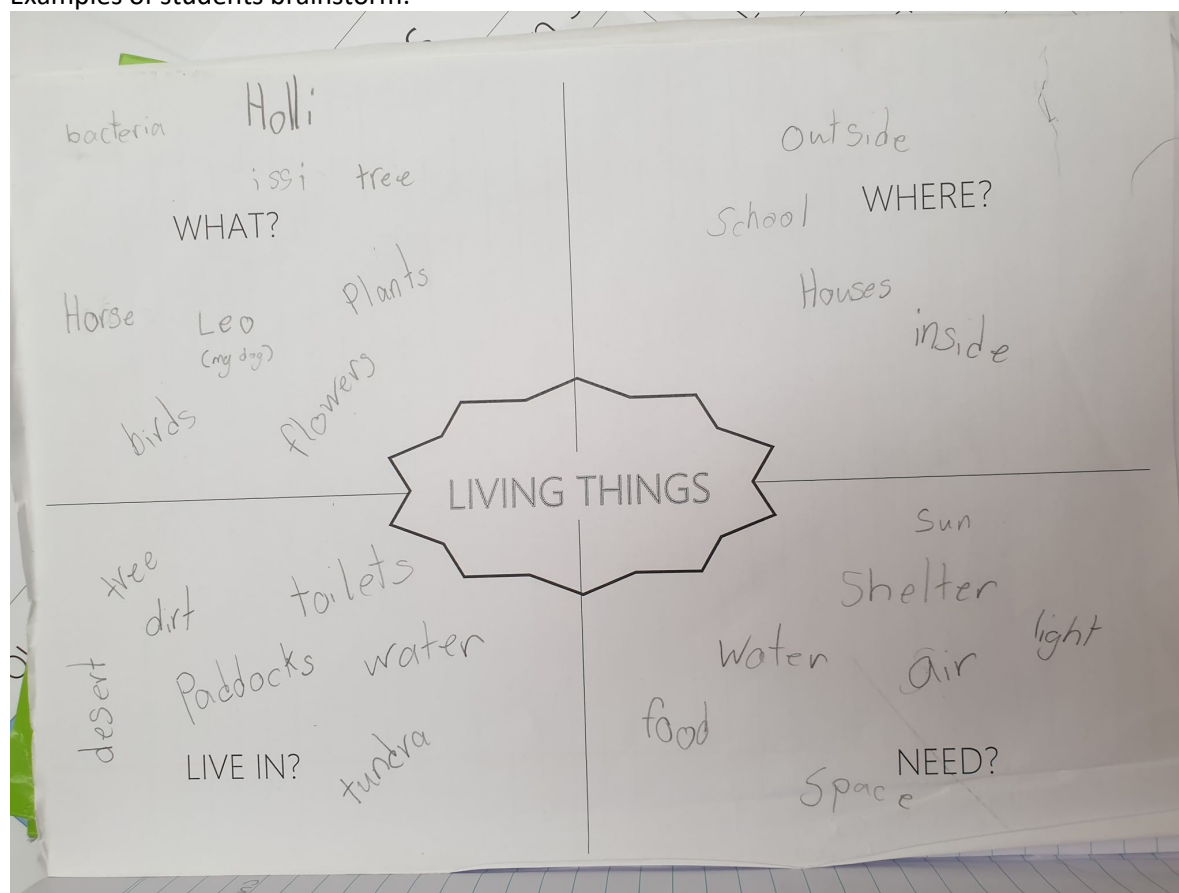
Lesson 4

Lesson title: UNDERSTANDING LIVING THINGS

Brainstorming place mat- What is a living thing?



Examples of students brainstorm:





Lesson 5

Lesson title: Adaptations

Students were required to research what an adaptation was, the three different types of adaptations and then give 2 examples of adaptations.

find in the ... pieces.

Adaptations *

1. What is an adaptation?

An adaptation is something about an animal that makes it possible for it to live in a particular place and in a particular way.

2. Define Structural animal adaptations:

Physical feature of a living thing to enable them to survive in their environment.

Example: A penguin has blubber to protect itself from freezing temperatures.

3. Define behavioural animal adaptations:

Actions of a living thing that enable them to survive in their environment. Example: Bears hibernate in winter to escape the cold.

4. Define physiological animal adaptations:

Internal and/or cellular features of a living thing that enables them to survive. Example: A snake produces venom to scare off predators.

5. Give 2 examples of animal adaptations:

Pony: Ponies scare away predators by kicking up their back legs.

Dog: Dogs have warm fur to keep them warm.

ADAPTATION

1. What is an adaptation?

It is where an animal is forced to change to survive.

2. Define structural animal adaptations:

Physical feature of a living thing to enable them to survive in their environment.

Examp: A penguin has blubber to protect itself from freezing temperatures

3. Define behavioural animal adaptations:

Actions of a living thing that enable them to survive in their environment. Example: Bears

4. Define physical animal adaptations:

Internal and/or cellular features of a living thing that enables them to survive.

Example: a snake produces venom to scare off predators.

5. Give 2 examples of animal adaptations

- Camouflaging

- Poison

Lesson 6

Lesson title: Exploring building a bridge and making a hotel

EXPLORING THE BLOCKS FOR A PURPOSE

The purpose of this lesson was for the students to explore habitats and how to make habitat.

Both activities didn't have a 'challenge' or plan that students had to follow. The only rule for building the bridge was that it had to hold 5kgs.

The purpose of this rule was so that the students began to think about how they can support their bridge so that it is structurally strong. This was so that when we had our proper challenge the students already had ideas in their mind of how to support the bridges.

The bridge challenge was very easy, students had all of the blocks to use and the tables were only 20cm apart. This meant that the students could use the two long blocks to connect to both tables without having to use any other supports.



Blocks Challenge



Species Hotel



Photos of the 4 habitats that were created:



Photos of the 4 bridges that were created:



Lesson 7

Lesson title: Create a creature

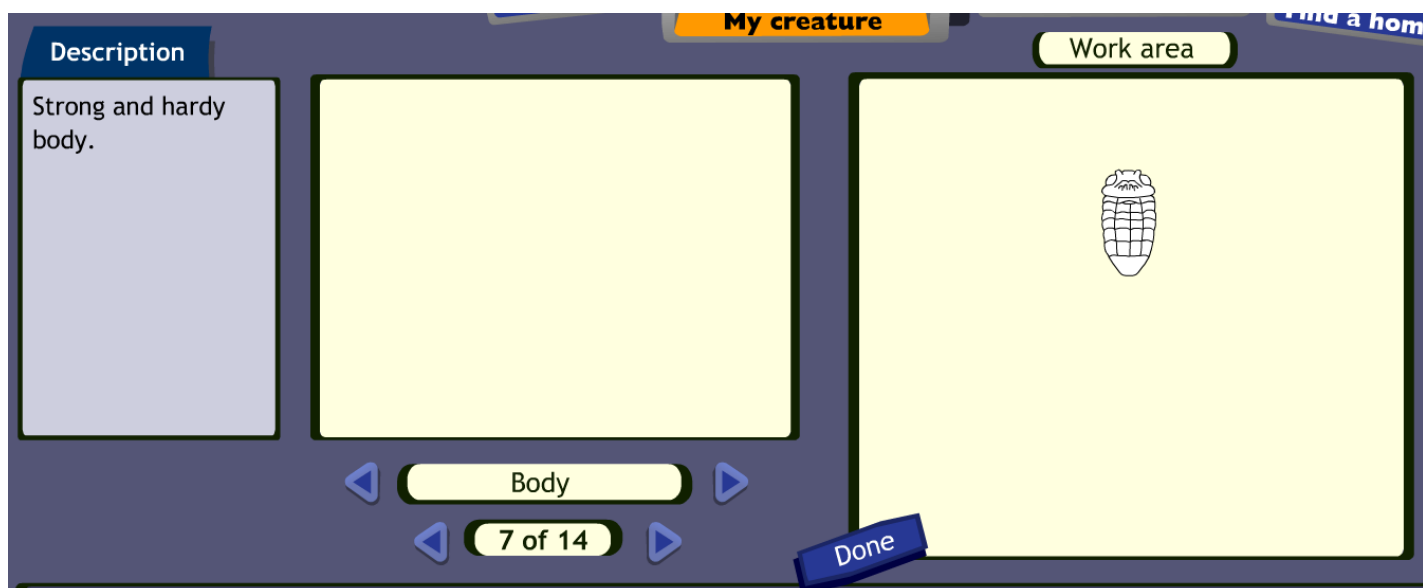
Students went on to the website:

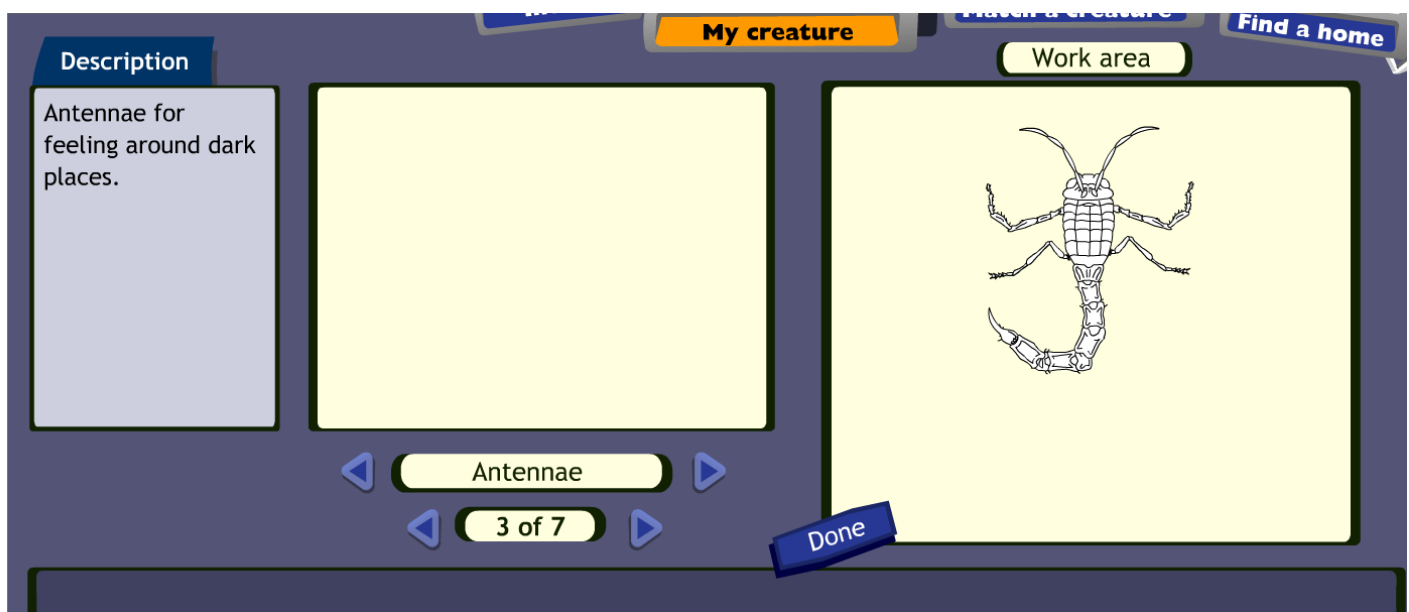
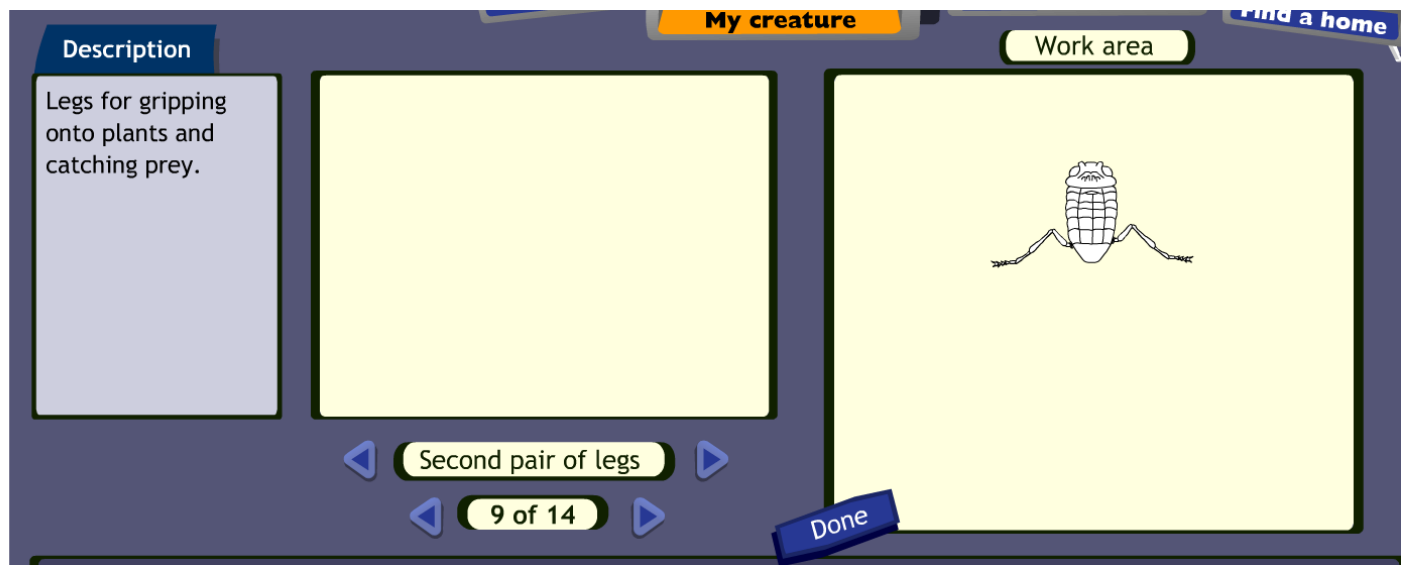
<http://www.scootle.edu.au/ec/viewing/L755/index.html>

The website gives them options of picking body parts of their creature.

Each body part has a description.

Students wrote the body part description in their science book to ensure that they remembered the details of each part.





Students were to tailor the parts to suit what sort of creature they wanted to create. They needed to keep in mind what body parts they picked for when they will write their mock information reports on their creature.

Students were required to think of the habitat that their creature was to live in. They also needed to think of the food their creature eats and what do they do. It needed to be realistic.

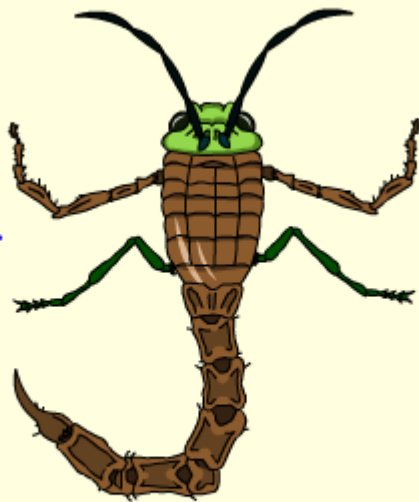
What is the name of your creature?

Where does your creature live?

How big is your creature?

What does your creature eat?

What does your creature do?



Examples of students creatures and descriptions written in their books:

DEATH BEETLE

Archie

What is the name of your creature?	DEATH BEETLE
Where does your creature live?	In the Desert
How big is your creature?	25cm to 75 cm
What does your creature eat?	Any smaller insects
What does your creature do?	Digs in the sand so that it can stay cool and not overheat.



Head

Strong head and jaws for carrying or pulling heavy objects.

Body

Heavily armoured, flattened body for self-defence and for getting into small cracks.

Front Legs

Legs for steady crawling.

Second Pair of
Legs

Legs for steady crawling.

Back Legs

Legs for gripping onto any surface.

Lesson 8

Lesson title: information report

Students were to write an information report on their creature.

This was a tricky task due to information reports being factual pieces of writing and our creatures being made up and created by the students themselves.

The challenge was to create what looked like and was formatted like an information report but have the information mostly made up because it is about the made up creature.

Students were to make it factual through the scientific information and facts that they inserted into their texts.

For example where the creature lived, what real life insects it crossed between etc.

Here is the sample format given to students.

Title

Introduction

Background information

Type of animal

Length of life.

Characteristics

Looks like?

Physical appearance- features

Height, weight, length

Colour

Hair

Diet and habitat

Eat?

What does it eat, how often and how much.

Where?

What does it do during the day?

Adaptations

Colour, physical structure and body markings

How does the physical appearance help it survive?

Jaw dropping facts

Enemies? Who are they? Is your animal and enemy

Unique characteristics

Conclusion

INFORMATION REPORT- POPPY

Introduction:

My insect is called Poppy. She has a stinger, wings and two back legs for gripping large objects. Poppy lives in grasslands all over the world. She lives up high in tree burrows.

Background information:

Poppy is an insect, Odonata (dragonfly) crossed with a Mecoptera (scorpionfly). Poppy will live up to 10 years and she fly's, stings and hunts.

Characteristics:

Poppy has a scorpion like stinger and long skinny wings. Her main body is red but the rest of her body, like her wings, her stinger, her legs and her head is mostly brown.

Diet and habitat:



TRENT

Introduction

The Trent creature it is a flying predator that eat every creature in the jungle and in caves all around the world. It kills it has a brown head, blue body yellow wings and brown back legs. You can find the Trent in the jungle and in caves.

Background information

The Trent creature is an insect and they are arthropods which means it has a hard external skeleton. The insect classification is between an odonatan and atymenoptera. The Trent creature lives for 5 years on average.

Characteristics

This creature can rip a person head off and the stinger instantly kill any think and then the stinger cant sting Trent so any think he kills with it then it eats it with it's thangs and it's head jaws are strong. Long body built for flying. 2 piers of wings. 2 front and back legs. 2 pinches used to bite and tier. Antennae for feeling around dark spaces.

Diet and habitat

1 km every 4 hours. It only eats things smaller than it. It lives in the jungle and caves. It kills things during the day.

Adaption

The colour of Trent is blue brown blue and yellow. Structural adaptation; The Trent creature wings to enable it to fly away from its predator's behavioural adaptation; The Trent creatures it uses it's pinches to help it escape from its predator's physiological adaptation; The Trent creatures has two antenna to help it move around a feel it's surrounding when in dark places.

Jaws dropping facts

Trent's enemies are creatures that are bigger then him. They are creatures that are stronger than him.

INFORMATION REPORT- POPPY

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Background information:

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Characteristics:

Poppy has a scorpion like stinger and long skinny wings. Her main body is red but the rest of her body, like her wings, her stinger, her legs and her head is mostly brown.

Diet and habitat:

Poppy eats spiders and any other smaller creatures. They will sometimes feed on dead or dying insects, even insects caught on spider's webs. Poppy lives in the grasslands with her family. Poppy's stinger can kill creatures up to 4 times bigger than her. Her stinger is her most powerful feature. She can sting and sting as much as she wants without dying.

Adaptations:

Structural adaptation: Poppy has a stinger to protect herself from predators.

Behavioural adaptation: When Poppy gets angry she uses her stinger to defend herself.

Physiological adaptation: Poppy hides in the bush with her stinger sticking out, so if any predators try to get her they will get stung.

Law dropping facts:

The male and female insects of Poppy, all look the same. Only they can tell them apart. The stingers on Poppy can bend and swipe at their predators.

Conclusion:

You can find the Poppy insect all around the world in grasslands. You can find them in high trees, in their burrows they make themselves. They look similar to dragonflies, but they have a stinger that looks like a scorpion's tail.

Information report- Bridget

Introduction:

My insect is called Bridget, they have four legs and come in lots of different colours. The Bridget creature can be found in dry forests all around the world. You may find the Bridget creature in your garden, depending on where you live.

Background information:

My insect will live up to 5-10 years, my insect jumps, swims and eats sap from plants. The Bridget insect is an Orthoptera (grasshopper) crossed with an ant.

Characteristics:

The Bridget insect has yellow and brown front feet, it has a point head that is blue and red. its body is full green and its back legs are black.

Diet and habit:

The Bridget's many diet is sap from plants. It sucks out all of the sap out of plants and trees. They do eat small bugs such as spiders, fly's, ants and sometimes bees.

Adaptations:

The Bridget insect survives by eating sap from the plants which have vitamins in it. so it gets all its energy as soon as it eats.

Jaw dropping facts:

You can find them all over the world.

You can play with them and keep them as pets.

They do not need water because it has it in the sap.

Real life Grasshopper



Information report: Scock

Description: Its name is Scock it has one head, a small strong body, a spider's tail, two strong back legs built for climbing and pinchers to hold prey. It is an insect that is crossed between a wasp and a spider.

Information: The Scock insect lifts rocks with its pinchers to build a shelter.

Back round information: I believe will the Scock insect will live for 20 year.

Character: Scock is 1 meter long and wide. He has a hard/strong body, pinchers her to hold prey and legs built for climbing.

Diet/ habitat: Scock live in the desert and eats small insects and spiders. Duren the day Scock challenges other insect to tap dance and swimming contests.

Adaptations: Scock blends in with the sand and because of this adaptation he is able to seek up on prey, and hide from predictors.

Jaw droppings: its predictors are the Uncle Morton insect and the death crab.

Lesson 9

Lesson title: Clay creatures.

Students were to create our creatures with clay. We then added our clay creatures to our Science gallery. Each student has a section for their creature.





SAMARA

Create a creature

What is the name of your creature?
Where does your creature live?
How big is your creature?
What does your creature eat?
What does your creature do?

anti-poo bug
in the forest near the forest
1cm
small (about as big as a spider)
fly, crawl, dig and walk



Information report - The Anti Poo Bug

Introduction

My friend is called the Anti Poo Bug. It lives in the forest near the forest and he looks all over the place. The Anti Poo Bug has a brown body, long wings and brown legs.

Characteristics

It looks like a fly with long antennae. It is 1cm tall, weighs nothing, it is a black head and body brown antennae and a brown green wings, with a bit of yellow.

Diet and habits

It eats things, spiders and worms and it eats when it feels like eating. It lives in a tropical forest, toward close to the forest & fly's every day.

Adaptation

It does not have any body markings, even though it has long antennae. It has a body, legs and antennae. It has long antennae and it has long antennae and it has long antennae and it has long antennae.

Conclusion

You can find my friend in the forest and in the forest.

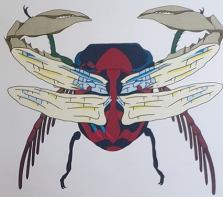


LATOYAH

Create a creature

What is the name of your creature?
Where does your creature live?
How big is your creature?
What does your creature eat?
What does your creature do?

banjo
bush
25cm
ants, bugs
fly, crawl, and other stuff



Information report

Introduction

My lives in the bush.
My bug eats ants and bugs.
My bug is 25cm tall. My bug is 6cm wide.
My bug can fly because it has wings.
My bug has head but you cannot see it.
My bug has legs.
My bug has pincers.
My bug is really cool.

My bug has antennae.
My background is a

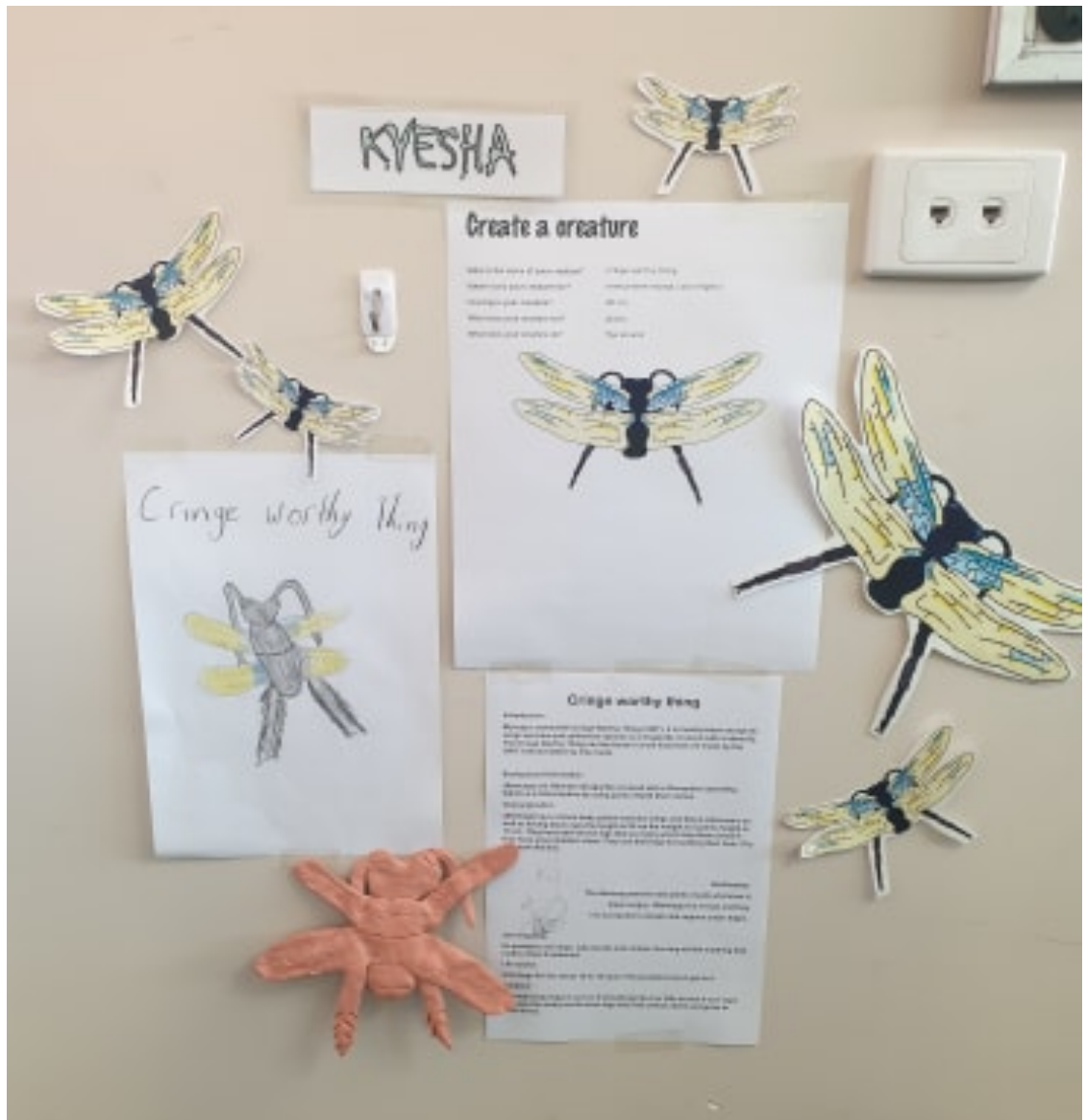
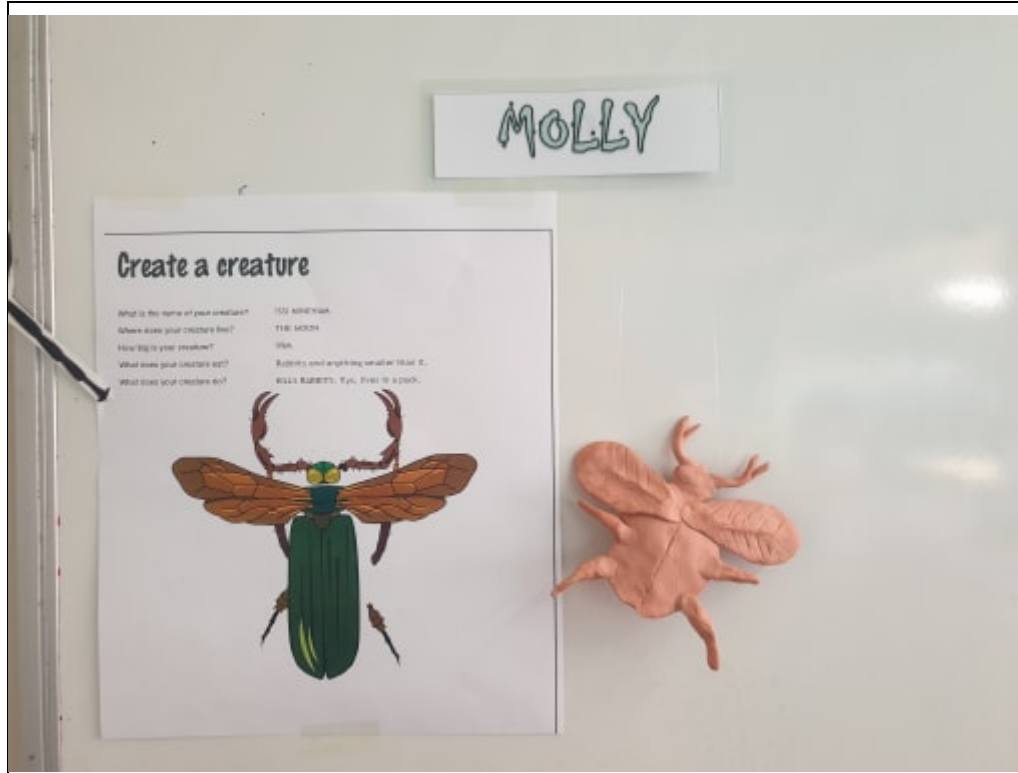
My creature look like a
dormant creature.
Colour: Rainbow

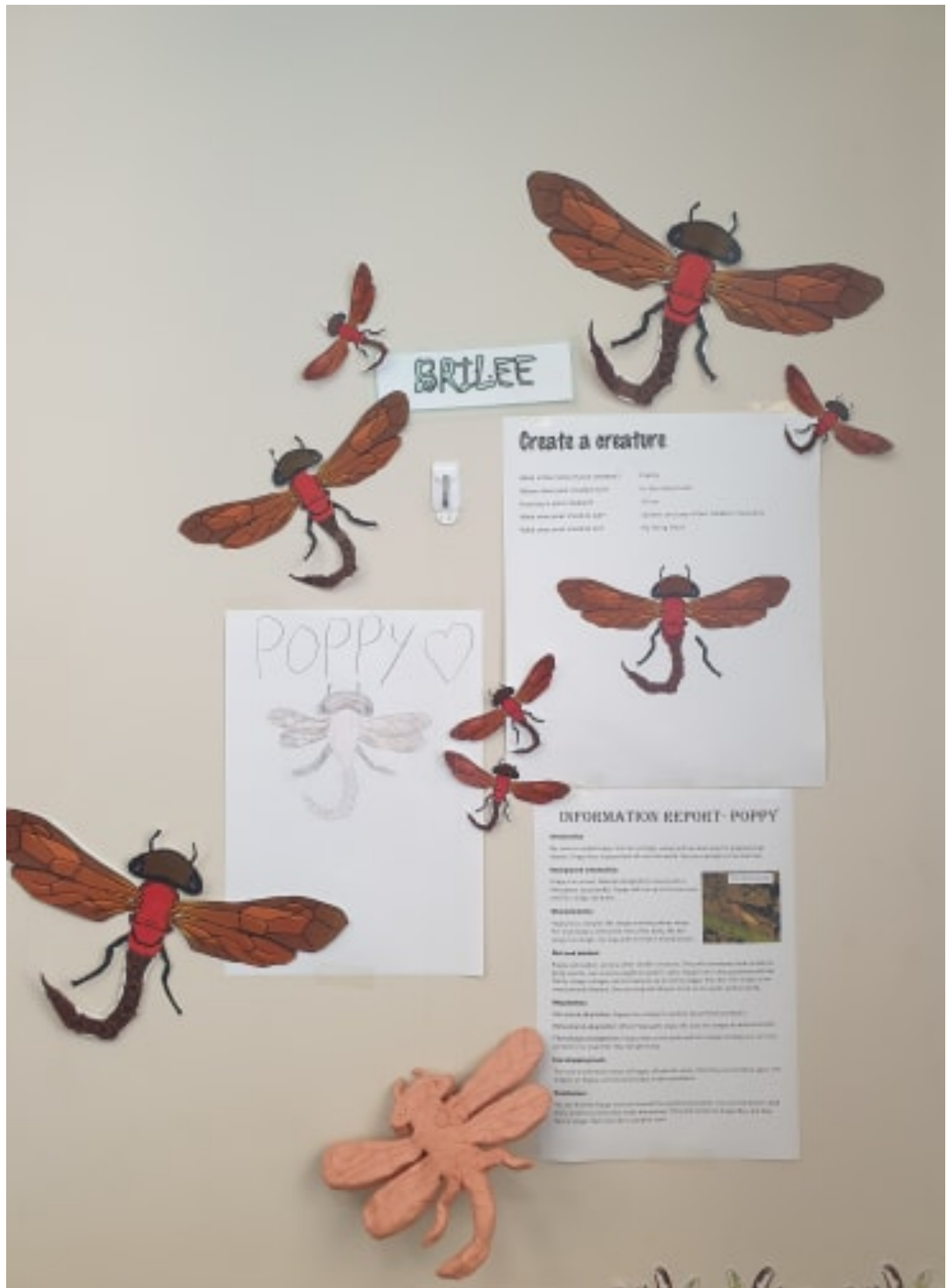


My bug fly's crawl and other stuff.
My bug is really nice.

Banjo







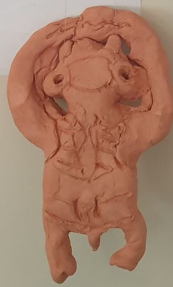
JEMMA

Create a creature

What is the name of your creature? Scock
Where does your creature live? In the desert
How big is your creature? 1 meter
What does your creature eat? Spiders/ small insects
What does your creature do? Tap dances and swims



Scock



Information report: Scock

Description: Its name is Scock it has one head, a small strong body, a spider's tail, two strong back legs built for climbing and pincers to hold prey. It is an insect that is crossed between a wasp and a spider.

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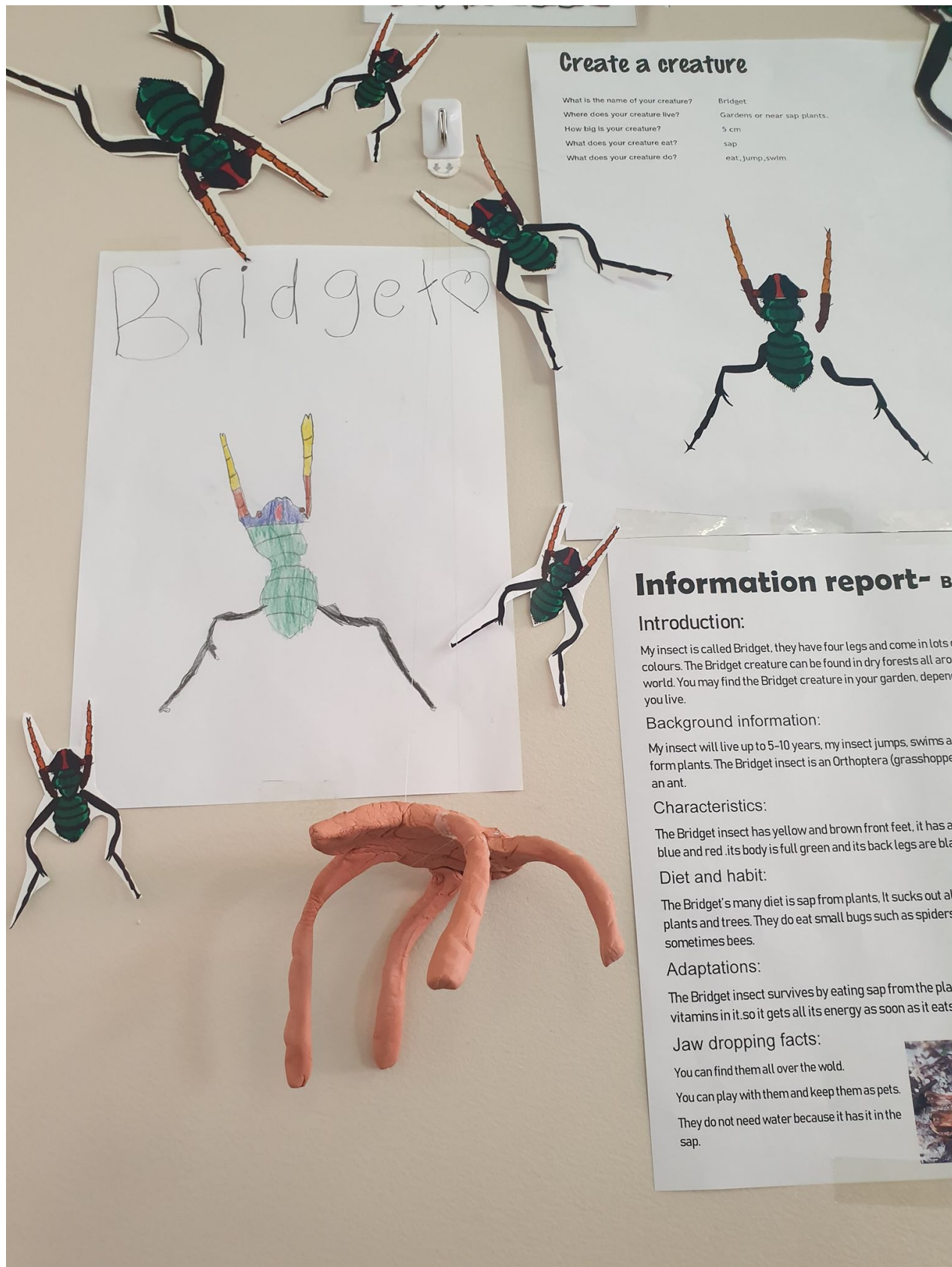
Jaw droppings: its predators are the Uncle Morton insect and the death crab.

BRODIE

Create a creature

What is the name of your creature? uncle morton
Where does your creature live? in a hut
How big is your creature? 5ft
What does your creature eat? fruit and sandwiches
What does your creature do? flys around and looks for food

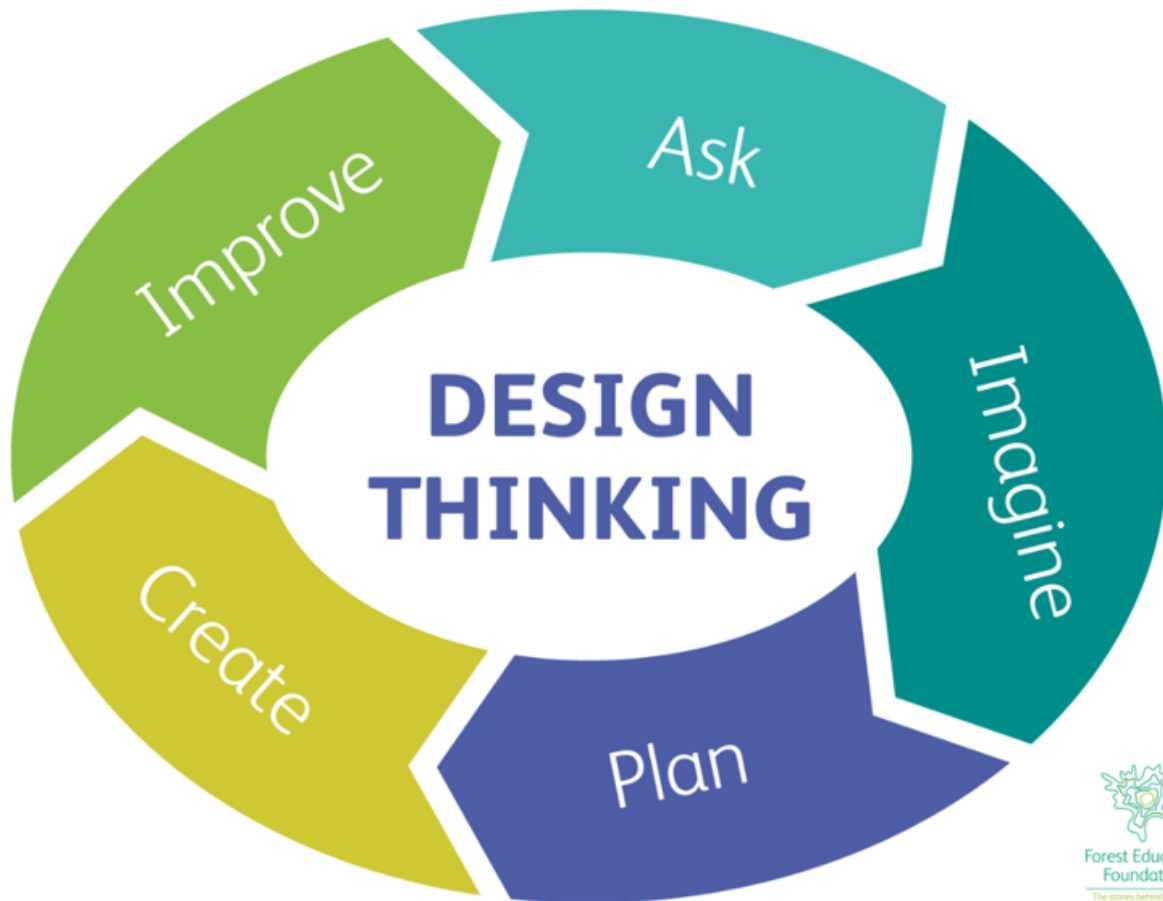




Lesson 10

Lesson Title: Species hotel

Students followed the design thinking model to plan their hotel.

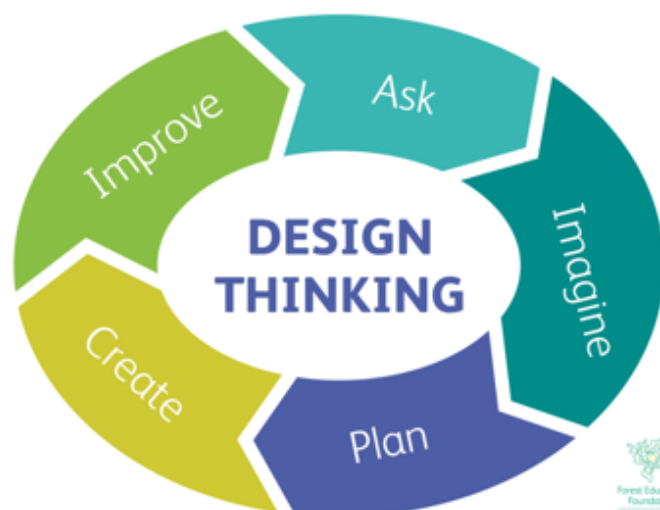


Each stage of the model was explained with examples and the students followed this planning page to plan out species hotel.

Each group was to provide 2 planning pages. One answering the ask and imagine stages of the design thinking model. And another page of what their hotel will look like, a drawing.

The following page is what the students were provided with to plan out their hotel.

SPECIES HOTEL



1. Pick a native animal that lives in a Tasmanian Forest:

Mammals of Tasmania:

- MONOTREMATA (Echidnas and Platypus)
- DIPROTODONTA (Possums, Kangaroos and Wombats)
- POLYPROTODONTA (Carnivorous Marsupials and Bandicoots)
- CHIROPTERA (Bats)
- RODENTIA (Rats and Mice)

2. Research your animal, consider how it will survive and stay healthy in its habitat?

- What does your animal need?
- What does it live in?
- What do you need for your species hotel?

ASK

- What will your species hotel look like?
- What type of habitat does your animal live in?
- Will there be a dense or open canopy?

IMAGINE

- Draw your Hotel? What will it look like?

PLAN

- Collect all of your materials and build your hotel.

CREATE

- Answer the question page.

IMPROVE

Eastern Barred Bandicoot

They like to ~~eat~~ root-eating
grabs. They also like beetles,
earth worms, berries and fungi.

~~what do you need?~~
what does it live in?

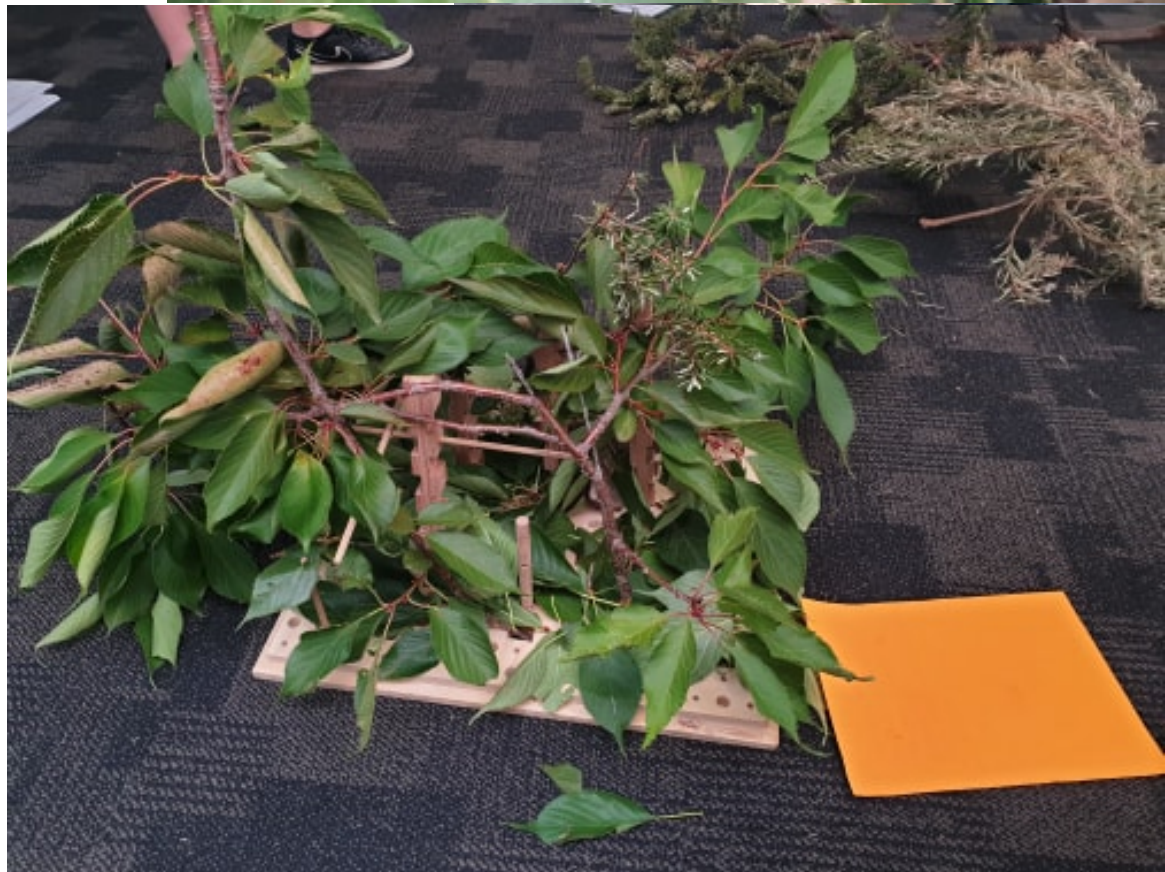
Eastern *Perameles gunnii*

They live in Queensland, Victoria and Tasman, woodlands and rainforests

We will need ferns, moss, old sticks



**This species hotel was designed for:
The eastern Barred Bandicoot.**



Students collected lots of leaves and dead sticks to protect their animal from predators.

Jemma, Thomas, Billy
Kyesha, Latyah

Kangroos are Herbivores. they
eat grass, flowers and eucalyptus
Kangroos lives in little grassy
~~places~~ places/areas
in our home we witnessed
! they need water
and trees and nice
grassy plains and plants

Billyson

Billyson



**This species hotel was designed for:
Kangaroos.**



Students created a dense bush habitat for their kangaroos.



Scarlet Robin

- What does your animal need? ^{Food (insects)} water
- What does it live in? ^{IN?} Trees in nests. They make themselves.
- What do you need for your Species hotel? Eucalyptus leaves, the wooden blocks.
- What will your Species hotel look like? it will have eucalyptus leaves, High up ^(Trees)
- What type of habitat does your animal live in? Eucalyptus woodlands.
- Will there be a dense or open canopy? Open canopy.
- What does your animal eat? arthropods such as insects and spiders.

This species hotel was designed for:
The Scarlet Robin



Students created a habitat that was similar eucalyptus trees.

Echidnas.

What they live in:

desert, rainforest, Bush and Alpine mountains they also live in hollow logs ~~logs~~ in the soil, burrows and in rock crevices.

What does your animal need:

encouragement at rocky habitat

Shelter

a Diet

What do you need for your Animal Species hotel:

Shelter

food (Ants, worm and larvae)

bedding

Bush



Our Species Hotel

What will your Species hotel look like

~~site~~ butrow

What type of habitat does your Animal live in

Rainforest

rocks

Will there be a dense or open canopy

yes

This species hotel was designed for:
Echidnas



You will notice the burrows that were made with bark in the second photo.

**The students then moved to the improve phase of the design thinking model.
After creating their hotels, each group answered the following questions:**

Group: _____

Members:

1. Which animal did your group pick?
2. What does your animal live in?
3. What does your animal eat?
4. List 3 facts that your researched about your animal?
5. Did you create a successful hotel for your animal?

Is your animal protected from predators?

Can your animal access its food?

Could your species hotel be transferred into its natural habitat and be used?

6. How would you change your species hotel to be improved?

Students responses:

Group: gfeen

Members: Jemma, Billy, Katayah, Thomas

1. Which animal did your group pick? kangaroo

2. What does your animal live in? A grassy land environment

3. What does your animal eat? grass

4. List 3 facts that your researched about your animal?

did you know kangaroos live in grassy plains?
did you know kangaroos are herbivorous?
did you know kangaroos are herbivorous?

5. Did you create a successful hotel for your animal?

yes we did

Is your animal protected from predators?

yes

Can your animal access its food?

yes

Could your species hotel be transferred into its natural habitat and be used? No

6. How would you change your species hotel to be improved?

by getting water.

Group: Blue

Members:

Brilee, Saira, Holli, Loby, Jye, Brady

1. Which animal did your group pick? Scarlet Robin

2. What does your animal live in? in eucalyptus woodlands

3. What does your animal eat? Insects.

4. List 3 facts that your researched about your animal? It is 13 cm in length.
Male and Female look different. (the males have a black and white head)

5. Did you create a successful hotel for your animal? yes

Is your animal protected from predators? yes it could hide in the trees

Can your animal access its food? yes on trees and grass.

Could your species hotel be transferred into its natural habitat and be used? yes because it had ~~natural~~ natural objects.

6. How would you change your species hotel to be improved? a little enclosed area ~~then~~ it protects them from the rain.

Group: Pink

Members:

Issi, Samara, Cody, Bailey, Charlie, Boris

1. Which animal did your group pick?

Echidna

2. What does your animal live in?

desert Burrow Bush mountain

3. What does your animal eat?

ants egg insects

4. List 3 facts that your researched about your animal?

They live in mountains
They have spines to defend them self

5. Did you create a successful hotel for your animal?

yes

Is your animal protected from predators?

yes

Can your animal access its food?

yes

Could your species hotel be transferred into its natural habitat and be used?

yes

6. How would you change your species hotel to be improved?

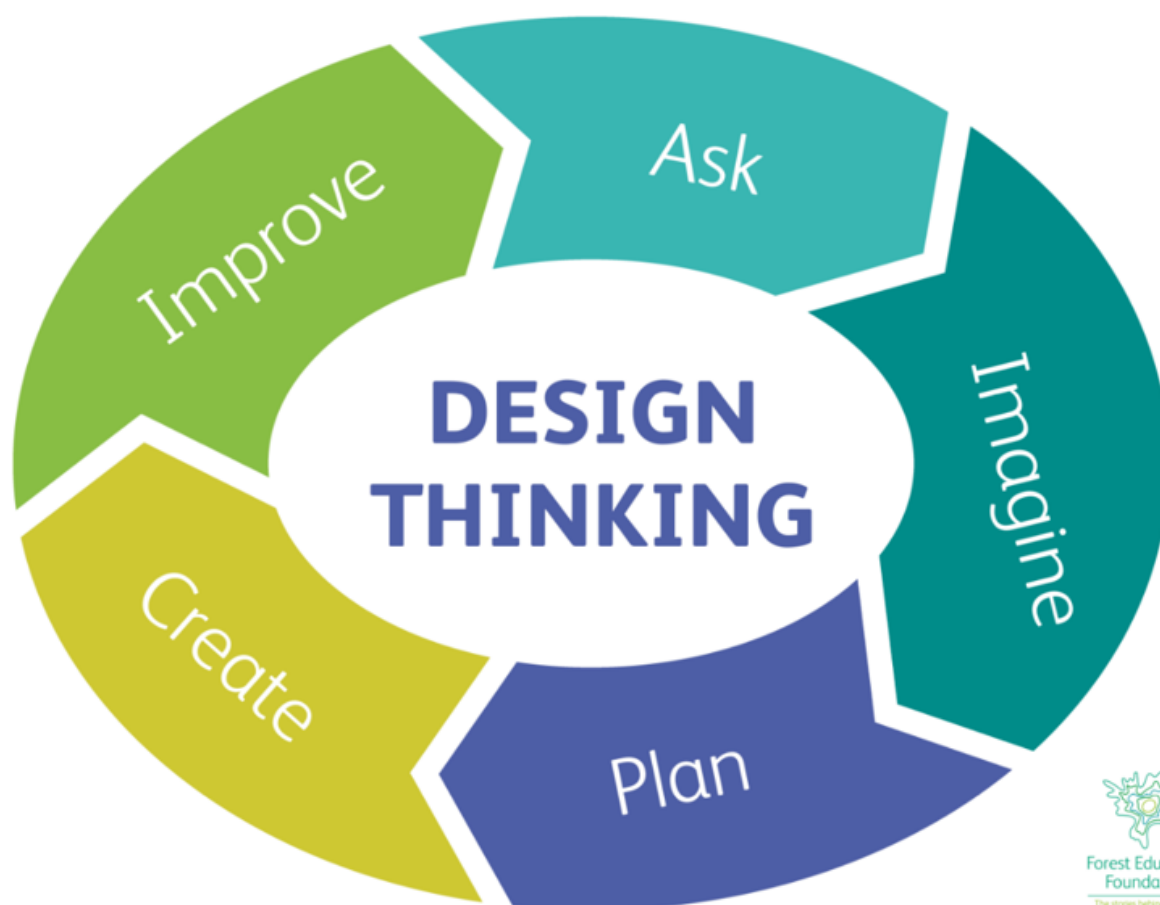
add ~~to~~ more leaves
add water
add food

Lesson 11

Lesson title: Bridge Challenge

GROUP	Car rollover from start to finish	Hold 5kg of weight	Bridge touch both tables for support
ORANGE	x		✓
GREEN	x		✓
BLUE			
PINK			✓

Students followed the design thinking model to plan their bridge.

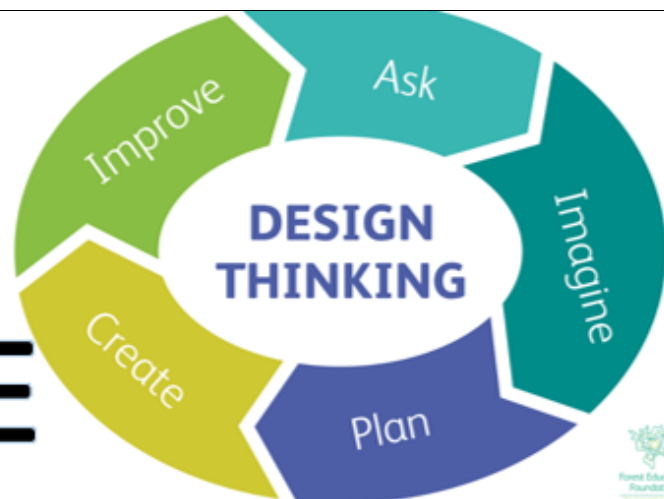


Each stage of the model was explained with examples and the students followed this planning page to plan out species hotel.

Each group was to provide 2 planning pages. One answering the ask and imagine stages of the design thinking model. And another page of what their hotel will look like, a drawing.

The following page is what the students were provided with to plan out their bridge.

BRIDGE CHALLENGE



Challenge: build a bridge across 2 desks with a 50cm gap between the desks, ensure your bridge can hold as much weight as possible and have a small car roll over it.

Aim: for your bridge to hold the most weight.

Success Criteria: Think back to when you made your first bridge, what did it look like and what did you use to support it? HINT: the tables are further apart so you can't use the long blocks to connect to both tables at the same time.

- Your bridge must connect to both tables.
- Your group must work together to create a design that is supportive and effective.
- Your bridge must support 5kg.
- Your bridge must be able to have a car roll over it.
- Join, connect and assemble the blocks to create a bridge.
- Have fun!

ASK

- Plan your bridge.
- What will it look like?
- How will you meet the challenge?

IMAGINE

- Draw your bridge plan

PLAN

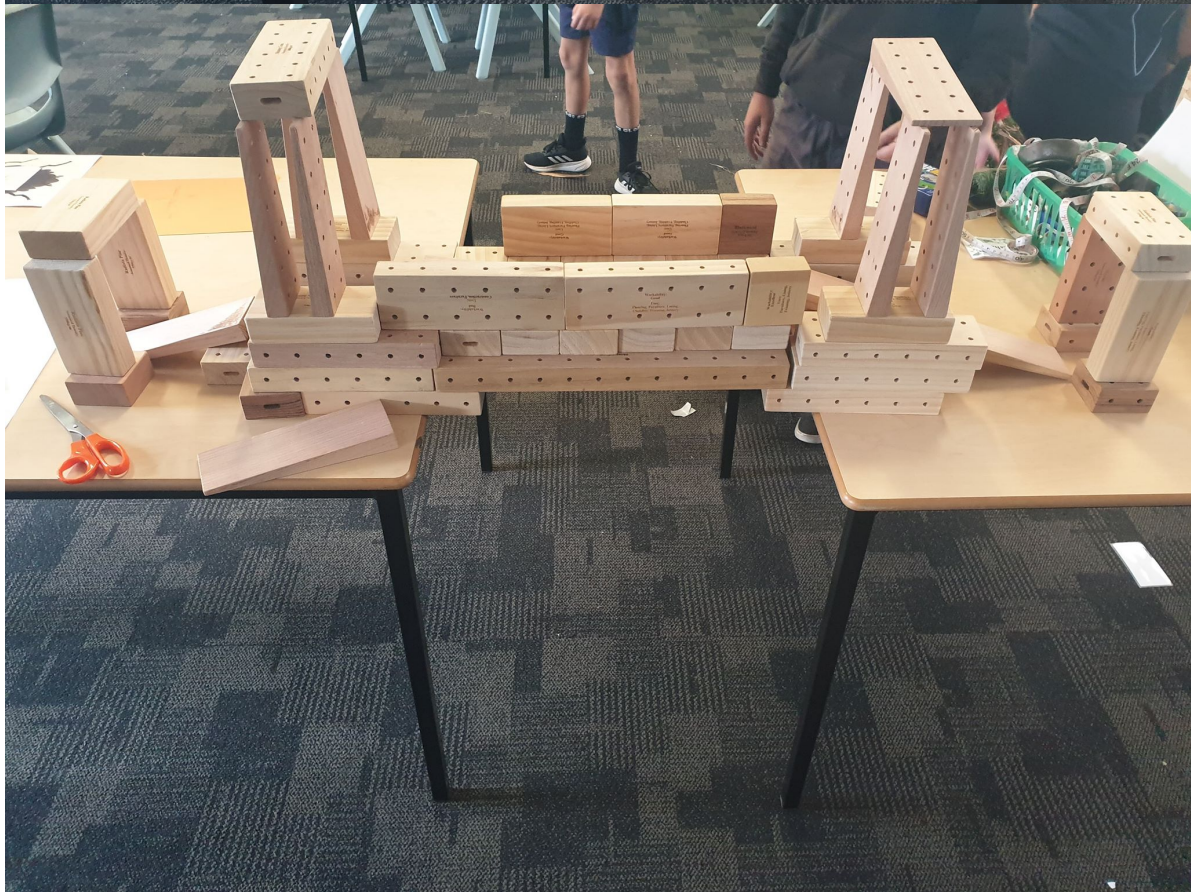
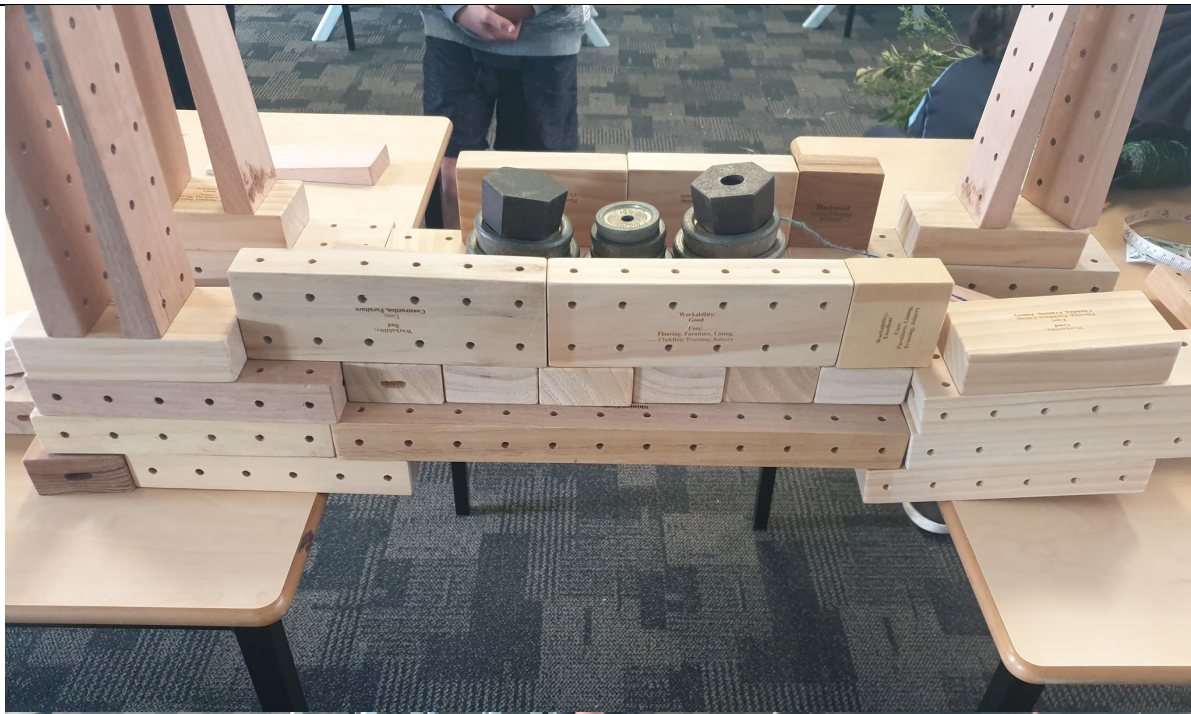
- Build your bridge and test that a car can roll over it and that it can hold some weight.

CREATE

- Answer the question page.

IMPROVE

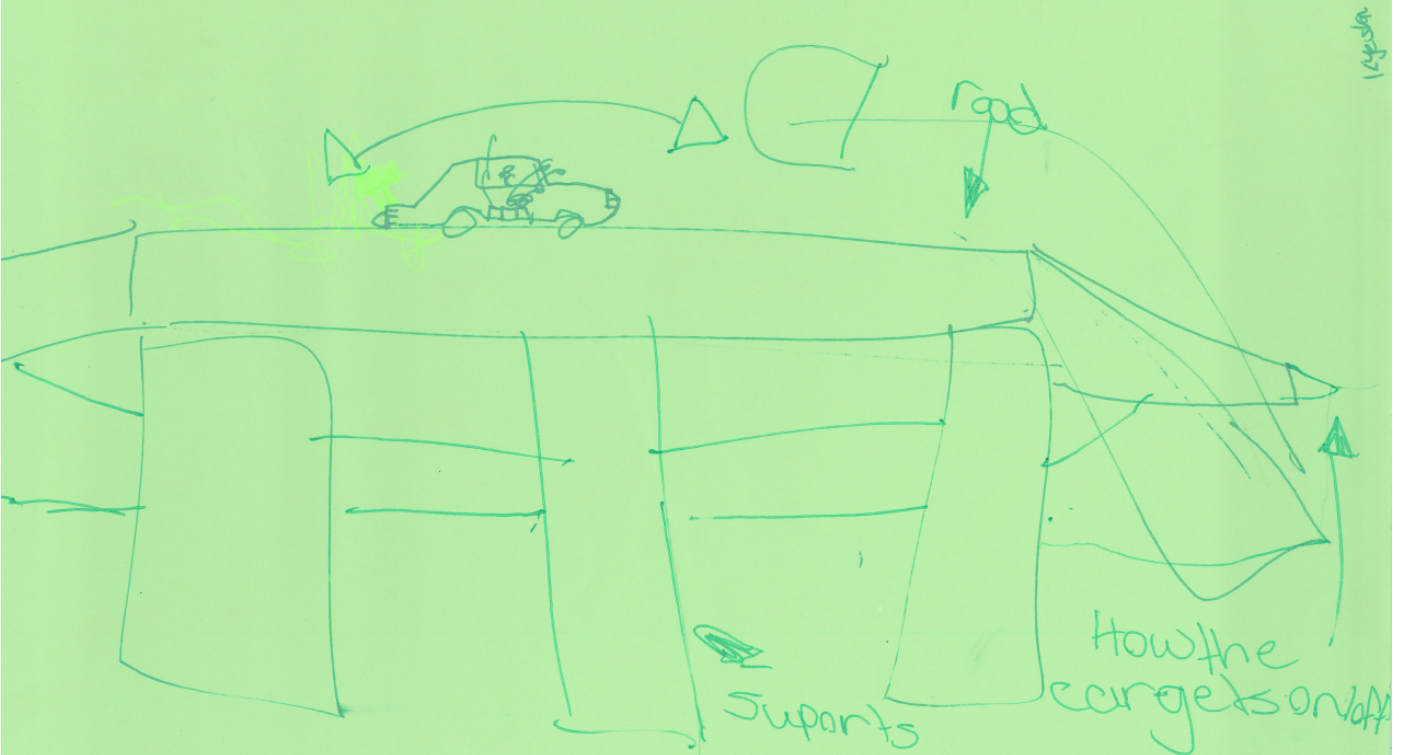




ORANGE group held the 5kg, the car didn't roll across the bridge.
So they came to the conclusion that is the aspect that is they will fix
next time.
Their reflection follows.

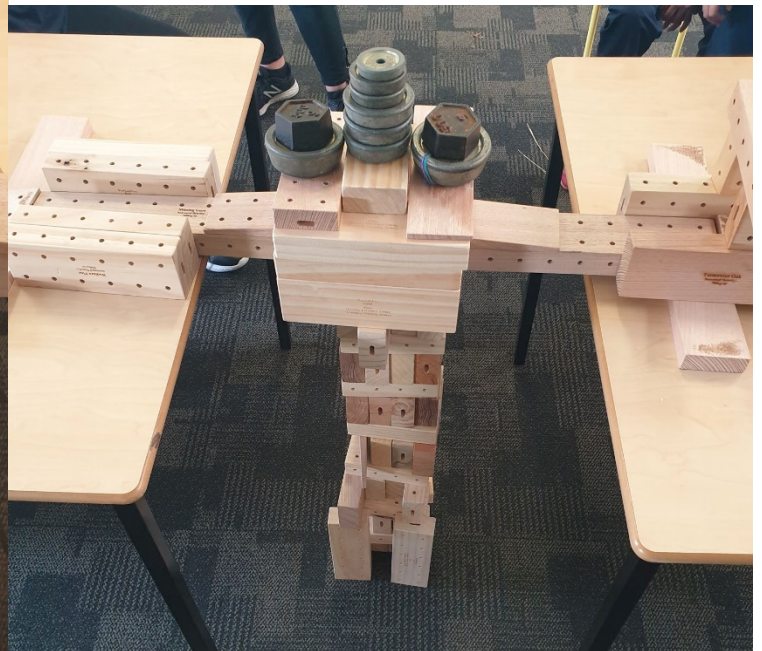
Planning
 Sheet.
 Build it out of blocks.
 Kyusha says that it will have
 to cross a big hole
 - we need supports.
 Put a tree beam
 over the top of
 it
 - we need a ramp
 - failing.

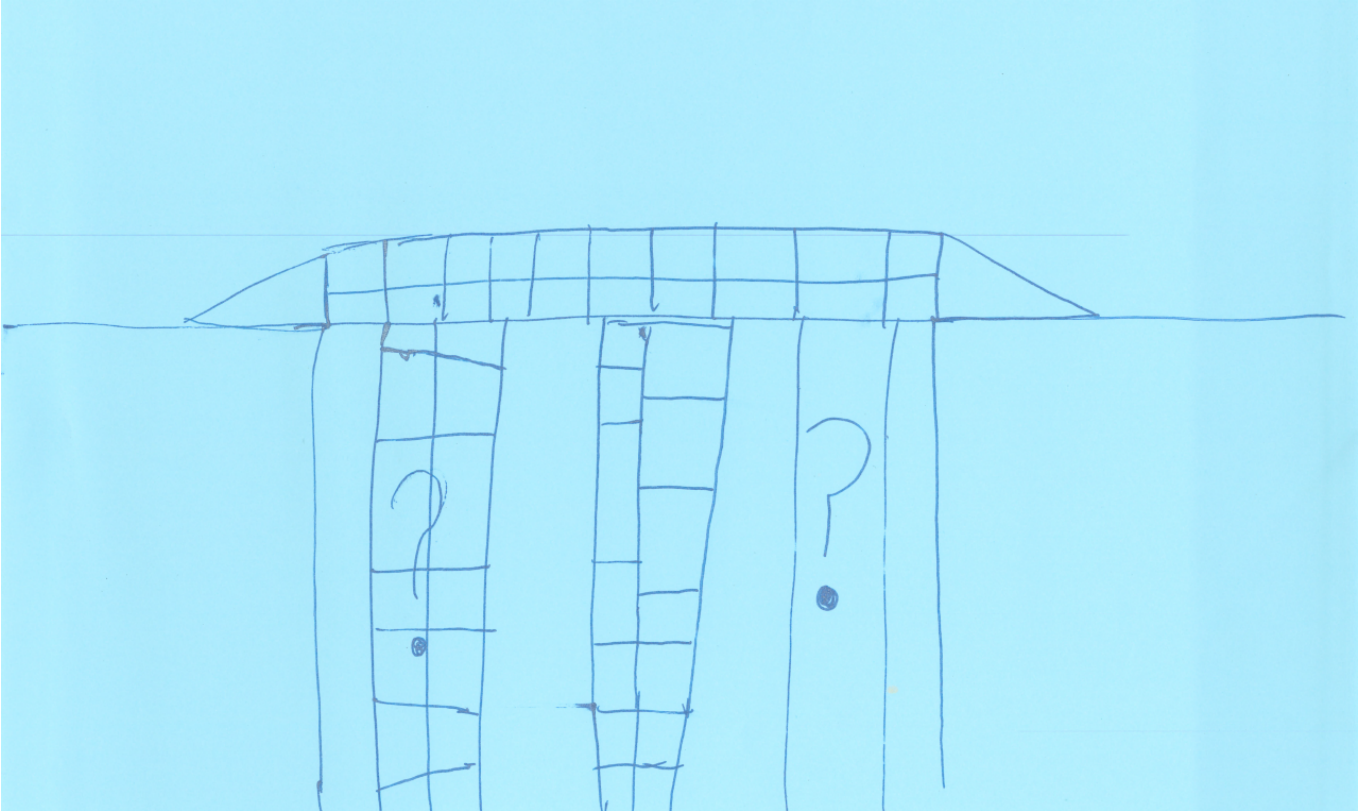
Bill
 60cm





GREEN group designed their bridge like the jenga game. They had one large support pole in the centre of their bridge. It worked very well as their bridge held the full 5kgs.





Bridge Planning

It will have a lane for the car to drive across and supports to hold it up. We will have a long pole to support the bridge.

Bridge Challenge Plan.

it will look like a Bridge

we need extra Support on the Sides

extra Support under the Bridge



PINK group established that they needed more support on the tables, rather than the ground. They used all of their blocks to build a long pole of support in the middle of their bridge but it wasn't very stable. Their reflection follows.

Orange

Group: Orange

Members:

Lukas Pini, Ewan, Molly

1. How much weight did your bridge hold?

5kg

2. Did the car roll over your bridge successfully?

HELL NO!!!

3. How could you improve your bridge?

it needs 2 be more flatter to help the car roll over bridge more easily

4. What else could you use to support your bridge?

concrete, sticky tape, bubble gum

5. Did your bridge go to plan? Yes No

If no, How did it change?

Group: green

Members:

Lataiah, Jemma, Billy, Kyesha, Thomas

1. How much weight did your bridge hold? 5kg

2. Did the car roll over your bridge successfully?

No

3. How could you improve your bridge?

Bye taking of the ramps in our bridge

4. What else could you use to support your bridge?

my feet you could use our feet and stand on each side

5. Did your bridge go to plan? ☒ Yes ☐ No

If no, How did it change?

the car did not get to the other side
but our bridge did hold 5 Kgs.

Group: Pink

Members:

Issi, Samara, Cody, Bailey, Charlie, Brodie

1. How much weight did your bridge hold?

nothing because we ~~didn't~~ ^{didn't} have enough support

2. Did the car roll over your bridge successfully?

no because it ~~car~~ ^{car} was running into stuff/blocks

3. How could you improve your bridge?

Putting more support under it and on the side making sure the blocks are stable

4. What else could you use to support your bridge?

more blocks in different areas
more blocks under it

5. Did your bridge go to plan? Yes ☒ No

If no, How did it change?

put more support

The students then moved to the improve phase of the design thinking model.
After creating their hotels, each group answered the following questions:

Lesson 12

Lesson title: adaptations in 3 different habitats

Adaptations Activity

Ocean

Forest

Desert

- Research Ocean animals with extreme adaptations.
Pick 1 animal.
Complete a fact file on that animal.
- Research Forest animals with extreme adaptations.
Pick 1 animal.
Complete a fact file on that animal.
- Research Desert animals with extreme adaptations.
Pick 1 animal.
Complete a fact file on that animal.

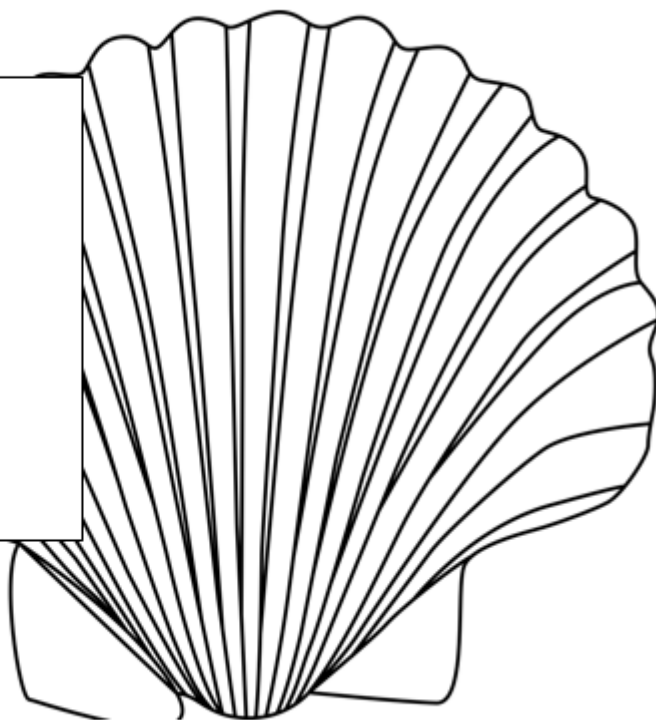
COMPLETE 2 FACT FILES

Name:

Habitat:

Diet:

Extreme Adaptation:

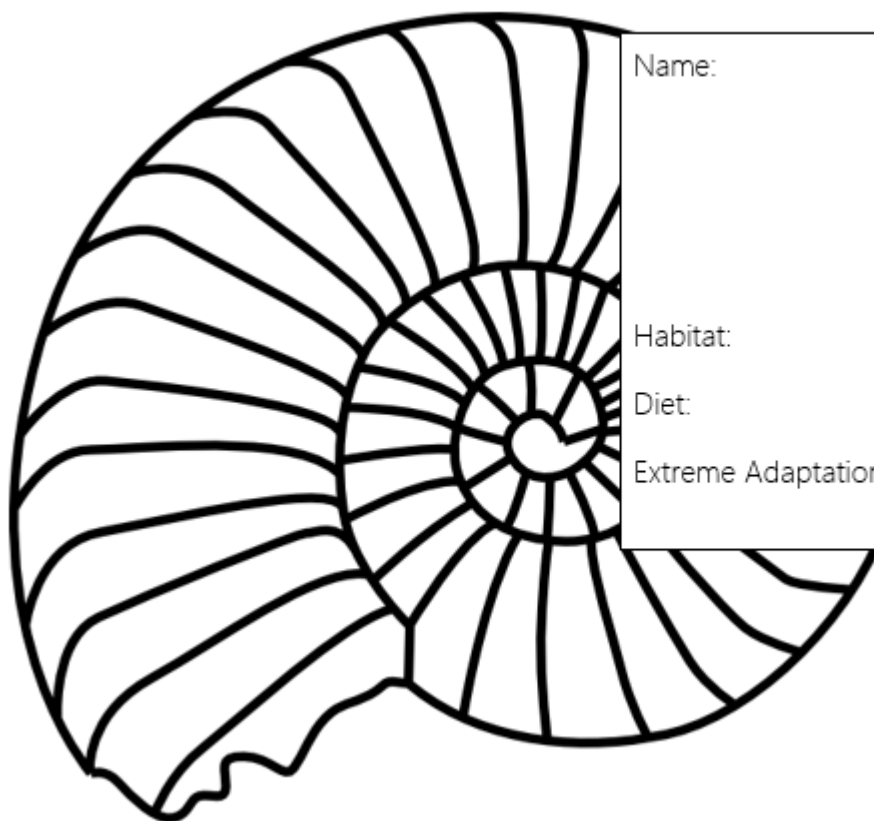


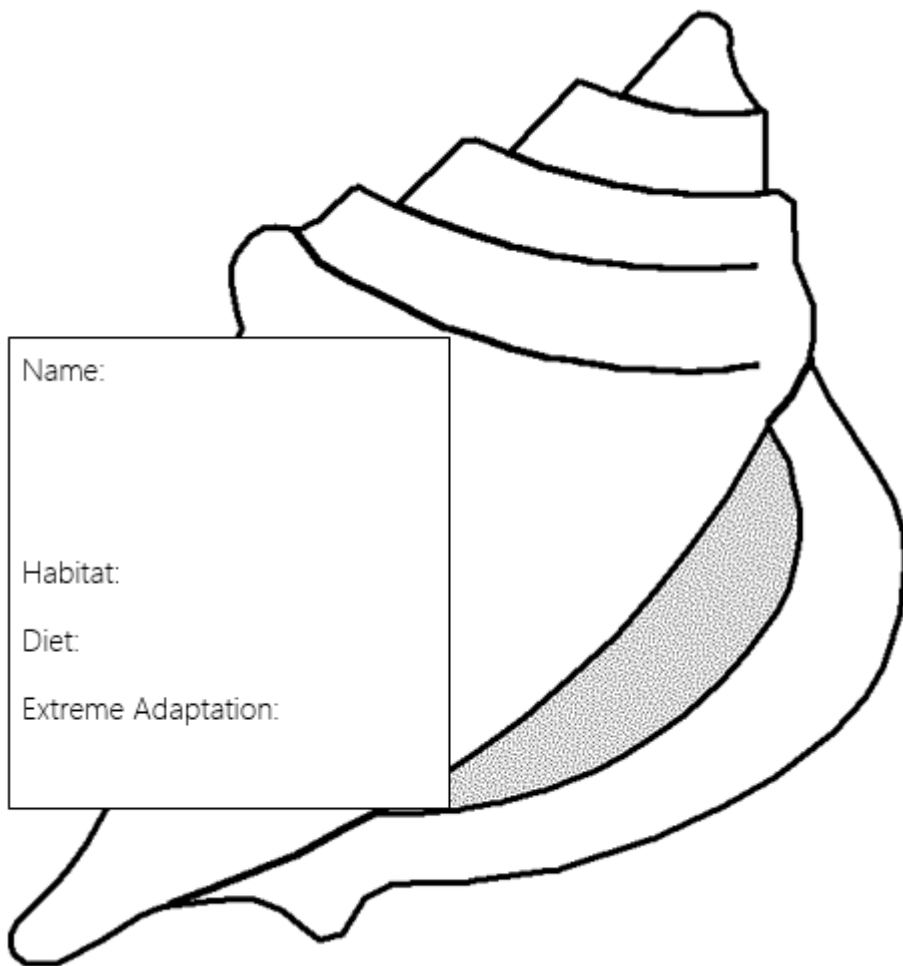
Name:

Habitat:

Diet:

Extreme Adaptation:





Name:

Habitat:

Diet:

Extreme Adaptation:

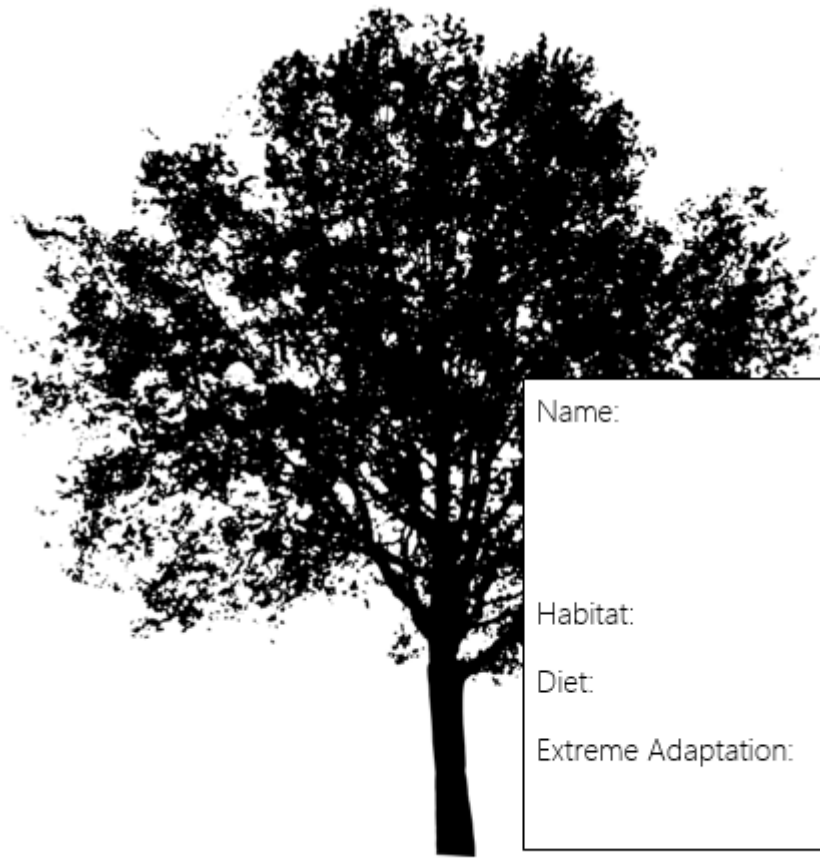


Name:

Habitat:

Diet:

Extreme Adaptation:

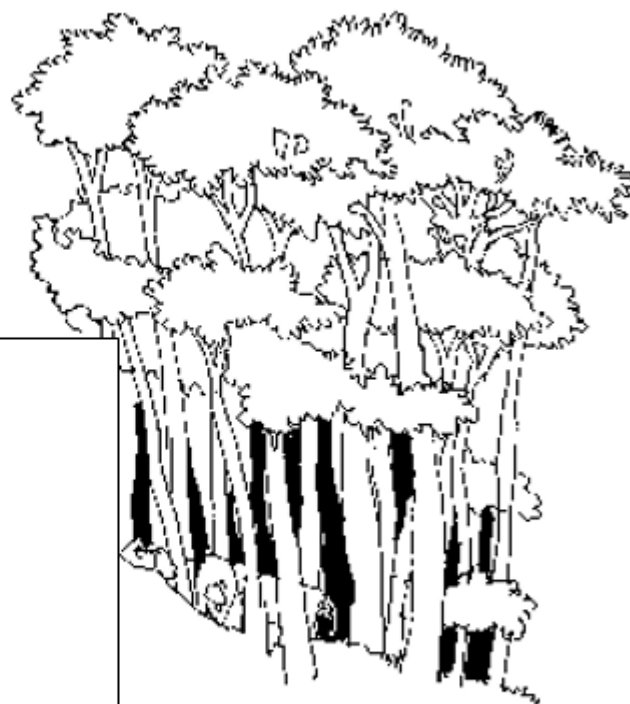


Name:

Habitat:

Diet:

Extreme Adaptation:

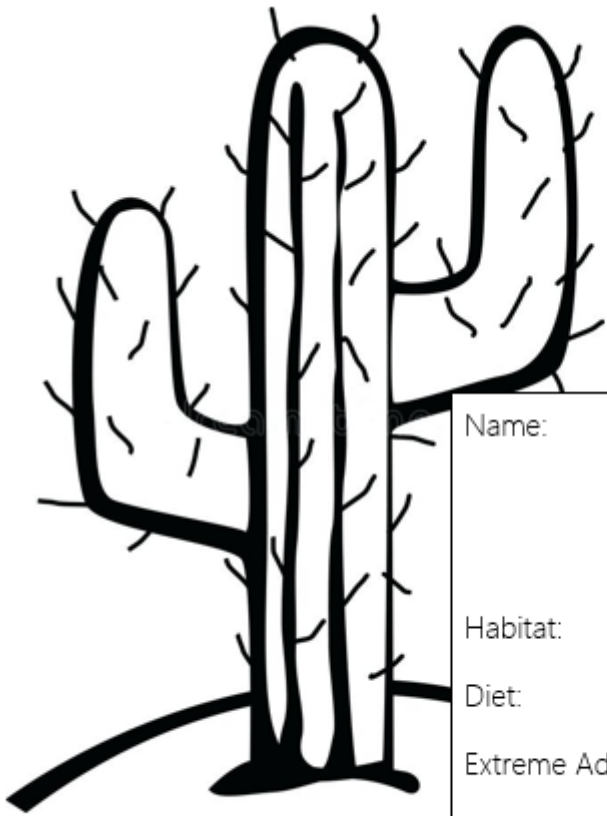


Name:

Habitat:

Diet:

Extreme Adaptation:

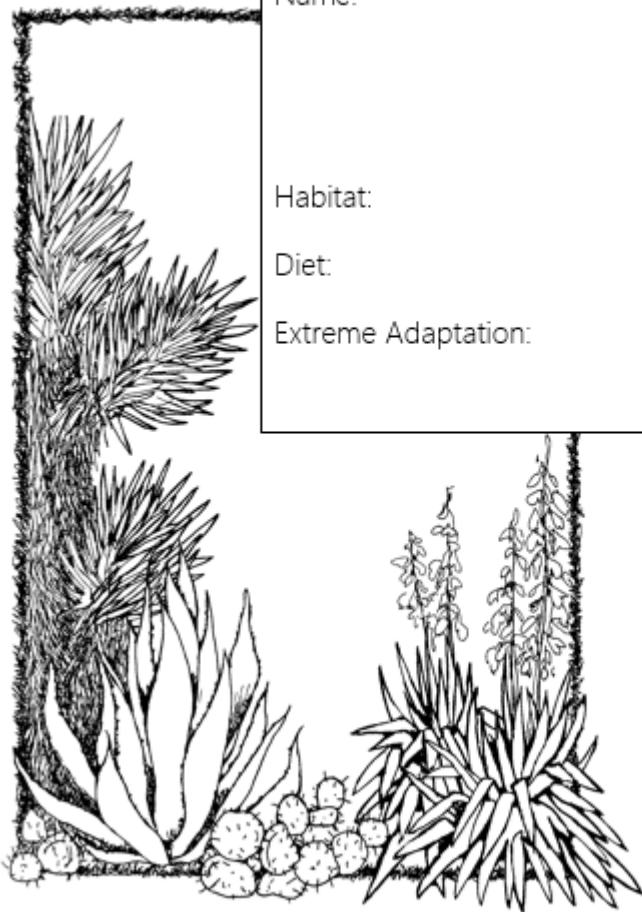


Name:

Habitat:

Diet:

Extreme Adaptation:



Name:

Habitat:

Diet:

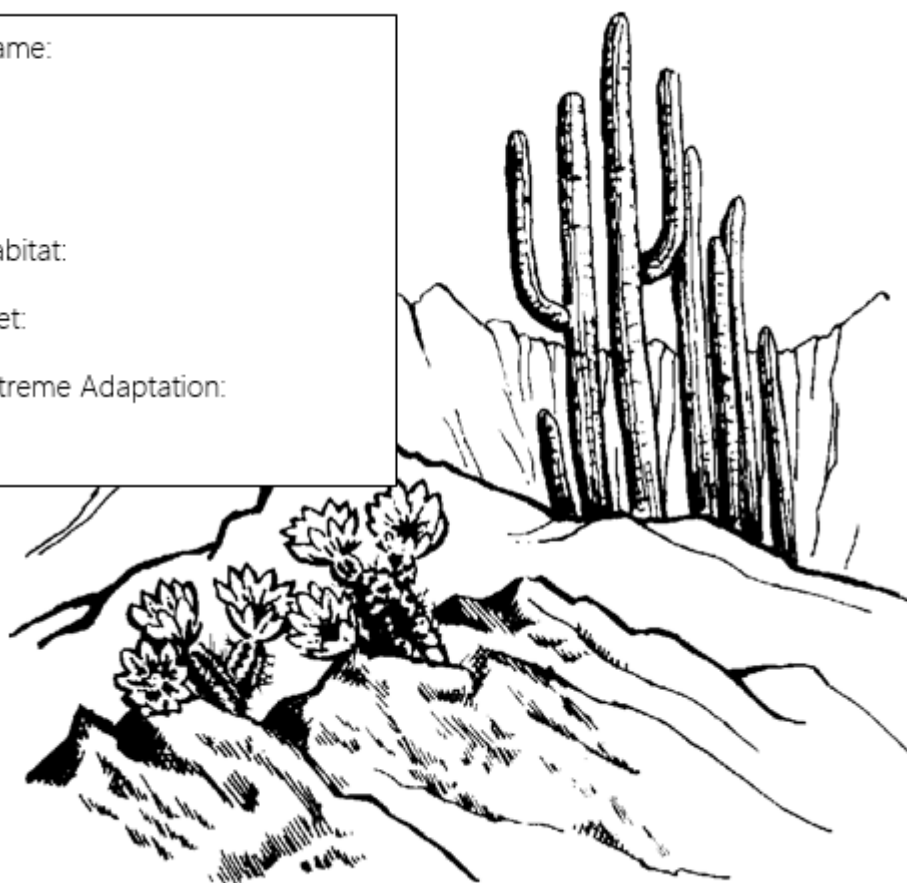
Extreme Adaptation:

Name:

Habitat:

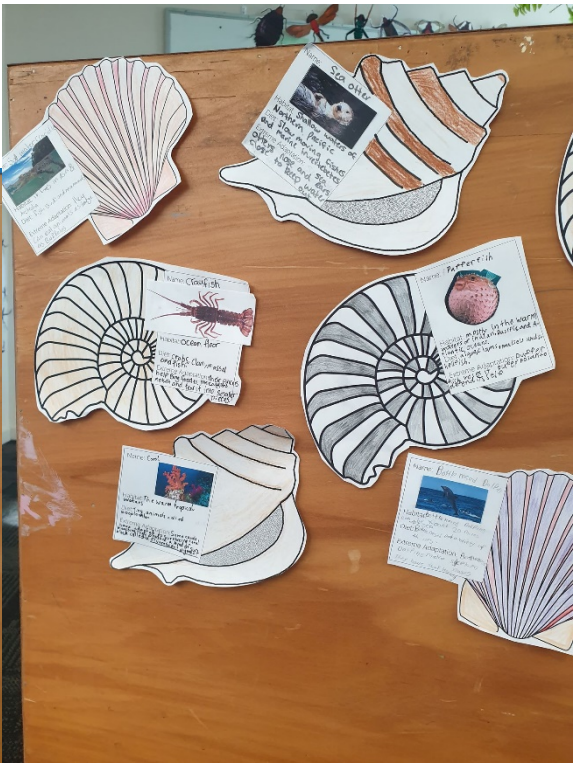
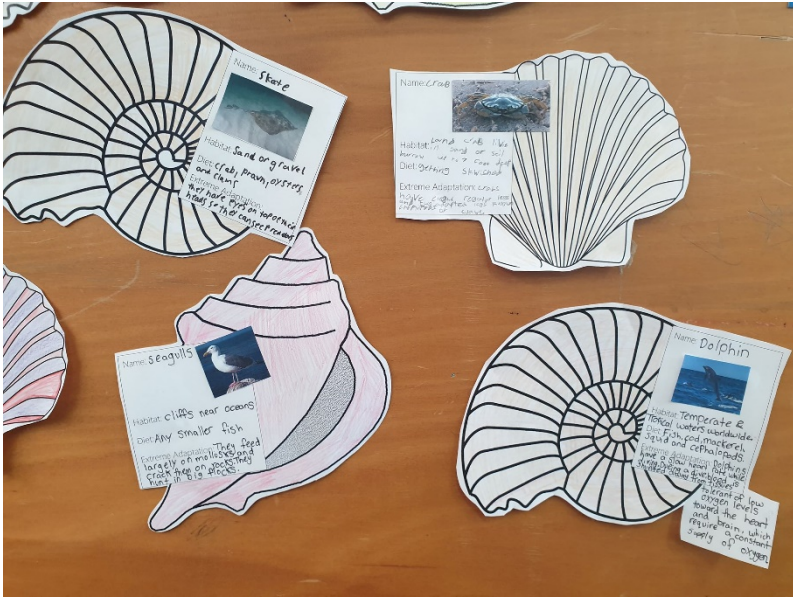
Diet:

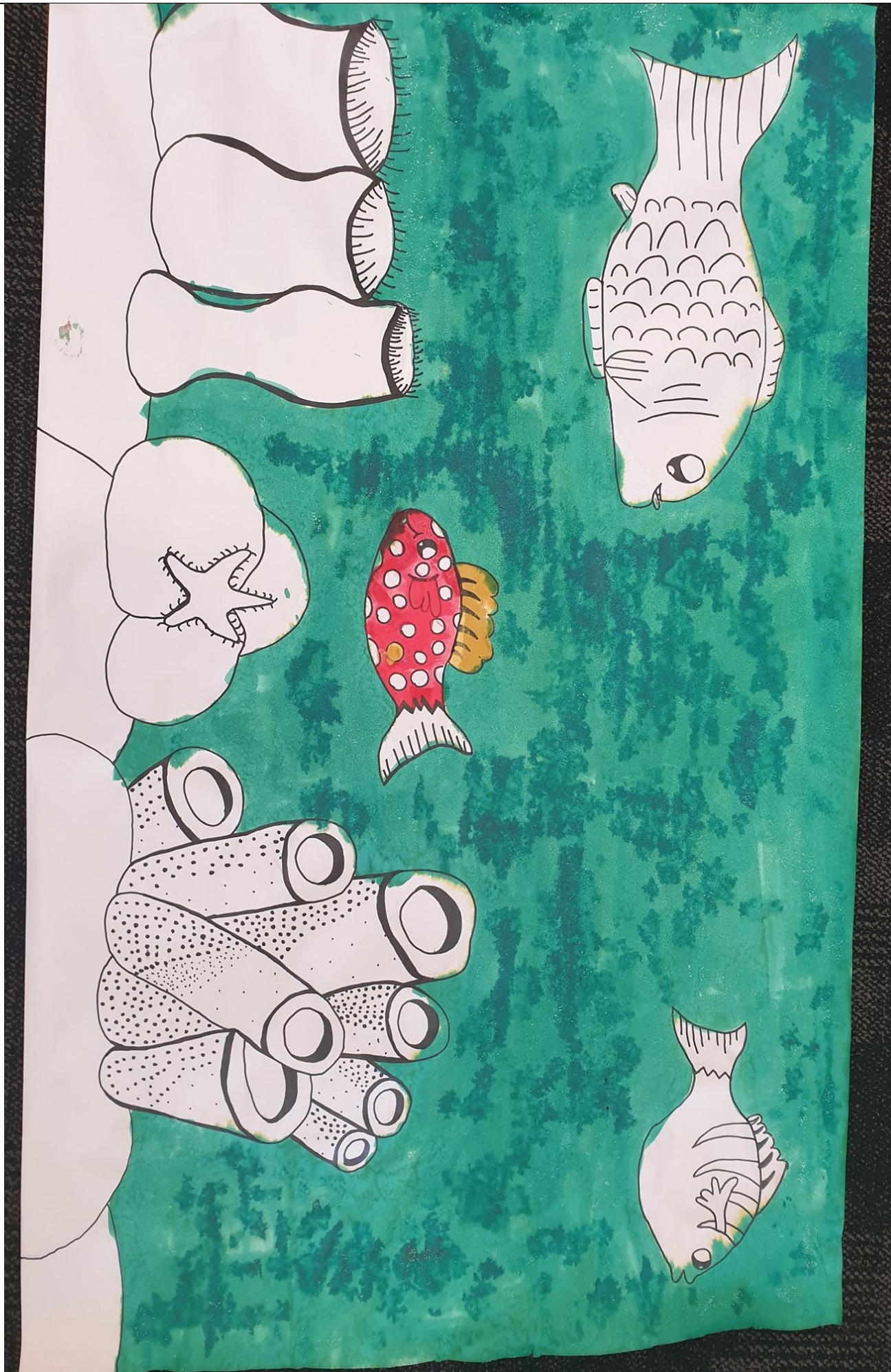
Extreme Adaptation:



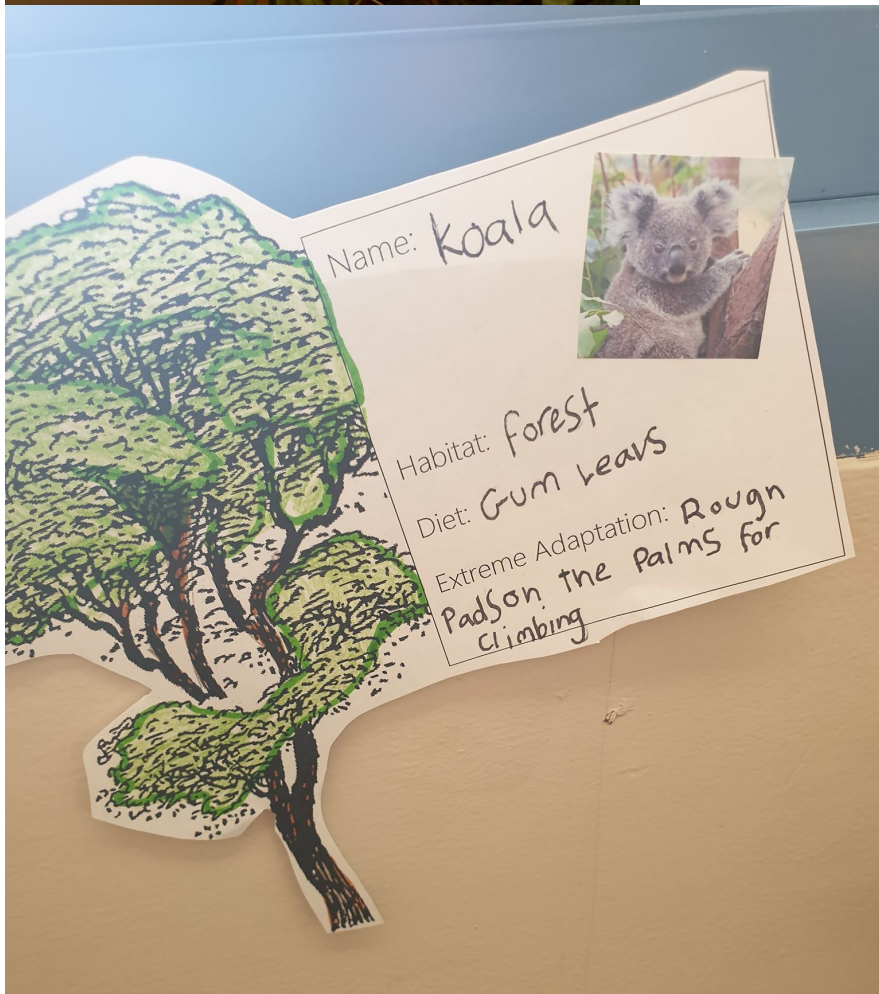
Jemma Created 3 habitats and we added our animal fact files to each habitat.

OCEAN





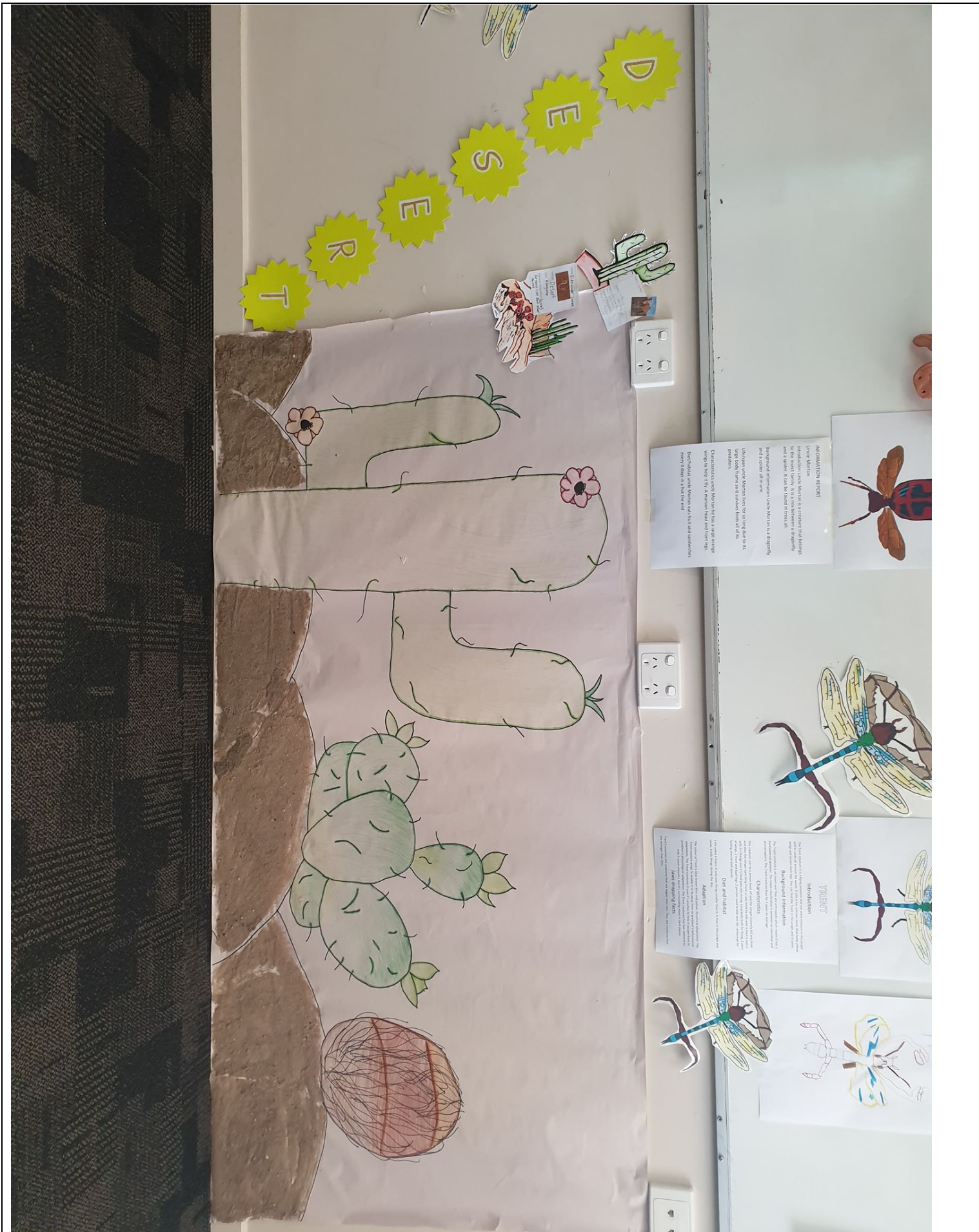
FOREST





DESERT







CODY



Create a creature

What is the name of your creature? Diarrhoea
Where does your creature live? China
How big is your creature? 15 cm
What does your creature eat? spiders and bugs
What does your creature do? poisons people



Diarrhoea

Information report

Diarrhoea

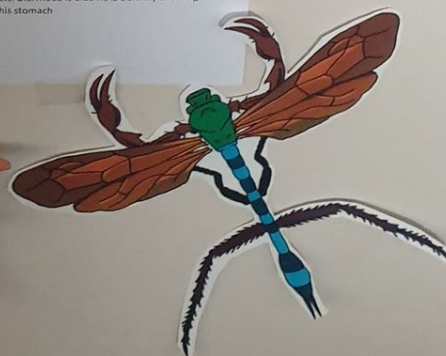
Introduction: Diarrhoea lives deep in the rain forest in china it has blue body brown wings brown pincers a green head and dark brown back legs.

Background information: The diarrhoea is an insect it usually lives for 15 years this is a long life span for an insect but diarrhoea insect has great instincts that keep it alive it can tell when a predator is near and it is great at hiding.

Characteristics. Diarrhoea is 15 cm long he weighs 4 grams and its 1 cm high, the back legs are very hairy the stinger is what poisons people he looks like a frog.

Diet: Diarrhoea eats tropical fruits and small insects he cleans himself and hunts through the day.

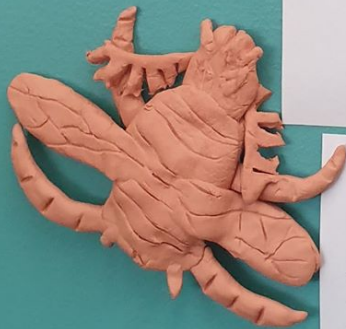
Mind blowing facts. Diarrhoea is blue he is a skinny and long he has strips on his stomach.



SAMARA

Create a creature

What is the name of your creature?	Anti poo bug
Where does your creature live?	In the forest near the beach
How big is your creature?	1mm
What does your creature eat?	wasp, plants and spiders
What does your creature do?	fly, swim, dig and walk



Information report –The Anti Poo Bug

Introduction

My insect is called the Anti Poo Bug. It lives in the forest near the beach and be found all over the world. The Anti Poo Bug has a brown body, beige wings and brown legs.

Characteristics

It looks like a tic with long antennae, he is 1mm tall weighs nothing it's got a black head and body brown antennae's maroon green wings with a bit of yellow.

Diet and habit

It eats wasp's, spider's and plants and it eats when it feels like eating it lives in a tropical forest located close to beaches it fly's every day.

Adaption

It does not have any body markings, one thing that helps him survive is his body fangs and antennae.

Jaw dropping facts the antennae are really sensitive it can sense stuff from five meters.

Conclusion

You can find my insect in the sand and in the bush



KYESHA

Create a creature

What is the name of your creature? cringe worthy thing
Where does your creature live? everywhere except cold reigeln
How big is your creature? 20 cm
What does your creature eat? plants
What does your creature do? flys around



Cringe worthy Thing



Cringe worthy thing

Introduction:

My bug is named the Cringe Worthy Thing (CWT), it is mostly black except its wings are blue and yellow the species is a dragonfly crossed with a stone fly. The Cringe Worthy Thing can be found in small huts that are made by the CWT insects hidden by tree roots.

Background information:

Utterbugs are Odonata (dragonfly) crossed with a Plecoptera (stonefly). Which is a Odonoptera by using parts of both their names.

Characteristics:

Utterbugs have a black body yellow and blue wings and black antennae's as well as having black eyes the length is 20 cm the weight is 5 grams height is 10 cm. They have dark brown legs that are hairy which help them sense if they have any predators close. They use their legs for building their huts. The look like this:

Diet/habitat:

The utterbug species eats plants it eats whenever it feels hungry. Utterbugs live in huts and they live everywhere except cold regions under 5dgrs.

Jaw dropping:

Its predators are dogs, cats lizards and snakes, this bug will kill anything that makes it feel threatened.

Life span:

Utterbugs live for about 10 to 15 years if its predators don't get to it.

Adaption:

ough body helps it survive if something hits it or falls on one it won't get aged too badly and its back legs help it to collect sticks and grass to its hut.

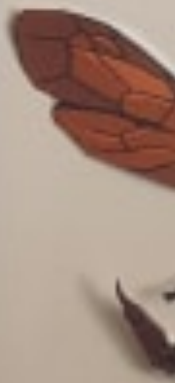




Create a creature

What's the name of your creature?
 What does your creature eat?
 Where is your creature?
 How does your creature feel?
 How does your creature move?

What's its color?
 How big is it?
 How fast is it?
 How long does it live?
 How many?

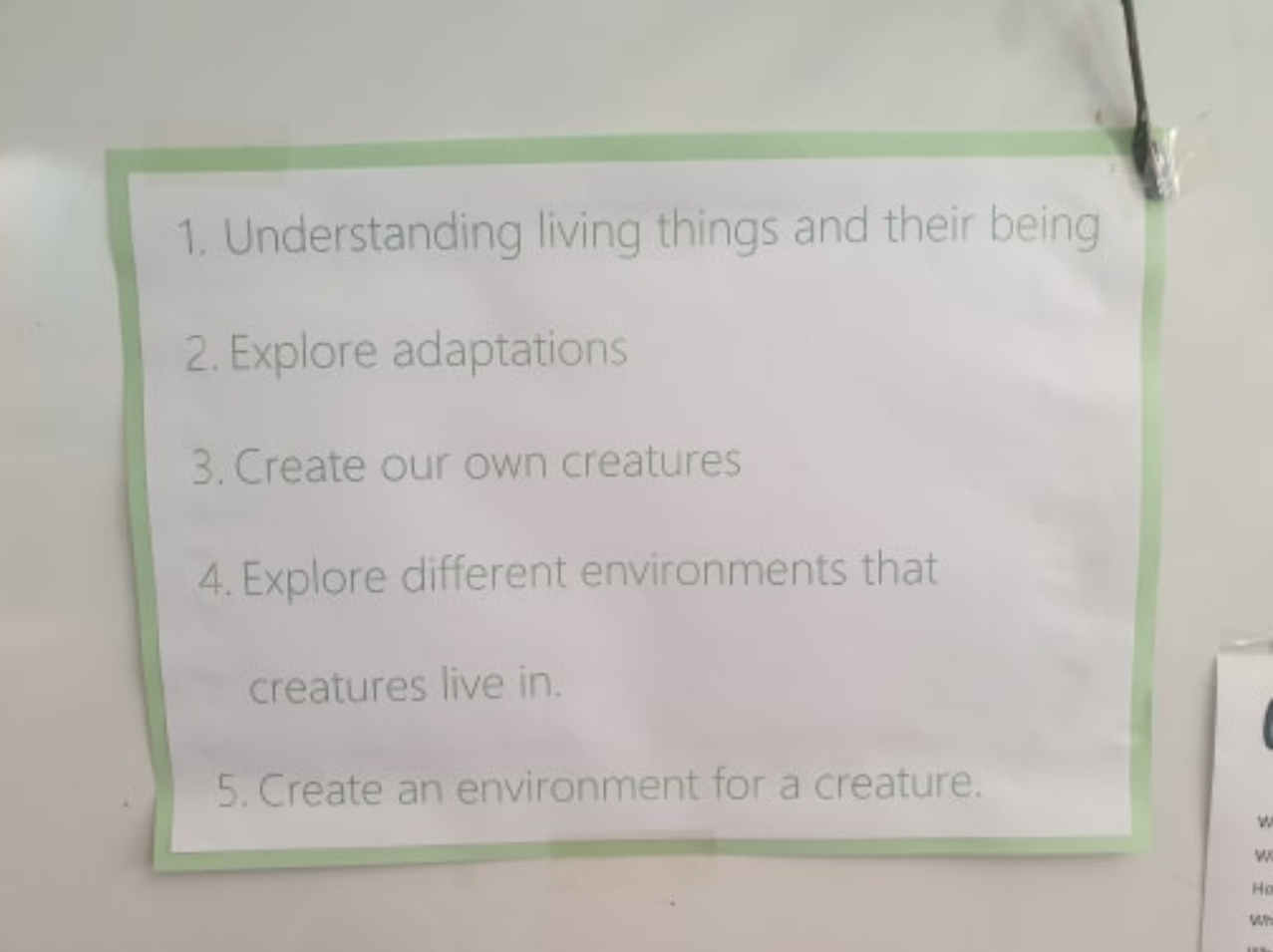


LEARNING INTENTION

To understand that the growth and survival of living things are affected by the physical conditions of their environment.

SUCCESS CRITERIA

Understand living things; what they are, where we might find them, what they need, what they live in/ on/ under and how they adapt to the physical conditions of their environment.

- 
1. Understanding living things and their being
 2. Explore adaptations
 3. Create our own creatures
 4. Explore different environments that creatures live in.
 5. Create an environment for a creature.

Signatures Page