



**Year 4**

**Who Eats Who?**

**Lesson 1 –What is a food chain?**

# Hobart Zoo and Aquarium

Stuart Webster has been enchanted by animals and zoos since a young age. Growing up with limited means, he found immense joy wandering Melbourne Zoo alone, promising himself that one day he would own one. That promise became his lifelong mission — pursuing the dream through keeping animals and travelling the world to study hundreds of zoos.

His journey was far from simple. After leaving school early and facing addiction and personal hardship, he rebuilt his life, found stability, and created the financial footing that eventually allowed him to buy the dream.



In 2024, Webster purchased Zoodoo Zoo in Tasmania and rebranded it as Hobart Zoo & Aquarium. He has since launched major upgrades, from new exhibits and an aquarium with future plans for accommodation beside the lion habitat and plans for future species including red pandas, otters, cheetahs and eventually gorillas.

Stuart reinvests everything into creating a world-class, welcoming zoo with a team that share his fierce passion for animal conservation and education. He is finally living the dream he held onto for 50 years!

# HZAA Owner Stuart Webster





# Six Pillars of Conservation at Hobart Zoo and Aquarium



## Pillar One

Supporting ex-situ animal populations



## Pillar Two

Educate and inspiring positive change for wildlife



## Pillar Three

Protecting wild species and habitats



## Pillar Four

Enhancing the value of zoos for nature and society



## Pillar Five

Sustaining and caring for our local ecosystems



## Pillar Six

Maintaining environmental sustainability



# What is a food chain?

## Learning Intention

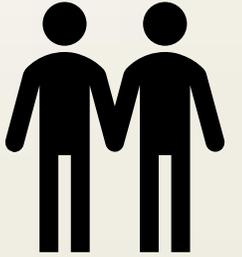
We are learning to understand what a food chain is and the roles of producers and consumers.

## Success Criteria

We will be successful when we can identify producers, consumers and decomposers; explain how energy moves through a simple food chain.



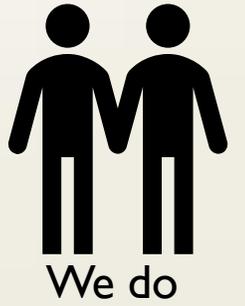
# What do you see?



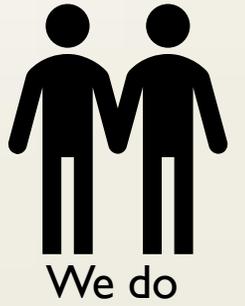
We do



# How are they connected?



# How are they connected?



Leaves



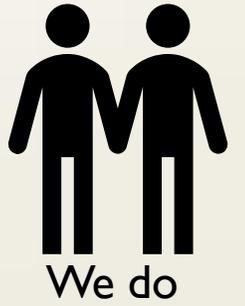
Mealworms eat leaves.



Bolivian squirrel monkeys eat mealworms



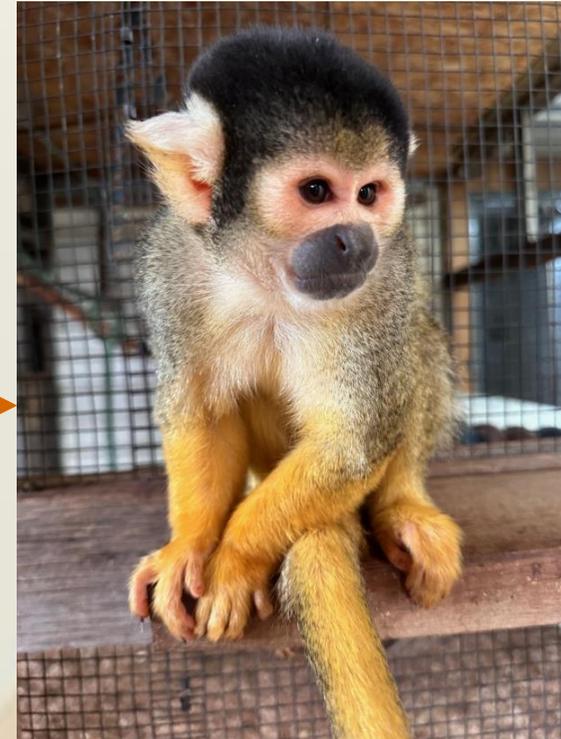
# Food Chain – the flow of energy between plants and animals.



Leaves



Mealworms eat leaves.



Bolivian squirrel monkeys eat mealworms



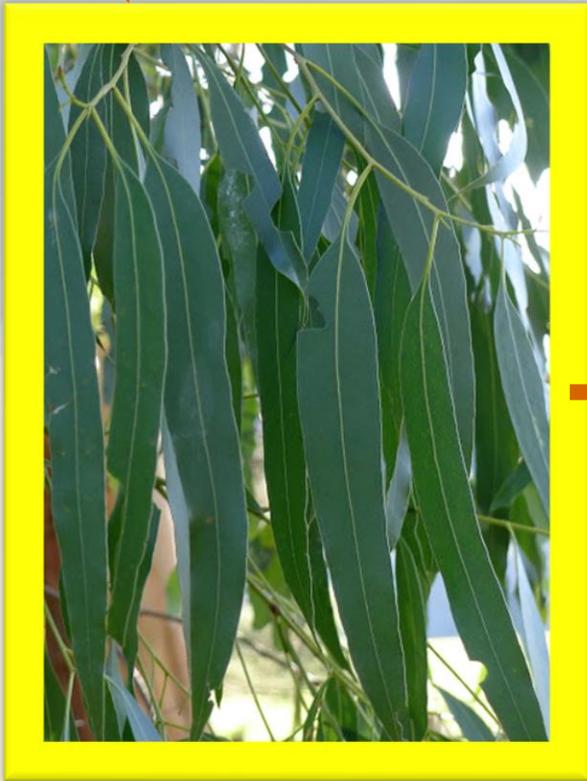
# energy flow



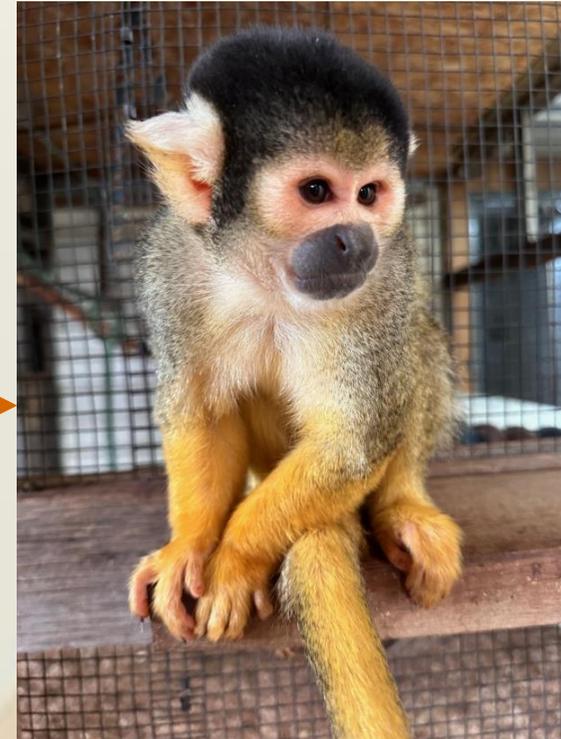
Energy that is transferred from one living thing to another through eating.



# Producer– Gets its energy to grow from the Sun.



Leaves



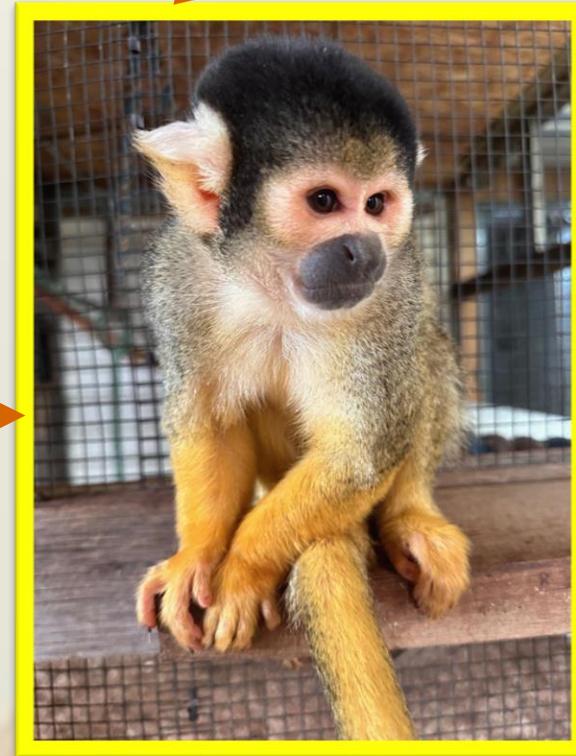
# Consumer— Eats plants or animals to get energy.



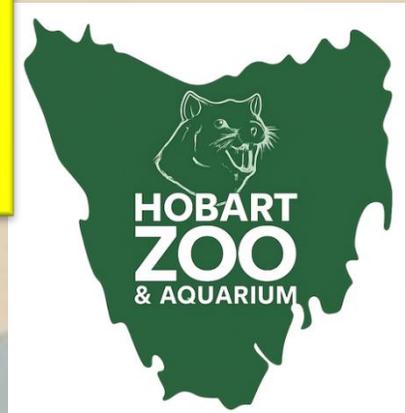
Leaves



Mealworms eat leaves.



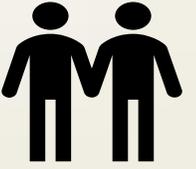
Bolivian squirrel monkeys eat mealworms





**What do  
we call  
animals  
who only  
eat plants?**





We do

# herbivores



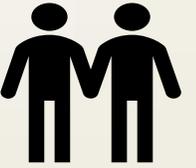
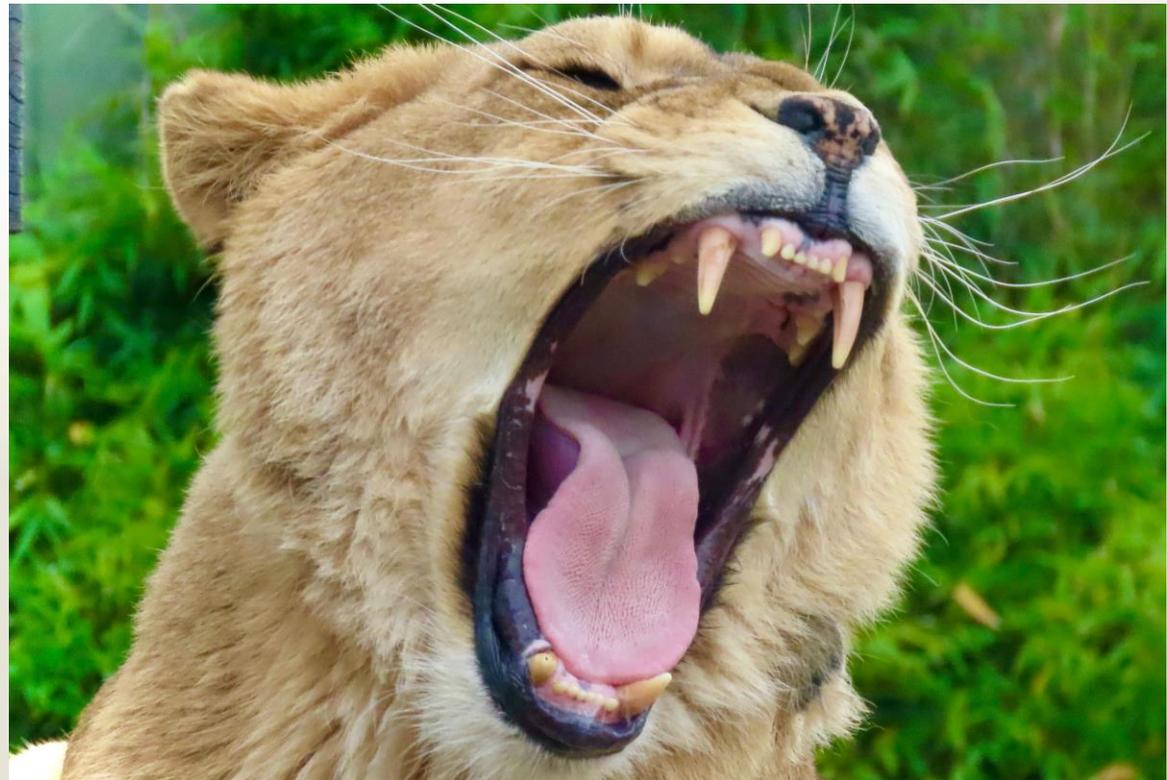
# What do we call animals who only eat meat?



We do



# carnivores



We do



# Food Chains



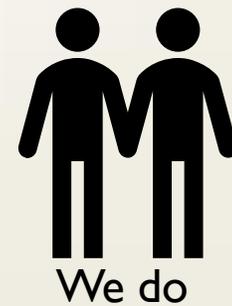
The purpose of food chains is to show what a species eat.

It helps scientists understand how animals depend on each other for survival.



# Sort these living things into producers and consumers.

Challenge: Sort the consumers into carnivores and herbivores.



# Food Chains – Photo Cards

producer		consumer		consumer		consumer
grasses	→	mouse	→	diamond headed python		
grasses	→	kangaroo	→	Tasmanian devil		
apples	→	possum	→	Tasmanian devil		
grasses	→	mouse	→	kookaburra		
grasses	→	rabbit	→	Tasmanian devil		
algae	→	lance fish	→	epaulette shark	→	black tipped reef shark
new seedlings	→	slugs	→	blue tongue lizard	→	kookaburra

(when the kangaroo has died from natural causes or injury)

Climbs trees to eat young possums.



Choose **3 different food chains** from the photo cards to **record** in your **Science book**.

**Include:**

- ✓ name of organism
- ✓ arrows to show energy flow
- ✓ drawing or photo
- ✓ sentence to explain who is eating who

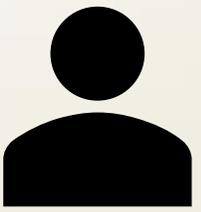


You

Do



# Check for Understanding



You do

**Question 1** Where do producers get their energy from?

**A** plants

**B** sun

**C** water



# Check for Understanding



You do

**Question 1** Where do producers get their energy from?

**A** plants

**B** sun

**C** water





You do

**Question 2 A ..... only eats producers?**

**A** ...carnivore

**B** ...herbivore

**C** ...consumer





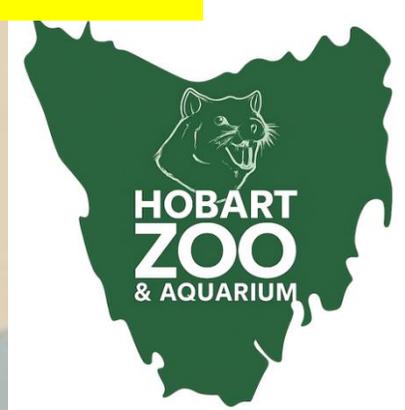
You do

**Question 2** A ..... only eats producers?

**A** ...carnivore

**B** ...herbivore

**C** ...consumer





You do

### Question 3 Choose the food chain that is correct.

- A** slugs – grass – kookaburra – blue tongue lizard
- B** grass – slugs – kookaburra – blue tongue lizard
- C** grass – slugs – blue tongue lizard - kookaburra





You do

**Question 3 Choose the food chain that is correct.**

**A** slugs – grass – kookaburra – blue tongue lizard

**B** grass – slugs – kookaburra – blue tongue lizard

**C** grass – slugs – blue tongue lizard - kookaburra





You do

## Question 4 Decomposers ...

- A** ...make their own energy.
- B** ...eat decaying living things.
- C** ...get their energy from the Sun.





You do

## Question 4 Decomposers ...

**A** ...make their own energy.

**B** ...eat decaying living things.

**C** ...get their energy from the Sun.





## Lesson 2

**We are learning to build and label aquatic food chains.**

# Aquatic Food Chains

## Learning Intention

We are learning to build and label aquatic food chains.

## Success Criteria

We will be successful when we can accurately sequence organisms, label each role, and use arrows to show energy flow.



# organism



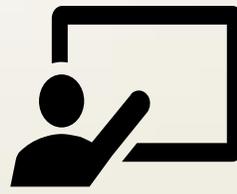
Any living thing.

Organisms can be plants, bacteria, fungi or animals.

Organisms can be microscopic like a bacteria or humungous like a humpback whale.



# aquatic (adjective)



I do

<b>Definition</b>	relating to water
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<b>Example</b>	Aquatic plants grow in water.
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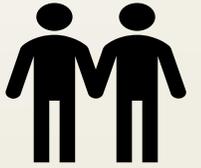
<b>Base Word</b>	<b>Origin</b>	<b>Meaning</b>
<i>aqua</i>	Latin	water



<b>Suffix</b>	<b>Meaning</b>
ic	characteristics of



# aquatic - practice



We do

1. Hobart Zoo and Aquarium is home to a variety of aquatic animals.
2. The Derwent River is a popular spot for aquatic activities like fishing and swimming.
3. Hobart is located on a river and has an aquatic ecosystem at the wharf.



# suitable (adjective)



<b>Definition</b>	appropriate
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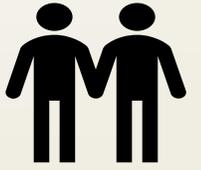
<b>Example</b>	The hat was suitable to wear because it was a hot day.
----------------	--

<b>Base Word</b>	<b>Origin</b>	<b>Meaning</b>
<i>suit</i>	English	fitting

<b>Suffix</b>	<b>Meaning</b>
able	able to



# suitable - practice



We do

1. Those shoes are not suitable for running.
2. Vegetables are a suitable choice to have with dinner.
3. Warm clothes are suitable on a cold day.



# Read

## Year 4 - Freshwater Food Chains

Aquatic plants use sunlight to make their own food, so they are producers.

Worms often graze on algae and soft plant matter from rocks and leaves. This makes them plant-eating consumers.

Energy moves from plants to aquatic worms when they feed on the algae. Then to the platypus who searches bottom of Tasmanian rivers and waterways for insects or worms to eat using its bill. This makes platypus carnivore consumers.

We show the flow of energy with arrows. Energy passes from the plants to the insects, and then to the platypus.



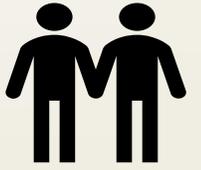
At **Hobart Zoo & Aquarium**, keepers use food chain information to plan suitable diets. It also helps them to know which animal species than can put in the same habitat without one being eaten, this is especially important in aquariums.

Scientists use food chain information to make decisions to support animals in the wild as their habitats change and when new species are introduced to areas.



We do





We do

# Aquatic Food Chains

Brainstorm possible aquatic food chains with your partner.

algae → seahorse → octopus → shark →



# Aquatic Food Chains – Task



You Do

- Use the internet to research information for 2 aquatic food chains.
- Record this to share with your class.

## Include:

- ✓ name of organism
- ✓ arrows to show energy flow
- ✓ drawing or photo
- ✓ sentence to explain who is eating who



# Share your food chains with a partner.



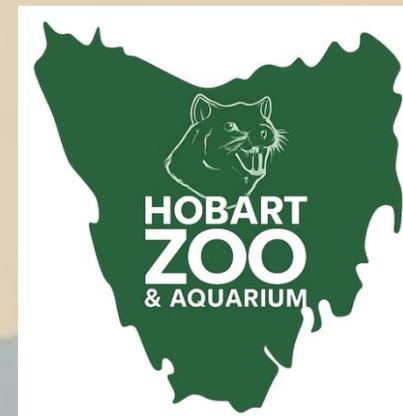


# Excursion Time



Now, it's time to get ready  
for your excursion to  
Hobart Zoo and Aquarium!

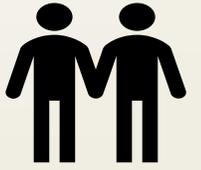
See you soon!





## **Lesson 3**

**What are decomposers and how do they fit in food chains?**



We do

**Tasmanian Devils clean up dead animals by eating them.**

**What cleans them up if there are no Tasmanian Devils?**



# What did we learn about Tasmanian Devils at Hobart Zoo and Aquarium?



# Tasmanian Devil

SARCOPHILUS HARISII



## Australia

### RANGE & HABITAT

Tasmanian Devils once roamed across mainland Australia, but are now found only in Tasmania. They live in a variety of habitats, including dry forests and coastal shrubland. In 2020, 26 Tasmanian Devils were released into a protected area in New South Wales.

### DIET

Tasmanian Devils are primarily scavengers and feed on any carcasses they come across, these are usually mammals, birds and reptiles. They have very strong jaws, allowing them to bite through bones, and can consume up to 40% of their bodyweight in one sitting.

### SOCIAL STRUCTURE

Tasmanian Devils are usually solitary, only coming together to breed and to fight over food. Females give birth to up to 40 joeys at once, but can only rear four. Joeys stay in the pouch for around four months, and after exiting they will ride on their mother's backs.



Tasmanian devils get the most scratches on their white markings when they fight. Scientists think the white spots act like targets, keeping their important organs safe!

EXTINCT - EXTINCT IN THE WILD - CRITICALLY ENDANGERED - **ENDANGERED** - VULNERABLE - NEAR THREATENED - LEAST CONCERN



# How do Tasmanian Devils contribute to the Tasmanian ecosystem?

## Learning Intention

## Success Criteria

We are learning to understand the role of decomposers.

We will be successful when we make a labelled scientific chart to show the flow of energy in a food chain that includes decomposers.





We do

# What cleans up dead plants?



# Decomposers

They break down dead plants and animals to get energy.

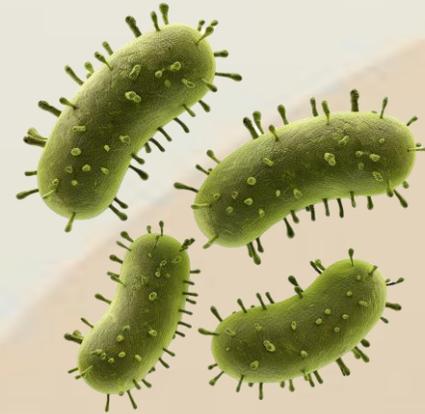
They release energy back into the soil to give energy to producers so they can grow.



fungi



worms



bacteria

# KNOW - WANT TO KNOW - LEARNED



Topic:

How do decomposers fit in food chains?



## Know

What do you know about the topic?



## Want to know

What would you like to know about the topic?



## Learned

What have you learned about the topic?



# KNOW - WANT TO KNOW - LEARNED



Topic:

How do decomposers fit in food chains?



## Know

What do you know about the topic?



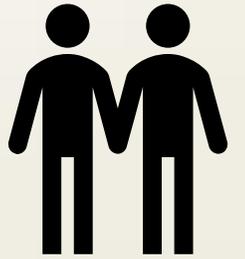
## Want to know

What would you like to know about the topic?



## Learned

What have you learned about the topic?



We do



# Video – What are Decomposers in a Food Chain?



Click on photo for link to website for video.



# Where do decomposers fit in the food chain?



- Complete your KWL chart.
- Choose one of the food chains in your Science book.
  - Update it to include a decomposer.



Share your updated food chain with a partner.  
What new things have you learned?  
Share the final column in your KWL chart.





## **Lesson 4**

# **How do Tasmanian Devils Contribute to the Tasmanian Ecosystem?**

# How do Tasmanian Devils contribute to the Tasmanian ecosystem?

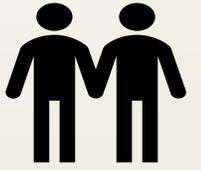
## Learning Intention

## Success Criteria

We are learning to explain how the Tasmanian Devil food chain helps the Tasmanian eco-system.

We will be successful when we explain a food chain for the Tasmanian Devil and how they help the Tasmanian bush habitat.

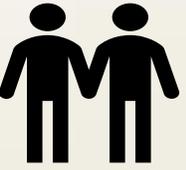




We do

# What do Tasmanian Devils eat?





We do

# How do they source their food?

roadkill



climb trees for small possums



eating animals that have died in the wild



# scavenger



Means to find food that is ready to eat. They do not need to hunt and kill it.

Scavengers in the wild eat animals that have died.



David Attenborough Presents: Tasmania - Weird & Wonderful  
| Free Documentary Nature



Watch from the start for 6 minutes to learn about how  
Tasmanian Devils support the natural ecosystem.



# Save the Tasmanian Devil



- Tasmanian Government
  - Department of Natural Resources and Environments Tasmania
  - Track and monitor Tasmanian Devil populations in the wild and recovery efforts.

## Tasmanian Devil Information for Kids



# Save the Tasmanian Devil



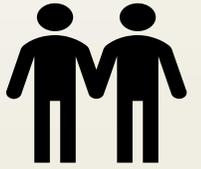
- We will locate literal information from the website to explain the Tasmanian Devil Food Chain and how it helps the Tasmanian Bush Habitat.

## Tasmanian Devil Information for Kids



← Click the picture to head to the website.





We do

# Save the Tasmanian Devil

Only write facts about:

- their food chain
- they help the Tasmanian environment

## Tasmanian Devil Information for Kids



← Click the picture to head to the website.





# Your Task

- Construct a labelled food chain for the Tasmanian Devil.
- Write a paragraph to explain how they help the Tasmanian bush habitat.

## Include:

- ✓ name of organism
- ✓ arrows to show energy flow
- ✓ drawing or photo
- ✓ paragraph
- ✓ vocabulary
  - ✓ producer
  - ✓ consumer
  - ✓ decomposer
  - ✓ scavenger

