Science for families

Biological sciences

Pet project

F-Yr 2





Paper, pens, markers,







Preparation

- Decide on a pet the student can observe (the child's pet, or a pet of a friend/relative that can be observed via a video call).
- Print/ copy the task sheet *QR* create a copy on A4 paper or in a scrapbook.

Purpose

- Observe characteristics of a pet.
- Record and discuss ideas about the needs of animals.

Description

- 1. Student observes a pet for as long as they can e.g. 10 minutes, or several times over a day or a week.
- 2. Student creates an ideas map by writing and drawing observations about a pet, including where and when the pet sleeps, how the pet interacts with other members of the family, who looks after the pet, what the pet eats and drinks, usual and unusual habits of the pet.

Optional: take photos of the pet exhibiting different behaviours (eating, drinking, playing etc)

Animals, including humans, need oxygen to live. Land animals get oxygen from air. Aquatic animals use oxygen that is dissolved in the water they live in. Animals need a source of food. This provides them with energy and nutrients to maintain their bodies. This maintenance includes repairing and duplicating cells. Animals can get some water from their food but usually need to take in water separately if this is insufficient. Depending on the animal and the environment they live in, they might also need shelter. All animals need space in which to exist and grow. They also need room to move and an environment in which to find their sustenance.

Humans are classified by scientists as mammals, which are part of the animal kingdom. While there are differences between humans and other animals, it is important to recognise that there are also many similarities.

EXAMPLE:

Information for parents about animals and what they need to survive.



Pet project

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Before the task

- Explain that the student will use drawings and words to record their observations. and information about a pet.
 - If you don't have a pet, discuss how best to approach this task e.g. you might ask a family member to connect via video and watch footage of their pet on a device.
 - If you have more than one pet, agree on which pet will be best suited to be observed e.g. you might choose the pet that is active and responsive so that lots of observations can be made.
- Ask students what they think the pet needs to stay alive. Support the student to write or draw their responses.
- Just like scientists would before working with animals, discuss a 'code of conduct' for example: look and don't touch, leave the pet if it is sleeping, wash your hands before and after touching the pet, be gentle with the pet.

After the task

- When students have created an ideas map about the pet (see task sheet), discuss:
 - What do you think the pet needs to stay alive?
 - Why do you think it need those things?
 - What do you think would happen if it didn't have those things?
 - Is there anything else you think the pet needs to stay alive?
 - How does it keep safe?
- Students can add to their ideas map if new ideas are discussed.
- You may wish to share your ideas map, observations, and the photos and drawings of your pet with others (classmates, teacher, family members).

Explore some more

- · Observe other animals. Some Australian zoos have set live stream cameras Zoos Victoria https://www.zoo.org.au/animals-at-home/ Taronga Zoos https://taronga.org.au/taronga-tv Zoos SA https://www.zoossa.com.au/zoo-to-you/
- Draw a table with two columns with the headings 'Pet' and 'Person'. Support students to write and draw their responses to What do you think they need to stay alive? Wherever possible, use pictures to illustrate text to support literacy learning.
- Building on students' observations about the needs of the pet, ask them to create (or to help an adult create) a family pet care roster for tasks such as refilling the pet's water refilling the pet's, food and cleaning the pet's shelter.

F	Pet		Person
vater 0	food	Food	a house

EXAMPLE:

A sample of a 'Pet' and Person' table.



Be aware of student allerg es to certain animals





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Pet project

Name:	Date:

Introducing 'Pet project' task

Students will be exploring the needs of living things in the context of a pet.

Students will learn about the pets that they have at home, or observe a relative's of friend's pet via video call.

Tasks to do

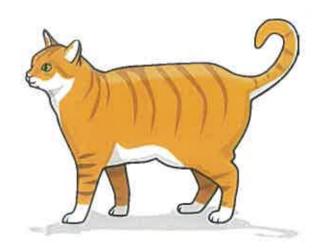
Each student will record information about a pet on an Ideas Map, such as:

- drawings of their pet
- where and when the pet sleeps
- how the pet interacts with other members of the family
- who looks after the pet
- what the pet eats and drinks
- unusual habits of the pet.



Images
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If possible, please take photographs of the pet, including its space for feeding and rest.

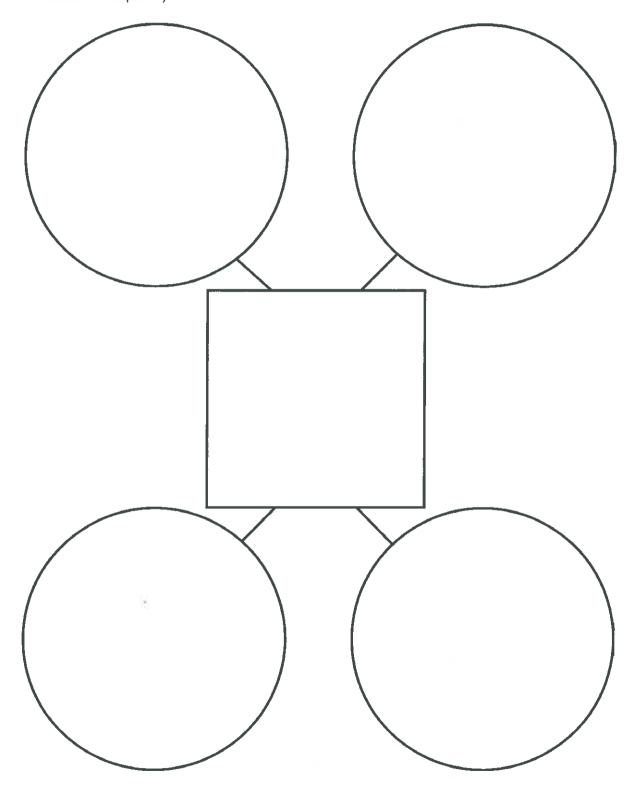


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Ideas map: about a pet

ĺ	Name:	Date:	
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(Draw more circles as required)



Push-pull pursuit

F-Yr2











Preparation

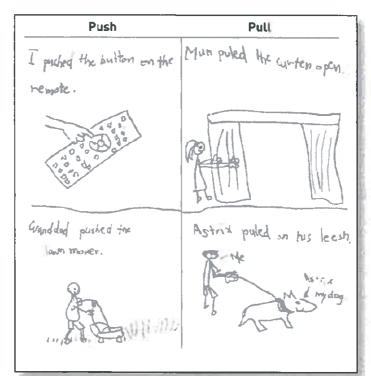
- Print/ copy the task sheet OR
- Create a copy on A4 paper or in a scrapbook

Purpose

 To identify pushes and pulls at home, share learning experiences, and record words students know or learn about how objects move.

Description

- 1. Students explore objects around the home that need to be pushed or pulled to make them move. Some pushes and pulls that might happen at home include: a wheelbarrow being pushed along in the garden, doors that open or close when they are pushed or pulled, or zippers on clothing being pulled up or down.
- 2. Students create a summary of objects using Push and Pull as categories by completing the 'Push pull pursuit' task sheet.



EXAMPLE:

A 'Push pull pursuit' task sheet completed at home.



Push-pull pursuit

F-Yr2

Before the task

- Find out what students think they know about how objects move. You may wish to use these questions to guide you.
 - How do you think objects move?
 - What might we do to make objects move?
 - What do you think happens when objects move?
 - How might we describe how objects move?
- View the video 'Pushing and pulling' (3:18) with the student:
 http://www.stem.org.uk/resources/elibrary/resource/32044/pushing-and-pulling
- Discuss what the student thinks they know about the pushes and pulls in the video.
- Explain the Push-pull pursuit task by brainstorming places that could be investigated such as, the kitchen, the backyard, the living room, while on a walk, in a car, on a bike, pram or scooter.

After the task

- You may like to re-view the video (optional).
- Using the completed task sheet, discuss the pushes and pulls identified by the students.
- Create a list of words used or heard in a scrapbook or other.
- You may wish to use these questions to guide you.
 - What was your favourite thing about this activity?
 - What did you find challenging or tricky?
 - What pushes did you notice?
 - What can you tell me about these?
 - What pulls did you notice?
 - What can you tell me about these?
 - What else did you notice during the Push pull pursuit?
 - How do you think objects move?
- You may wish to share the sheet with others.

Explore some more

Explore some toys - What different ways can you push or pull toys to make them move from one place to another? Use pictures and words to show what you did.

Push or pull	Example
Pull (contact force)	Opening a door towards you
Push (contact force)	Throwing a ball
Pull (gravity)	Dropping a pen
Pull (magnetic force)	Magnet attaching to a fridge
Pull (contact force)	Towing a car
Push and pull (contact forces)	Twisting a tap on.

EXAMPLE:

A table of some common examples of pushes and pulls.



Ask students to be careful while they are investigating and not to push or pull things that are fragile and/or too heavy or dangerous, such as chemical containers, tools or appliances.





Science for families	Physical sciences
Push-pull pursuit	F- Yr 2

Information note for families

4		
	Name:	Date:
Į		

The 'Push pull pursuit' task

During our science time at home, we will be observing how a push or a pull affects the way an object moves. We will learn new words and share our ideas, thinking and learning.

Some pushes and pulls that might happen at home include: a wheelbarrow being pushed along in the garden, doors that open or close when they are pushed or pulled, or zippers on clothing being pulled up or down.

We will complete the resource sheet 'Push pull pursuit'. We will draw (or photograph) at least two objects at home being pulled to move and two objects at home being pushed to move.

Optional: We might share the completed activity with our teacher or classmates.



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Science for families	Physical sciences
Push-pull pursuit	F-Yr2

Name:	Date:

Find objects that you push or pull to make them move.

Write, draw or take a photo of what you find. Add it to the T-chart below.

Push Pull

See the cat

I can see the cat. The cat is fat. The cat has a hat.



1

I can see the

dog

rat

cat

2

The cat is

sad

big

fat

3

The cat has a

mat

hat

ball

The van

I can see the van.

The cat is in the van.

The cat had a nap in the van.

1

I can see the

car

van

tree

2

In the van is a

cat

pan

pat

3

The cat had a

hat

nap

bee

READ THE STORY, THEN SELECT THE CORRECT ANSWER.

STORY 3

Bob

I am Bob.

Bob can hop.

Bob can see the cat.



I am ____

Ted

Bob

Meg

2

Bob can

run

top

hop

3

Bob can see the

cat

dog

ram

His or hers?

This is the princess and this is her horse. This is the prince and this is his game.

1

The princess has a

game

horse

ring

2

The prince has a

game

horse

ring

3

He likes _____ game.

her

it's

his



Pink rocks

Look at my bag of rocks. They are for my fish. They are little and pink.

1

I got a bag of ____

socks

rocks

fish

2

The rocks are for my

socks

rocks

fish

3

The rocks are little and

fish

pink

big



Harry

Harry is a horse. He can run and jump. He is a very happy horse.

1

Harry is a ____

bossy

jump

horse

2

Harry can run and

swim

jump

very

3

He is very

jolly

happy

hippy