Home Learning TV – Junior Science

 

|  |  |
| --- | --- |
| **Segment lesson planning details** |  |
| Title for segment: | Our pets  |
| Year levels *(e.g. Yrs1 – 3)*: | 1-3 |
| NZC learning areas:  | Living world (classification) and nature of science (communicating in science) |
| Purpose of lesson:(What learners will learn) | Living things can be grouped by observing their key features. |
| Success Criteria – students will be able to:(how they will know when they have learnt it) | * begin to classify well-known animals as vertebrates, non-vertebrates
* interpret a simple classification key
 |

|  |
| --- |
| **Segment content/context details *(as appropriate)*** |
| Māori specific content i.e. the learning draws on Mātauranga Māori: | Māori content is centred on inclusive language. | Pacific specific content i.e. the learning is focused on Pacific knowledge: |  |

|  |
| --- |
| **Segment production details** |
| Equipment requirements: | screen for displaying video and images, your pet axolotl, paper and felts for drawing a dog |
| Copyright requirements:Please be specific: Source(*Seven Sizzling Sausages* by Sam Smith –url link to the source), intended use (to demonstrate alliteration), and length (timings for video clips) |  |
| **Segment links and attachments *(list all links to recordings or attachments, the source and confirm that copyright permissions are granted)*** |
| Links to recordings /resources |  |
| Attachments  |  |
| **Segment plan content**  |
|  | Teaching and learning activities linked to purpose | High level script (key points/questions)  |
| **Activate**: Activating prior learning, knowledge of contexts and relationships02:00 mark | Linking with the previous episode.Connecting with the learners and their experiences. | [Greetings in multiple language][Touch base with audience if they’ve sent in texts or emails] Last time, we talked about different ways of cooking, and how cooking can be an important part of how we connect and spend time together as whānau and families. Today, we’re going to be talking about pets. Pets are important members of our families, if we have them. They can also be part of our identity – for example, you might think of yourself as a dog owner or a cat lover. Hey, do you have a pet? What about someone you know? Do they have a pet? Your grandparent (koro or kuia) , or aunty (whaea kēkē), or friend? What pets do they have? Pets can come in all shapes and sizes.[Show images that you’ve received via your FB page of children with their pets - hopefully there is a wide variety.]I’ve heard that pets are really loving everyone being at home so much. What do you think? If you have a pet, have you been spending more time with it and helping to look after it?[Talk about the different pets you’ve had, including Jeffry, the beautiful dog in your video - and then your axolotl - make a comment about what you think he/she thinks about your family being at home more. Comment on things like differences in pets you’ve had as a segue into grouping/classifying pets.] |
| **Learn**: Introducing learningReinforce routines, provide multiple exposure to concepts, and strategies. Scaffolding learning This part should take about 5 minutes07:00 | Linking to students’ prior knowledge about classification.Presenter introduces new learningPresenter uses a Think Aloud to explain why she is grouping the images into groups.Common characteristics of mammals. A small classification grouping within mammals - the family | We’ve just discovered that animals can be quite different. As a matter of fact, scientists put animals into classes. No - not classes like school classes. A class is a way to group animals that are alike in really important ways. The groups have common characteristics or features. What do I mean by common characteristics? Let’s think about the kind of pets that people have. Here are some of the photos. Let’s see if we can put them into groups based on things that are similar about them [Groups will be: mammals (whāngote), fish (ika), birds (manu), lizards, amphibians (ika oneone).] [Images to be supplied.] [Please check maoridictionary.co.nz for pronunciation support.][While looking at the images, Suzy discusses the attributes: number of legs, fur, feather, scales, skin, etc.]I’ll out these ones together because….And these ones together because…. Eventually the images are grouped into the 5 groupsLet’s take a look at one of these groups more closely. Many of us have cats and dogs and even calves and goats for pets - they belong to the group called mammals - whāngote.Mammals have common characteristics:* covered in fur or hair
* they drink milk from their mum’s as babies
* they are warm blooded - they can regulate, or control their body temperature and keep themselves warm
* they most often have 4 legs (but not all - whales and humans are mammals)

Wow - that’s still a big group. Let’s look at one type of mammal and see if we can make the group even smaller. Let's look at this photo. What can you see? What are your observations? [Discuss similarities and differences.] Scientists call this a **family** of animals. The family is Canidae - which is a latin word for dog. Each of these animals is like a dog. Can you help me figure out which ones are dogs and which ones are dog-like?If we wanted to, we could make more observations and split the dogs into smaller and smaller groups based on their shared characteristics. You might know these groups by the names they’ve been given: golden labrador, chihuahua, or beagle. [Images to be supplied.] They are all dogs but they are quite a bit different from each other.So, can you see we group living things into classes according to what is the same about them, their characteristics or features. |
| **Respond**: Providing opportunities to use and practice This part should take about 6 minutes13:00 minute mark | Practising grouping non-mammalian pets.Presenter shares the chart so learners can interpret a classification key (science capability ‘interpret representations’)Vertebrate/non-vertebrate classificationVertebrate sub-groupsClassifying the axolotlPresenter revisits the classification keyPresenter refers to Invertebrates on the chartPresenter recaps the learning that scientists classify living things using featuresSummary of key classification groups | We’ve looked more closely at one group of pet mammals - dogs. So, now I wonder where my axolotl fits in? Or your pet budgie? Or your tank of goldfish? How would scientists group them?Let’s take a look at this chart. This shows how scientists classify or group animals.[Image to be supplied][https://www.123rf.com/stock-photo/animal\_classification.html?sti=lixsowfmlks7k5n3cd|&mediapopup=80712766](https://www.123rf.com/stock-photo/animal_classification.html?sti=lixsowfmlks7k5n3cd%7C&mediapopup=80712766)The first way to group animals is whether they have a backbone or not. Scientists call this group vertebrates. A simpler word for vertebrate is backbone.Can you feel your backbone? Run your hand up and down your back - like this [demonstrate]. That’s a backbone - tuaiwi. If you have a pet cat or dog nearby, see if you can feel their backbone? Pat them gently and you will be able to feel it. [Point out the backbone on a dog image - to be supplied.]Within the vertebrate grouping, we can group animals depending on whether they are cold-blooded or warm-blooded. We’re warm blooded - our bodies have ways to control our temperature. Fish, reptiles and amphibians are cold blooded. That’s why you often see reptiles out sunning themselves - they’re warming up. They’re also more sluggish - don’t move as much or as fast - when it’s cold. Do you know any others we could put on our list?What are some differences you can think of between warm blooded vertebrates? That’s these two groups. What do you notice in this chart?We’ve got mammals, and we’ve got birds. I’m sure you know some key differences between these groups. Well?That’s right - birds have feathers, and they lay eggs.What about these groups?FishReptiles Amphibians? Again, I’m sure you know a lot about some of them. You might have studied them at school.Some people find it a bit tricky to group reptiles and amphibians, though. One difference is their skin - amphibians have smooth, sticky, moist skin, whereas reptiles have dry, hard and scaly skin, which guard them in harsh condition. Amphibians also lay their eggs in water, while reptiles lay their eggs on land, and have a hard protective shell.So thinking about those differences - what do you think my axolotl is? Well - it lives in water, but it’s not a fish. It’s not covered in scales, either - it’s got a smooth, jelly-like skin. [Axolotl close ups]What about … a blue tongued lizard. Some people have them as pets! [Image to be provided.]Their name kind of gives away their grouping, doesn’t it?Let’s go back to our chart.Can you see where your pet might fit on this chart?Animals that don’t have a backbone are called **invertebrates**, tuaiwi-kore. Remember the praying mantises - rō, and earthworms -noke we met in other episodes? They don’t have backbones. So they are called invertebrates.[Please check maoridictionary.co.nz for pronunciation support.]Often, pets are vertebrates, but some people have invertebrates for pets, too.Some people keep insects or worms as pets. They’re not the kind of pet that you have in your bed with you at night - but neither is my axolotl! Having insects or worms as pets can be a great way to observe them and learn more about them, though.[Show your praying mantis in its terrarium.]Together, we’ve talked about how animals can be grouped. We’ve learned that one of the key differences that scientists use to classify or group animals is whether they have a backbone or not - this creates the vertebrate and invertebrate groups.[Re-sort images from earlier in the segment]**Vertebrates** can be: mammals (whāngote), like a dog, cat or a mouse or fish (ika), birds (manu), lizards, amphibians (ika oneone). My axolotl is an amphibian, ika oneoneWhatever pets we have, we need to make sure we look after them!! They need to be kept safe, and to be fed. Pets like dogs and cats also need loads of attention, and dogs need to be taken for walks. |
| **Share**: Learner and parent reflection on learning and engagement and what they can do next | [Suzy, with her axolotl]Suggestion of a game for ongoing learning.  | Hey - one of the things you could do is write or draw a whole lot of different animals down on squares of paper and play a sorting game with your whānau - or you could play snap, memory or some other card game with the cards that you design. You might choose vertebrates or invertebrates for your game.Thanks for joining me today for our kōrero about how living things are classified into groups and how different animals are kept as pets. I loved getting those photos of you with your pets, and I’ve had fun introducing [axolotl] to you, too.I’d love to see a photo of you having fun doing this, or you can share a photo with your teacher. Remember to Text 5811, email info@hltv.co.nz, FB page if using keyword: pets][Sign off in multiple languages] |