

Animal Census Activity Guide

Activity:	Animal Census
Key Concepts	• Data collection • Animal population assessment • Desexing for population management
Suggested Year Levels	Year 7 - 12
Duration	30 minutes
Learning Objectives	By the end of the lesson, students should be able to: • Explain the purpose of conducting an animal census. • Collect and accurately record animal census data. • Compare animal population data collected over three census periods. • Explain how desexing programs influence animal populations over time. • Describe how census data helps communities plan animal health programs.
Pre-Requisite Learning	Before utilising this lesson, students should have a basic understanding of the term ‘desexed’, what an animal census is, and why we conduct them. <i>Example description for animal census is provided below.</i>
Required Resources	• Animal Census Map (Appendix A) ○ Animal Census Counters ○ Animal Census Counter Bags (or plastic containers) labelled; Start, Population, & Vet Visit (Appendix B) • Animal Counter Key (Appendix C) • Animal Census Recording Sheet (Appendix D)
Additional/optional resources	• Cat and Dog Census - PowerPoint • Animal Census – Digital lesson plan • Informed Consent Animation
Date of Last Review	July 2026



Census Description:

What is an animal census?

An animal census is where the cats and dogs are counted at every house within a community.

What information is collected?

The individuals recording the information during the census record health information for each animal. These include the animal's reproductive status (Are they desexed? Yes or no), body condition (weight), parasitic burden (number of fleas and ticks seen), and skin condition (level of hair loss).

Why do we collect it?

The data collected throughout a census helps give the visiting vets an indication of the general health and needs of the animal population within the community.

Conducting an animal census is an important part of managing the animal population and health in communities.

Activity Preparation

This activity requires the use of physical resources.

It is recommended to organise the resources and create the census map in advance of undertaking this activity.

For instructions on creating your census map please see our guide [here](#)

Introduction

Materials required - Nil

Prior to starting the activity, it could be helpful to explain to students that animal censuses help communities understand the health of their dog and cat populations and that this information helps communities and visiting veterinarians plan animal health programs, monitor changes over time, and improve animal welfare.

Suggested questions for the students;

- Begin by asking students the following questions:
 - How many dogs do you think are in your/our community?
 - Do you think there are more male or female dogs?
 - Are many of the dogs in your/our community desexed?
 - Does anyone know how we could determine the number of dogs there are in your/our community?
 - Why do we need to know how many dogs are in the community and their reproductive status?
- Discuss the students' responses.



- If not completed prior to the lesson, explain here what an animal census is and why it is important using the information provided under 'Pre-requisite Knowledge'
- If you covered this prior to the lesson, hold a quick revision discussion before proceeding.
- Highlight that an animal census follows a clear set of procedures that are carried out in a particular way to ensure consistency and accuracy with the data (information) recorded.
- Next, inform the students that they will be practising how to undertake an animal census using counters and a map - see [Appendix A](#) for a demonstration image of the map.

Instructions

Materials Required:

- Census Recording Sheet
- Census Animal Key
- Census Map
 - Animal Counters
 - Animal Counter Bags or containers
- Have the students gather in the classroom on the floor space or an open area in a circle.
- Lay the census map in the middle of the circle, ensuring everybody can see all map sections.
- Explain to the students that the map is a bird's eye view of the community in which they will undertake a census.
- Tip the container labelled 'START' across the map and explain that these counters represent the dogs within the community.
- Pose the following questions to students:
 - How could we find out how many dogs are in the community in a real-life situation?
 - What methods could we use to achieve this?
- Allow time for students to share their ideas.
- Inform students that an essential outcome of undertaking an animal census is finding out how many dogs within the community are either desexed or undesexed (entire).
- From here, begin walking students through the below method of collecting data for an Animal Census.

The Census: Term 1

- Display the Animal Census Recording Sheet.
- Explain that each coloured counter represents a dog, its sex and whether they are desexed or undesexed (entire) – their reproductive status. For example, a red counter means an entire (undesexed) female dog, whereas a yellow counter represents a desexed female dog ([see Appendix C for full key](#)).



- Ensure that students are clear on the colours and their representations. If possible, print and display the key for students to refer to as needed.
- Inform students that they will use the provided recording sheet to count and record the dogs (counters) on the map. Emphasise that all recording needs to be completed under the appropriate headings on the sheet.
- Divide the students into four equal groups and assign one colour to each group.
- Emphasise that this census is being undertaken in Term One of the school year.
- Explain to the students that the arrows on the map illustrate the path and direction they need to follow. Students must start where the map is labelled 'START' and end where the map is labelled 'FINISH'.

Counting the dogs

- If a dog (counter) has landed inside a 'house', we cannot count this dog. You will have coloured all of the houses and buildings in a solid colour. This indicates that the dog is inside a solid structure, not visible, and therefore cannot be included in the count.
- Emphasize to the class that if we were to undertake a real census in their community, we would not be able to count dogs inside houses as we would have no way of knowing they were there unless they were explicitly shown to us by the owner. Even if we could hear them we would not know what sex they were or their reproductive status.
- If a dog (counter) is on the outline of a house or building on the map, we can count this. Explain that this is because the dog may be looking out of a window, or the front door could be open, and we can physically see the dog.
- Ensure the students have understood the above information. Allow time here to go over any sections that may need reiterating.
- Next, instruct groups to begin counting their allocated counter colour. Ensure they are only counting those dogs in areas that they can see.
- Once all groups have counted their allocated dogs, ask students to record their number horizontally (under the correct colour) on the Census Recording Sheet in T1 (term 1) see appendix D.
- Once all groups have counted and recorded their allocated colours, ask each group to share their count with the whole class so that the other groups can fill this number in on their recording sheet. If you have a whiteboard present, write each score up on the board to help ensure accuracy for each group. Next, ask groups to add up the total number of scores for T1 and record this in the 'Total' column.

Term 2 Census:

Suggested questions for the students;

- Do you think there will be more or fewer dogs?
- Discuss student responses

Set the scene: It's after the term 1 holidays now and people have returned with more dogs plus, the entire female dogs in community have had puppies so it's time to do another count.



- Leave all existing dogs on the map. Add the counters from the **POPULATION** container to represent puppies born and new dogs entering the community since the previous census.

We now have new animals in the community; we need to do another census and record our results on the Animal Census Recording Sheet for Term 2 (T2).

- Students will now repeat the census and count all dogs currently visible on the map.
- Allow the students time to count their allocated counters again and record their new totals in T2. Ensure that all groups' numbers are recorded.

Term 3 Census – Final Census and Veterinary Visit

Set the scene: Inform students that we are now in Term 3, and the vets have come to the community. You could explain that they have come by request of the community council, as members of the community were unhappy with the number of dogs.

Suggested teacher question:

- What do you predict will happen after the veterinary visit?
- Discuss student responses
- Explain that in the next part of the census, students will be acting as Animal Management Workers- collecting dogs from around the community to be desexed (have an operation, have surgery etc).
- Explain that students can only take red and blue dogs to the vet as they are the entire dogs that need to be desexed.
- Ask each student to remove 2-3 red or blue counters from the mat.
- Explain that when our dogs visit the vet for desexing procedures, they need to return home afterwards to be cared for.
- Using counters from the '**VET VISIT**' container, students must now 'return' the dogs they took from the mat (to have their desexing operations) and return them to their families in the community.
- Allow students to take 2-3 counters from the '**VET VISIT**' container/zip-lock bag and return them to the mat (ensure students only replace the same number of counters they initially took and colours that represent the dog's new reproductive status).
Example: If students remove three green counters (entire male dogs), they should replace them with three blue counters (desexed male dogs).
- Explain to the students that the vet program is now finished, and we must conduct another census to work out how many dogs we have and, most importantly, how many dogs in the community are now desexed.
- Each group can now walk the path again and count their allocated counters, recording this number for the last time on their recording sheets in T3.
- All columns on the recording sheet should now be complete (including the totals column).



Conclusion

Suggested teacher questions:

- What happened to the population between each census?
- Why did the numbers change?
- Which dogs changed colour?
- Why?
- Why is recording data important?
- How might vets use this information?
- What would happen if no census was conducted?
- What other information could we collect during a census?
- Discuss responses

Extension activity

- Creation of simple bar graph of each terms results reinforcing numeracy, data interpretation and trends over time.

Suggested extension activity questions:

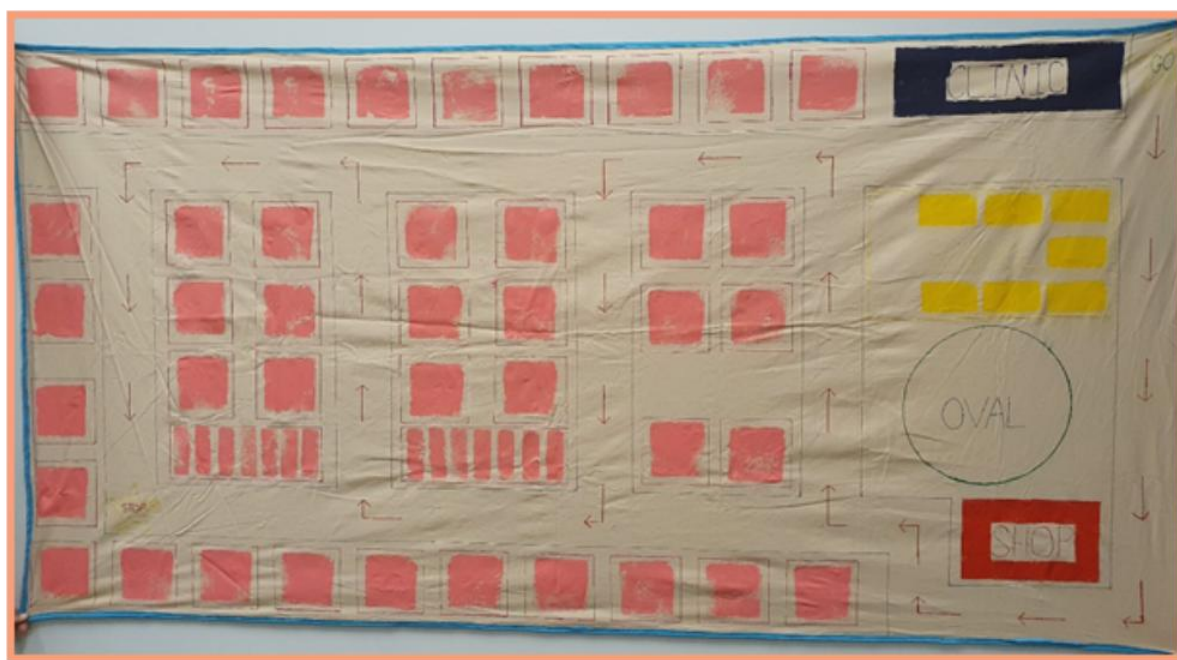
- What factors besides desexing could influence the number of dogs?
Possible answers could include disease, moving communities, adoption, births and deaths.
- If you were presenting the census results to the Community Council, what would you recommend based on your findings?

Appendix (A, B, C, D)



Appendix A

Animal Census Map (Demonstration image)



Appendix B

Animal Census Counter Bags (Demonstration image)



Appendix C

Animal Counter Key (Print)

- **Entire**= an undesexed animal.
- **Desexed** = an animal whose reproductive organs have been surgically removed by a vet.



= Entire female dog



= Desexed female dog



= Entire male dog



= Desexed male dog



Appendix D

Animal Census Recording Sheet (Print)

Term	Red (Entire Female)	Yellow (Desexed Female)	Green (Entire Male)	Blue (Desexed Male)	Total
• T1	•	•	•	•	•
• T2	•	•	•	•	•
• T3	•	•	•	•	•



Census Map - Resource Creation Guide

Materials List

Census Map ([appendix A](#))

- 1 x single sheet of paper or material (2m x 1m)
- 1 x metre ruler
- Fabric Paint (your choice of colour)
- 1x square sponge
- Permanent markers
- 3 zip lock bags
- Red, green, yellow and blue counters

Census Map and Counters: Instructions

- Start by cutting your material of choice to size (approx. 2m x 1m).
- Next, use a lead pencil and meter ruler to design your community layout. You can design your community in whatever way you see fit and you might like to replicate the community you are in.
When creating your community ensure to include the following:
 - A road that runs through the map as this will be the transect by which students will 'walk' to record the dogs (counters) in the community.
 - Houses that are squares or rectangles for clear indication (refer to image in Appendix A for an example layout).
 - Other buildings incorporated into your map may include; a school, shop, health clinic, art centre, and council building etc.
- Once all map features are drawn, use a permanent marker to trace over the top of all marked lines.
- Cover your square sponge in paint, and place it inside the house/building areas to demonstrate the solid buildings on your map (refer to image in Appendix A).
- Ensure there is a gap between the painted area and the outline of your houses and buildings as this space will act as the 'fence' of the property.
- To illustrate the direction students need to follow for the census, draw arrows on the roads around the map.
- Place the word 'Start' at the beginning of the map and 'Finish' at the end of the map.
- Using fine fabric paint, permanent marker, or similar - colour the arrows in any colour that will help indicate the direction in which to undertake the census.
- For open areas included in your map, such as a playground or oval, trace over the top of these areas with coloured fabric paint and then label them. Do not fill these open spaces in.
- Once all the above steps have been completed, set your map aside to dry.
- Once dry, your map is ready for use.



Appendix A

Animal Census Map (Demonstration image)

