

# Quadrats Online: Student Worksheet



Elsbeth Swan ©

## Activity 1

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### Stake out (Levels 3-4)

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## Introduction

Investigating types of living and non-living things that exist in an ecosystem can be a huge task. Sometimes it's easier to look at a smaller area that is representative of the larger area. To do this we use a quadrat. This is simply a small rectangle, square or even a circle, used to isolate a smaller area to be studied.

## Activity

1. Put gloves on.
2. Randomly place the quadrat in the area to be studied. Discuss how this could be done before beginning this activity.
3. If you have a camera then take a photo of your quadrat from above plus photos of anything present in your quadrat.
4. Begin by recording the non-living things in the quadrat. Use the table of results on your worksheet to record your observations.
5. Now record the plants in the quadrat. You can list them by name if you are able to identify them, or simply as tree 1, shrub 1, herb 1, grass 1, ground cover 1 etc.
6. Look carefully in amongst the plants and in the soil. Record either evidence of animals or any animals that you observe within the quadrat. Use the jar or petri dish to collect animals and use the magnifying glass to help identify them. Make sure you release them afterwards.
7. Remember, the Ecolinc Biodiversity of the Western Volcanic Plains Flora and Fauna Field Guide may help you to identify some of the plants and animals.

## Results

Non living factors	Plants present	Evidence of animals	Animals present

## Interpretation of results

1. Why was it important to choose the positions of the quadrats randomly?

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2. How did you decide whether a plant was inside or outside a quadrat?

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3. List some ways in which plants and animals rely on non-living factors to survive.

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4. In what ways do animals need plants to survive?

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5. In what ways do plants need animals to survive?

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## Conclusion

6. Why are quadrats useful when studying an ecosystem?

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7. What may not have been sampled properly using this technique?

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