



## Quadrat Study

Quadrat studies are used by Ecologists everyday. Children also love this type of science because it's so fun! Quadrat studies are done outdoors in a small square area chosen at random and marked. You can use a wire coat hanger bent into a square, a meter square made with pvc piping (very easy) or use pipe cleaner wire to make a square. Officially, meter squares are used but use whatever size is best for you. Let your child toss it into the back yard. In this square you will get on your knees and find every living thing in the square, grass, leaves, ants, bugs, worm, and any non-living; rocks, sand, dirt, etc. The discovering is fun but to make it scientific and to work on those processing skills, make a lab report.

Don't forget to include a hypothesis:

What do you think you will find in our quadrat?

List materials

List procedure

Make a table with 2 columns, in one they write the thing they find, in the second, they make hash marks every time they find one, tallying. You can also pre-write some items to help get them excited about things to look for.

Ants      IIII

Worm     I

Red Bugs

Clover    ii

Be sure to bring bug boxes so you can magnify what you find.

Have your child draw some of the things you find.

Graphing skills- Use your data to make a bar graph of what you find.

On another day throw the quadrat in a different area of the yard. Repeat and this time compare the 2 studies. When we did this in college, we each did 4 then compared them with the other 4 by other students. We then compared our own with what they got and then put the class info together to get a total tally.

To compare ask your child to predict if they think you'll get a similar set of living things or many others you didn't get before.

Have the older child make a comparison bar graph to compare the two graphically.

**Make sure you have your child do a write-up about the quadrat studies, comparing both populations and drawing conclusions about why they think the amount of items found were or were not similar.**

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