# The Ladybug Catchers

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## ABSTRACT

The objective of this experiment was to observe different climates and the change of ladybug lifecycles in those climates. Over a nine day period, the ladybug larvae was placed in three different climates. All groups were checked observed for changes. By days two and three the room temperature larvae had changed to pupas for a total of four. By the end of the nine days there were five adult ladybugs in the room temperature. The larvae placed in the hot climate had a total of two pupas by day three. By day nine there was one live adult ladybug. The larvae in the cold temperature survived but none went past the larval stage. In summary placing the ladybug larvae into the room temperature climates is the most efficient to achieve a complete lifecycle.

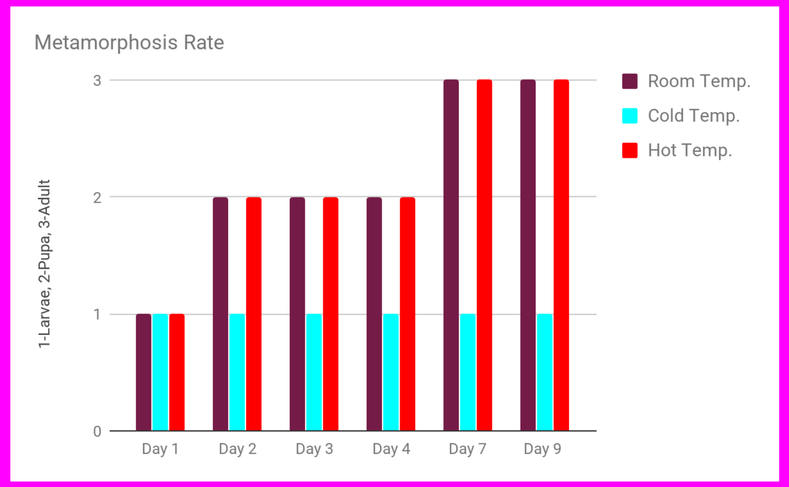
## INTRODUCTION

Ladybugs can eat up to 5,000 aphids in their lifetime. They eat the aphids so the aphids will not kill crops. Farmers discovered a long time ago that introducing ladybugs to their crops would help kill the aphids and protect the crops. For about two weeks, the ladybug larvae was observed for changes in different temperatures. These different temperatures were warm, cold, and hot. The warm temperature was about 75 degrees, the hot temperature was about 102 degrees, and the cold temperature was about 32 degrees. It was hypothesized that warm, or the room temperature, would be the ideal temperature for changes in ladybugs larvae. This is how farmers can produce better crops.

## MATERIALS AND METHODS

To start the experiment, 5 ladybug larvae were put into three separate containers. The containers were each placed in a different temperature. The temperature for the hot was about 102 degrees fahrenheit, the room was about 75 degrees fahrenheit, and the cold about 32 degrees fahrenheit. In each container, there was crushed up raisin bran cereal for the lady bug larvae for food. There was a half of a sponge with water for moisture. There was also a little piece of paper for the larvae to climb on and hide under. When they turned into a ladybug, there was also a raisin for the ladybugs to eat. The room temperature was in the classroom on top of some shelves. The cold temperature was in the refrigerator and the hot was under six different lamps with 100-watt light bulbs to keep them warm. We conducted this experiment for about nine days.

## RESULTS




## CONCLUSION

It was first predicted that the ladybugs would change in their life cycle the best in the room temperature. On day nine, the observation ended with one pupa and five ladybugs in the room temperature. Even though the hot temperature ended with one ladybug on day nine, the room temperature was the best for the ladybug lifecycle. Ladybugs like the warm climate the best and this research matches with our results from the experiment.

## REFERENCES

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### TEKS

ELAR: 3.4, 3.15, 3.16, 3.17, 3.17 A,B,C,D, 3.23, 3.23B, 3.23C, 3.23D, 3.25, 3.25A, 3.25B, 3.26, 3.26A, 3.28, 3.29, 3.30, 3.31
SCIENCE – 3.1A, 3.2B, 3.2C, 3.2D, 3.2E, 3.2F, 3.3A, 3.4A, 3.4B, 3.10C
MATH – 3.1A, 3.1B, 3.1E, 3.8A

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