

# What Do Avon High School Students Know About Permaculture and Composting?

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## Introduction

### Permaculture

Permaculture design helps provide a self-sufficient garden ecosystem. It creates a multi-functional and diverse system that provides people with many goods including food, clean water, and shelter. The object of permaculture is to provide no waste, and to be self-sustainable.

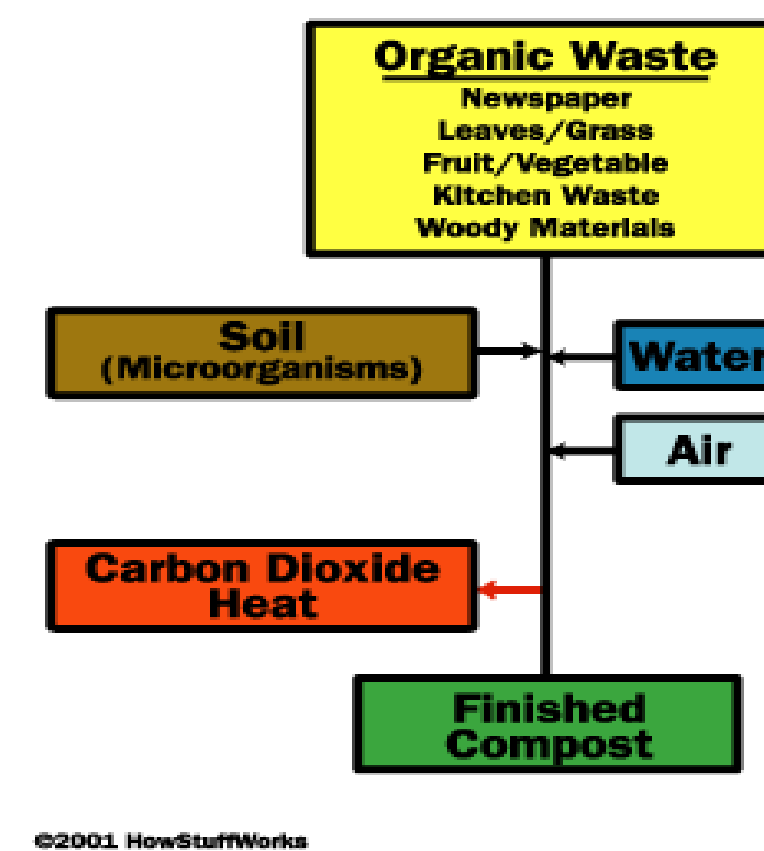
Benefits to the environment:

- Attracts bee populations
- Increases soil water retention
- Provides cleaner water through natural filtering
- Improves soil quality
- Increases oxygen levels



### Composting

Over fifty percent of all waste is biodegradable (3). However, the majority ends up in landfills. Composting provides a natural way to decompose natural waste, and reduce methane levels from landfills. It is done by mixing natural products, and keeping a carbon to nitrogen balance.



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## Survey Development

- In Sept. 2018, we began to research permaculture and composting.
- Building upon the existing permaculture garden, the survey was developed to address: How much AHS students already knew about permaculture, how much they knew about composting, and how aware of the AHS permaculture garden they were.
- The survey was created using Google Forms, and went through several drafts. On January 31, 2019, the survey was distributed to the entire student body by the AHS principal. Responses were accepted until February 10.

## Major Findings

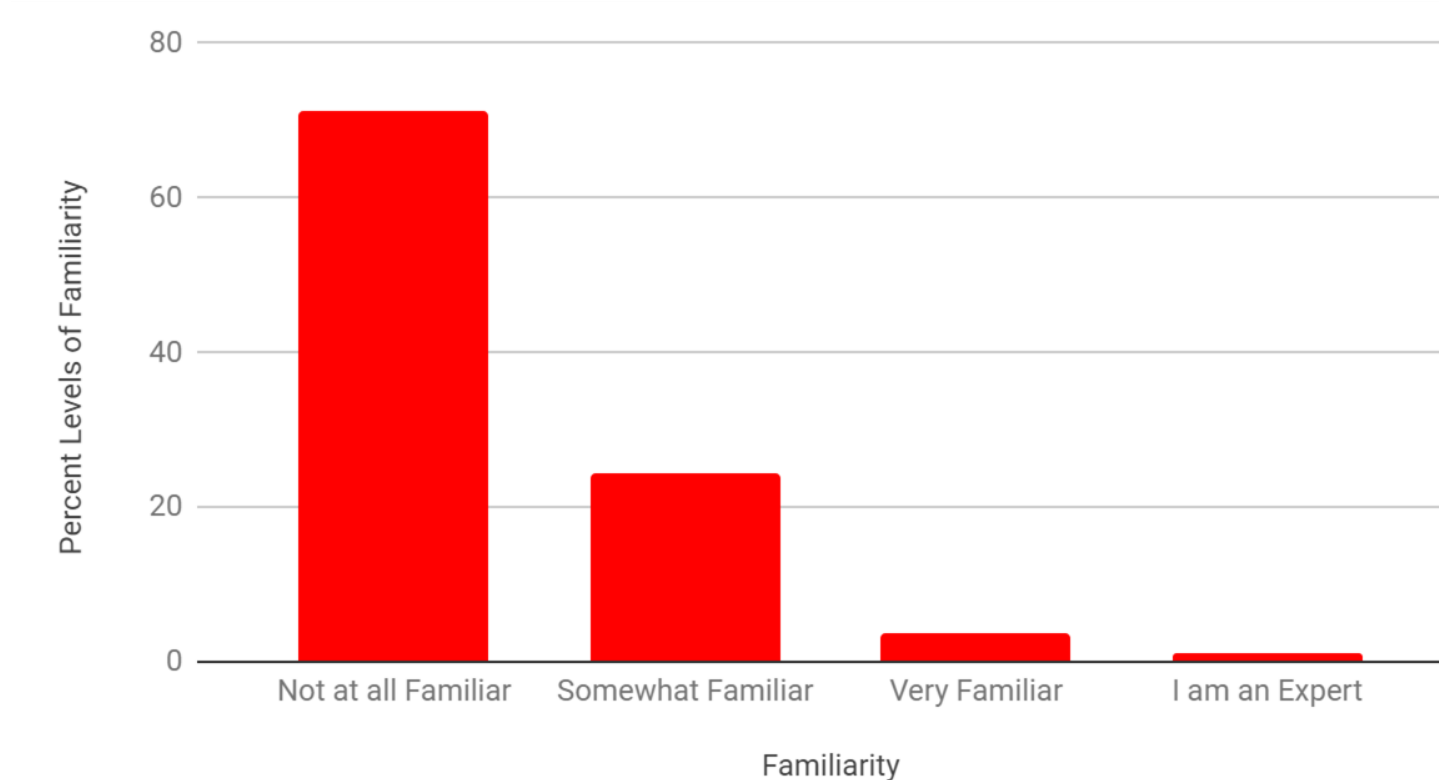


Figure 4. Nearly 75% of AHS students are not at all familiar with Permaculture.

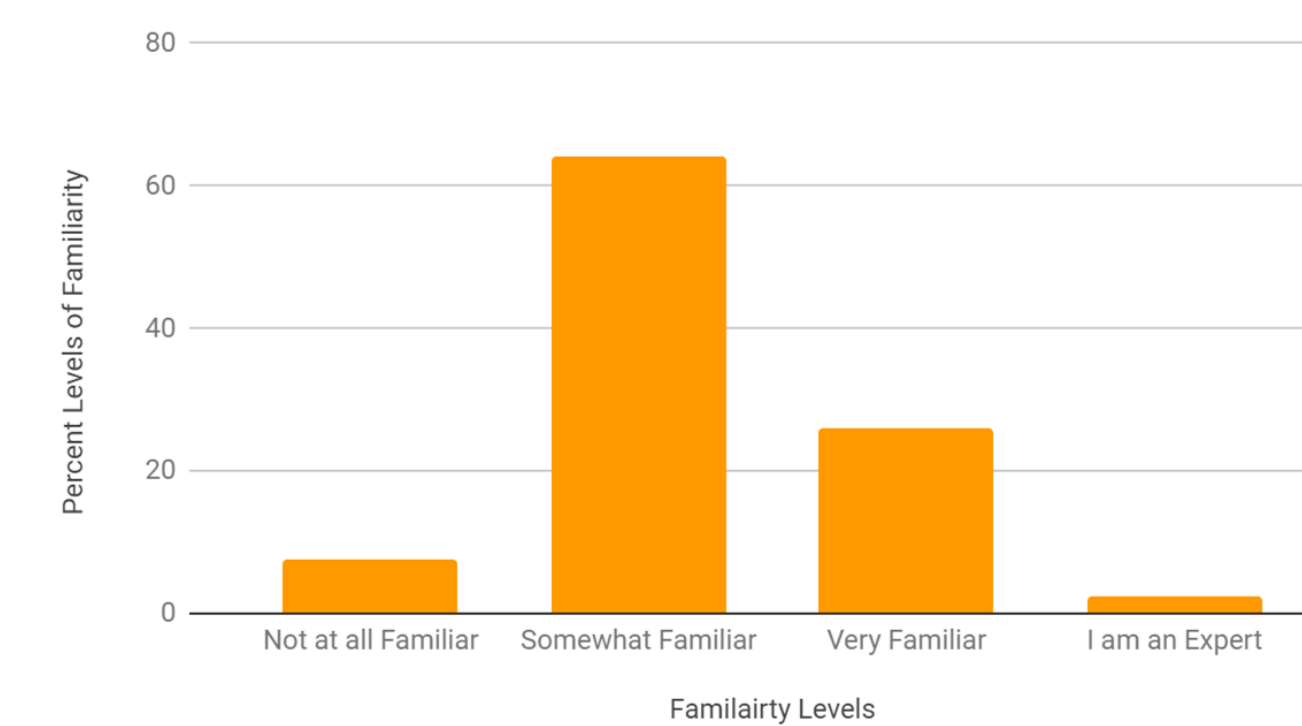


Figure 5. Nearly 65% of AHS students are somewhat familiar with composting.

- 61% of AHS students would be interested in learning more about permaculture, and 41% percent were interested in learning more about composting.
- Information provided in online videos, an environmental club, or as part of a class interests 66% of students for permaculture (Fig. 6) and 75% of students for composting (Fig. 7).

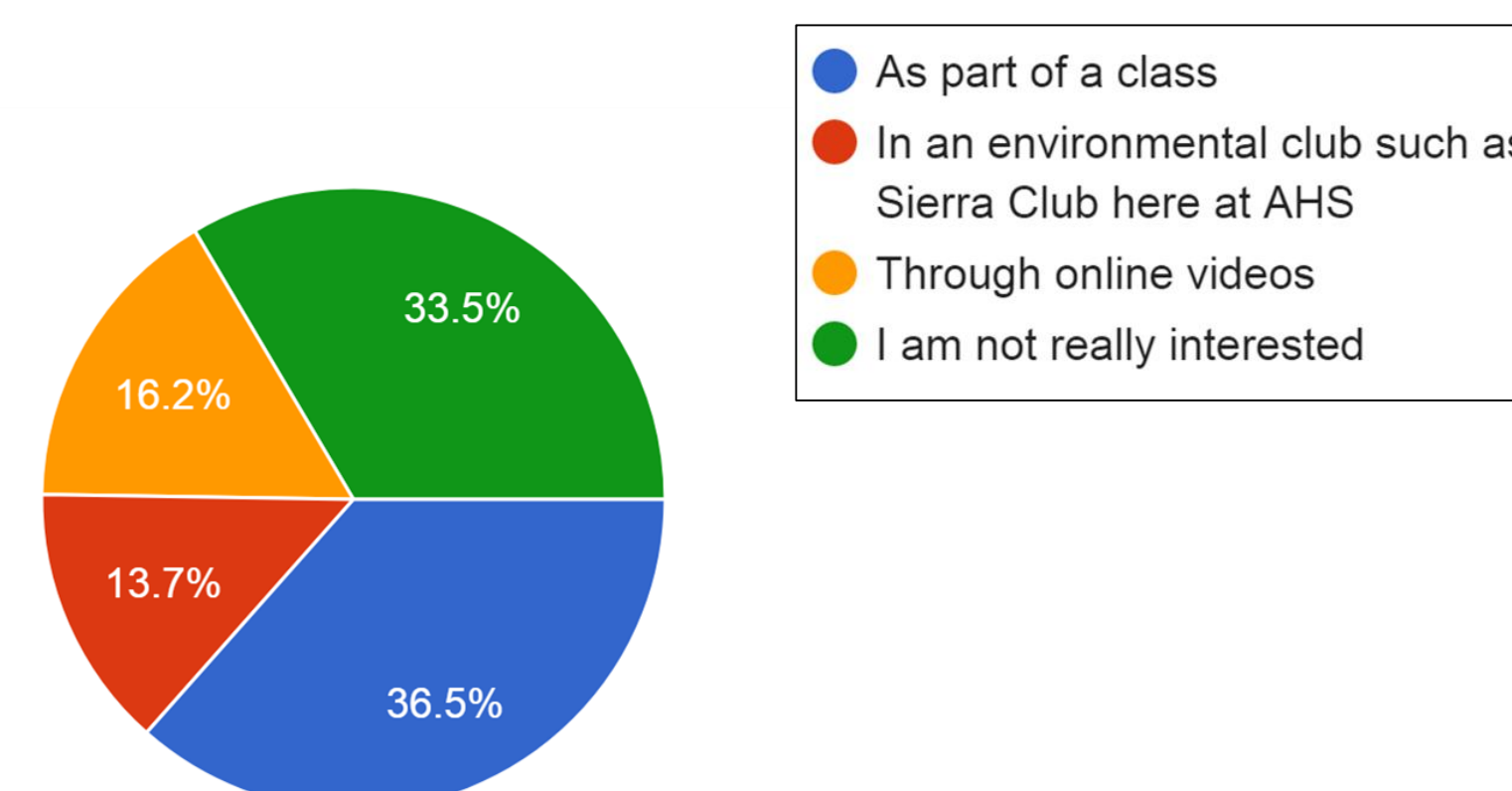


Figure 6. The ways students would be interested in learning more about permaculture.

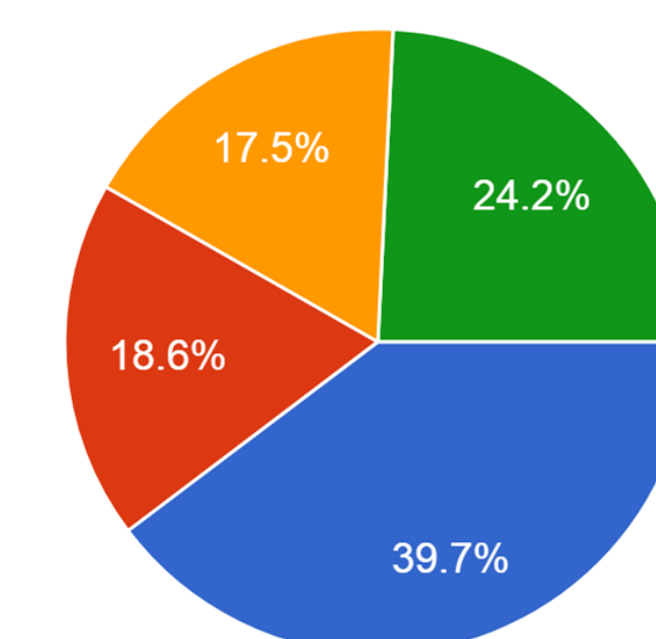


Figure 7. The ways students would be interested in learning more about composting.

## Brochure Development & Outreach

- We also discovered that 70% of students were not aware of the permaculture garden at AHS. To better advertise the garden, a brochure was created for the student body.
- The objective of the brochure was to increase popularity of the permaculture garden at AHS, and to have easily accessible care instructions for it.

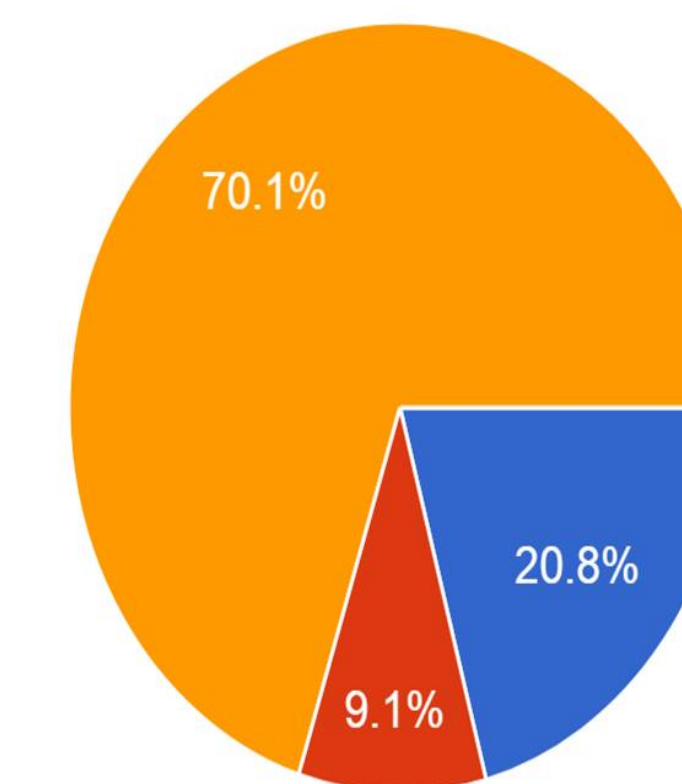


Figure 8. Student responses to the question, "Do you know where the AHS permaculture garden is located?".

## Permaculture & Composting at Avon High School (AHS)

In 2018, Kelly Zheng designed and installed a permaculture garden and composting system at Avon High School. Since then, not much maintenance or interaction with the garden has occurred.

In this project we seek to understand what the regular student body knows about permaculture and composting. To address these questions, a survey was developed and sent out to the whole school.



Figure 2. The AHS Permaculture Garden

## Our Goals

1. Learn more about the AHS student body's understanding of permaculture and composting.
2. Increase interest in permaculture and composting practices, so students can better support the AHS garden

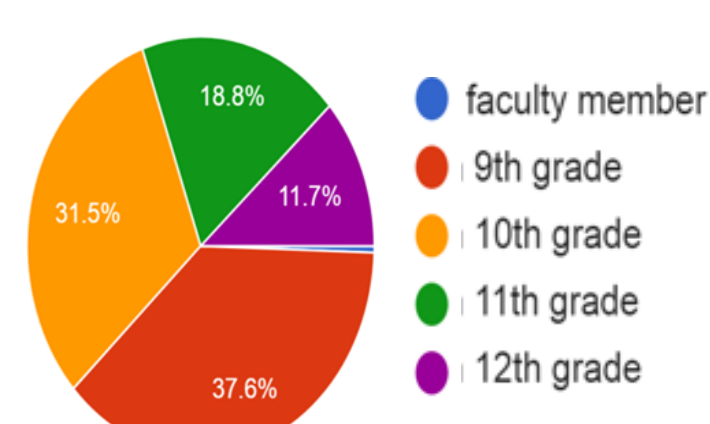


Figure 3. The percentage of students from each grade that responded to the survey

## Conclusions

- Students are more familiar with composting than with permaculture
- Almost ¾ of the students were unaware of the permaculture garden at AHS, which is why the brochure will be very helpful
- Almost 40 Percent of the students asked, were interested in learning more about permaculture *and* composting practices through a class at AHS

## Acknowledgements

I am really thankful to my community partner, Mr. Tinker, who took time out of his schedule to help me. He consistently helped me stay on track, and helped me makeover edits to my survey. In addition, he helped me with all the necessary resources to have a successful project. Abby Beissinger was the one who made this project possible, she constantly sent me encouraging messages and kept me completely on task. Finally, my principal Mr. Renkawitz, who took the time to send out my survey to the student body of AHS.

## References

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