

GREENTHUMB CLUB – URBAN GARDENING AFTER SCHOOL PROGRAM

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NEED

Educating youth at Lincoln Intermediate School about the basics of gardening and food security.

OBJECTIVES

- Provide STEM gardening activities for youth at Lincoln Intermediate School in Mason City
- Expose youth to the school greenhouse and pollinator gardens
- Educate youth about where their food comes from

EDUCATIONAL PRACTICES

Iowa State University Extension and Outreach in Cerro Gordo County partnered with teachers at Lincoln Intermediate School through the ISU Rising Star internship to determine the educational needs for youth. The following topics were selected as high importance for youth education. Youth learned:

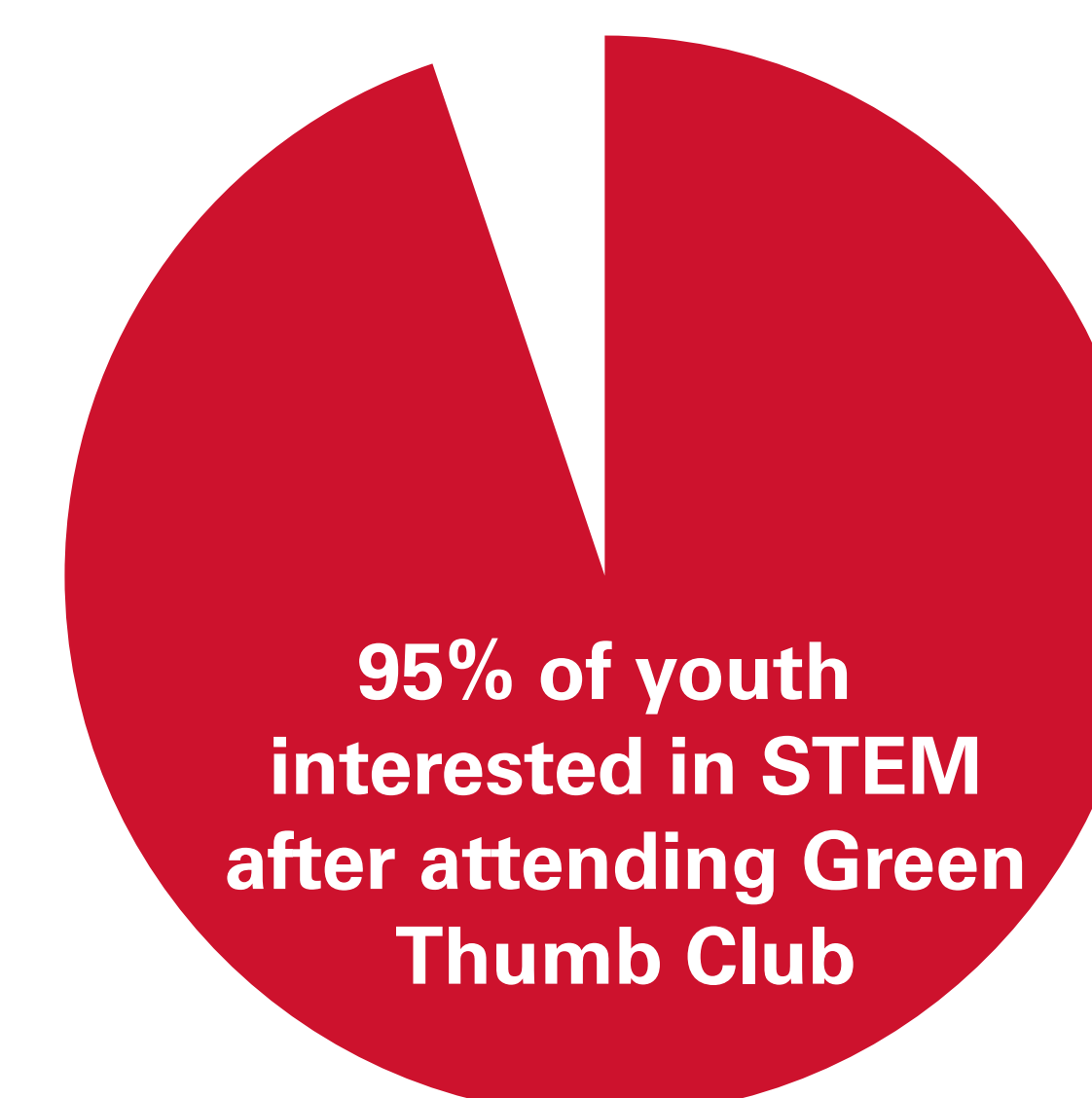
- **Basic Plant Needs/Survival – Life Cycle of Plants:** tour the greenhouse, pollinator gardens, etc. Discuss what a plant needs to survive. Each youth nurtures seeds planted over six weeks.
- **Seeds and seed dispersal:** read seed packets and learn different ways seeds are spread.
- **Soil:** explore how water drains from different soil types, create a soil ribbon to demonstrate amount of clay in their soil sample, and create soil horizons in a jar to observe the separation of sand, silt, and clay particles.
- **Parts of Plant and Function:** use vegetables to demonstrate and discuss plant parts and functions.
- **Insects:** learn basic anatomy and compare insects, demonstrate the balance of beneficial and pest insects in a garden, and create their own insect and present to the class explaining the benefits and harm it does to the environment.
- **Pollinators:** discuss what pollinators are and pollination is. Beekeeper comes to Green Thumb to educate youth. Youth plant pollinator gardens at school to support pollinators.



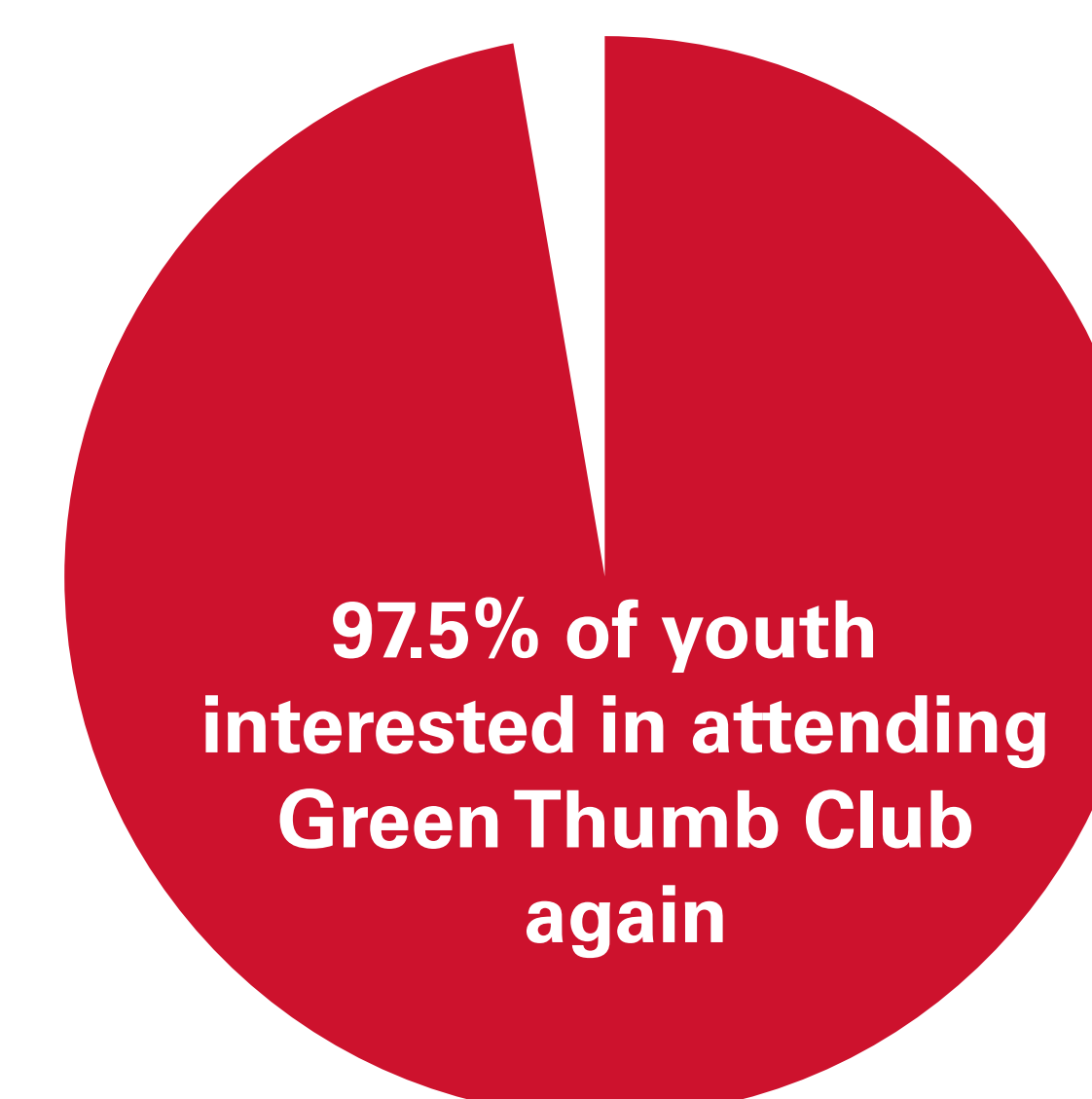
ENGAGEMENT AND IMPACT

- From fall of 2020 to spring of 2021, there was a 54.5% increase in participant numbers.
- The student evaluation indicated that 95% of students were more interested in STEM (plant science specifically) after attending Green Thumb Club.
- 97.5% of students expressed interest in attending Green Thumb again during the school year.
- Teachers expressed a great level of satisfaction with the utilization of the greenhouse and STEM principles.
- Students were able to learn from experts with careers in gardening/pollination.

Number of Youth Interested in STEM



Number of Youth Interested in Attending Again



Thank you to Lincoln Intermediate School principal Teresa Schlichting for allowing us to implement this program. A special thank you to Teresa Logan, Kristine Leininger, and Olivia Brcka for assisting with the program.