

CS4MS+ Field Trip Opportunity

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-Introduction

Who are we?

We are the Computer Science for Muncie Schools team or CS4MS+. The team is made up of Ball State immersive learning students who have an interest in computer science. Our mission in CS4MS+ is to educate and encourage all K-12 students in the exploration of computer science and computational thinking by interacting with students, their educators, and the community.

What is our goal for this field trip opportunity?

The CS4MS+ team invites the Burriss 6th grade, 7th grade, and 8th grade students to Ball State University for an interactive educational experience. Our goal for this field trip is to make an impact and spark interest in the computer science field to younger students. We want the students to have fun and to learn new and interesting things that they can't normally learn about in their classes. We have many activities planned for this field trip that will teach these ideas and topics in a fun and interactive way. All information regarding the planning of the field trip is detailed below.

-Itinerary

8AM - Burriss school starts

8:50AM - First period ends

-Students should stay at school until after their first class for attendance reasons.

9AM - Students meet up

-All of the students that are going on the field trip should meet up somewhere in Burriss to make sure everyone is accounted for.

9:10AM - Walk to the Ball State Student Center

-We will have one or two CS4MS+ members guide you to the Student Center from Burriss.
what

9:25AM - Introduction and splitting into groups

-Introductory speech talking about who we are, we do, what the field trip is about, what they'll learn. We'll also split the students into groups depending on how many of them there are.

10:00AM - Group activity 1

-Take groups of students into separate rooms for a group activity/icebreaker relating to computer science.

-We have a list of activities prepared for each group.

10:35AM - Group activity 2

11:15AM Lunch

-Combine all the groups to eat a pizza lunch.

12PM - Group activity 3

12:35 PM - Speaker Presentation

-We are planning to invite a professional educational speaker to present and interact with the students. (Still deciding on the speaker to present but it will be computer science/career related speaker)

1:25PM - Conclusion

-Concluding statement, say goodbye to the students, give time for students to pack up their stuff.

1:35PM - Students return to Burriss

-Location

- Field trip will be located at the Ball State Student Center.
- We will have multiple rooms reserved.
 - Cardinal Hall B (Introduction and Lunch)
 - Cardinal Hall A (Group Activities)
 - Forum Room (Group Activities)
 - Music Lounge (Group Activities)
 - Ballroom (Speaker Presentation and Conclusion)

-Date

- Field Trip will either be held during Fall 2021 (November) or Spring 2022 (April)
- Exact dates can be negotiated with Burriss to best fit the needs of the teachers and students

-Food Plan

- Lunch will be held at 11:15AM in Cardinal Hall B
- Planned meal:
 - Pizza (Hotbox, Papa Johns, Greeks Pizzeria)
 - Snacks
 - Drinks
 - Accommodations for students with dietary restrictions

-Speaker

- The Speaking presentation will be held at 12:35PM in the Ballroom
- We are planning to invite a professional speaker to Ball State to present and interact with the students
- Topics for the speaker may include:
 - Computer Science Careers
 - Robotics
 - Video Games
 - Computers in Society

-Group Activities

Group activities will be held multiple times during the field trip and in different rooms.

Below is a list of some of the potential activities that students may participate in.

- [PBJ](#)
In this activity, students will attempt to "program" the instructor to make a peanut butter and jelly sandwich. Begin by instructing the class to collaboratively write down instructions for making a peanut butter and jelly sandwich. With the instructions in hand, tell the class that you are a computer and that you are going to follow their instructions. Proceed by interpreting the instructions in the most literal manner possible.
- **Binary Shirts**
In this activity, students will learn simple binary by wearing shirts with either a "0" or a "1" on them. They will be tasked to make certain digits in binary using themselves as the digits.
- [Physical Computing](#)
In this activity, students will learn to use micro-computers to physically create their own miniature projects. This activity teaches very simple programming and computation.
- **Take Apart Hardware**
In this activity, students will be able to take apart and put back together a computer. They can learn what each part does in the computer and where it goes and how all the parts fit together.
- **Logic Puzzles**
Logic puzzles are simple and straightforward problems that teach kids to use logic to find the solution to a puzzle. There are hundreds of different logic puzzles but some of the most popular types would be Sudoku and Crossword puzzles.
- [CS Unplugged activities](#)
CS Unplugged is a collection of simple, easy, and fun activities that teach basic computer science topics.