Columbus Middle School
Afterschool S.T.E.M. Academy
Handbook

CMS PHONE NUMBERS

Main office …… 662-241-7300

FAX …… 662-241-7305

ATTENDANCE

Regular attendance is necessary during the after-school program hours. Considerations toward absences, either planned or unplanned will be given by the project director.

ABSENCES

If a student is absent from the program they must provide the following documentation of absence upon returning:

Excused Absences: Absences classified as excused are those due to illness, illness in the family, death in the family, extreme emergencies, or those deemed acceptable by the project director. Work missed during the time of an excused absences must be made up as soon as possible.

CAFETERIA

All Falcon SOAAR students will be provided with a health snack during program hours. Student are not allowed to bring any other food or drink. Please inform the project director/coordinator if your child has any allergies that require our attention.

CODE OF CONDUCT

All students participating in Project Falcon S.O.A.A.R S.T.E.M. Academy have the right to attend class without interference or disruption. No student will be permitted to interfere with the right to the education of any student. Project Falcon S.O.A.A.R will maintain a safe environment for the welfare of all students, and the code of conduct is designed to help provide a positive learning environment for faculty, staff, and students. Discipline will be enacted upon any student who denies this right to an education to others or who is defiant of the rules necessary to provide a secure and productive

environment in which a quality education may occur. The student is responsible for making him/herself ware of the Code of Conduct used for behavior and attendance related problems, which will be given to each student at the beginning of the program and sent home for the parents to review.

Project Falcon S.O. A. A.R will institute a Three- Step intervention Plan as a guide for dealing with student behavior problems when they arise.

TEACHER PROCEDURES FOR BEHAVIOR INTERVENTIONS

1st Step – The student will be warned, the teacher will document behavior, and the teacher will make a documented attempt to contact parents

2nd Step – The student will meet with his/her group teachers and Project Director and a letter will be mailed home to the parent documenting behavior

3rd Step – The student will meet with Project Director and parents to discuss behavior and future consequences and student may be suspended from program.

ADMINISTRATIVE PROCEDURES FOR BEHAVIOR DISCIPLINE LADDER

Step 1	Warning + parent contact
Step 2	Parent contact + 1 day suspension from academy
Step 3	Parent contact + 2 day suspension from academy
Step 4	Parent contact + 3 day suspension from academy
Step 5	Parent contact + Recommended dismissal from program

The following is a list of consequences – but not all – of the various discipline infractions will result in office referral. Below are administrative assigned consequences

DRESS CODE

The Falcon SOAAR S.T.E.M. Academy is an extension of the school day and therefore students are expected to be dress in his/her school uniform. Failure to follow the school uniform can result in disciplinary action.

Infraction	*Consequence*
Dress code violation	Step 1
Horse playing	Steps 1-5
Behavior determined by Admin	Steps 1-5
Damaging school property	Steps 2-5 (plus restitution)
Profanity	Steps 1-5
Profanity towards teacher	Steps 4-5
Use/possession of dangerous object	Steps 1-5
Tobacco use and possession	Steps 3-5
Open defiance of teacher	Steps 1-5
Threatening school personnel	Steps 4-5
Assault on school personnel	Steps 5 + CMSD school policy
Provoking/instigating fight	Steps 4
Fighting 1st offense	Steps 5 + CMSD school policy
Fighting 2nd offense	Steps 5 + CMSD school policy
Harassment/bullying	Steps 1-5
Possession and/or use of weapon	Steps 4-5 + CMSD school board policy
Illegal drug possession, use, or under the influence of	Steps 5 + CMSD school policy

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BELL SCHEDULE

	CLASS I 4:00-4:45	CLASS II 4:55:-5:35
Automation & Robotics	Instructors (2) Grad Student Science Lab 501	Instructors (2) Grad Student Science Lab 502
Design & Modeling	Instructors (2) Grad Student RM 801	Instructors (2) Grad Student RM 802

3:40--3:55	Student snacks in cafeteria
3:55-4:00	Teachers and students report to class
4:00-4:45	Class Session I (AR & DM classes)
4:45-4:50	Conclude lessons and cleanup work stations
4:50-5:00	Transition time
5:00-5:45	Class Session II (AR & DM classes)
5:45-5:50	Conclude lessons and cleanup work stations
5:50	Dismiss to buses

********* Schedule subject to changes *********

COUNSELING SERVICES

When it is brought to the attention of the teacher and/or Project Director that counseling is needed the CMSD Student handbook policy will be enforced.

CLASSWORK

Students participating in the academy will be instructed from the PLTW curriculum. This is a very challenging curriculum that requires students to have basic but firm understanding of mathematical and science concepts. Work within the classrooms is very hand-on and will consist of project based learning. Students are reminded to be aware of all deadlines for assignments.

EMERGENCY DRILLS-FIRE AND TORNADO

Fire and tornado drills will be held periodically throughout the year. Students will be informed of drill procedures and assigned areas to report to in case of emergency situations. Verbal instructions will be used to indicate tornado or other disaster drills.

CURRICULUM

PLTW Gateway - Curriculum
Develop and encourage students' continued excitement in STEM Through topics like coding and robotics, flight and space, and DNA and crime scene analysis, middle school students engage their natural curiosity and imagination in creative problem solving. PLTW Gateway is a strong foundation for further STEM learning in high school and beyond, challenging students to solve real-world challenges, such as cleaning oil spills and designing sustainable housing solutions. Using the same advanced software and tools as those used by the world's leading companies, students learn how to apply math, science, technology, and engineering to their everyday lives.

PLTW Gateway is divided into independent, nine-week units, assuming a 45-minute class period. PLTW Gateway is designed to be taught in conjunction with a rigorous academic curriculum. Schools that offer the program implement both foundation units and may add any combination of the specialization units.

FOUNDATION UNITS

Design & Modeling
Students apply the design process to solve problems and understand the influence of creativity and innovation in their lives. They work in teams to design a playground and furniture, capturing research and ideas in their engineering notebooks. Using Autodesk® design software, students create a virtual image of their designs and produce a portfolio to showcase their innovative solutions.

Automation & Robotics
Students trace the history, development, and influence of automation and robotics as they learn about mechanical systems, energy transfer, machine automation, and computer control systems. Students use the VEX Robotics® platform to design, build, and program real-world objects such as traffic lights, toll booths, and robotic arms.

SPECIALIZATION UNITS

Introduction to Computer Science 1
Studies show that by 2018, 1.4 million job openings will be available for computer specialists. In this unit, students discover the principles of this fast-growing field by focusing on creativity and an iterative design process as they create their own basic apps using MIT App Inventor.

Introduction to Computer Science 2
Students continue to explore the fundamentals of the stimulating career path of computer science. They venture into text programming through Python and, in the final problem, develop an app to crowdsource and analyze data on a topic of their interest.

Energy & the Environment
Students are challenged to think big and toward the future as they explore sustainable solutions to our energy needs and investigate the impact of energy on our lives and the world. They design and model alternative energy sources and evaluate options for reducing energy consumption.

Flight & Space
The exciting world of aerospace comes alive through Flight and Space. Students explore the science behind aeronautics and use their knowledge to design, build, and test an airfoil. Custom-built simulation software allows students to experience space travel.

Science of Technology
Science impacts the technology of yesterday, today, and the future. Students apply the concepts of physics, chemistry, and nanotechnology to STEM activities and projects, including making ice cream, cleaning up an oil spill, and discovering the properties of nano-materials.

Magic of Electrons
Through hands-on projects, students explore electricity, the behavior and parts of atoms, and sensing devices. They learn knowledge and skills in basic circuitry design, and examine the impact of electricity on the world around them.

Green Architecture
Today's students have grown up in an age of "green" choices. In this unit, students learn how to apply this concept to the fields of architecture and construction by exploring dimensioning, measuring, and architectural sustainability as they design affordable housing units using Autodesk's® 3D architectural design software.

Medical Detectives

Students play the role of real-life medical detectives as they analyze genetic testing results to diagnose disease and study DNA evidence found at a "crime scene." They solve medical mysteries through hands-on projects and labs, investigate how to measure and interpret vital signs, and learn how the systems of the human body work together to maintain health.

GRADING SYSTEM

The grading system for evaluation is as follows:

A …… 90-100 …… Super Achievement

B …… 80-89 …… Above average achievement

C …… 70-79 …… Average achievement

D …… 70-79 …… Below average achievement (but passing)

F …… Below 65 …… Failing (no credit)

LIBRARY

A library is a place for enjoyment and research. Students are welcome in the library and since it is a place for quiet work, they are expected to be on their best behavior. Students are encouraged to use the library during accessible hours. The librarian will be glad to help find information or suggest books. Other school policies related to book check-out will apply.

PARENT CONFERENCES

Conferences with teacher should be arranged by contacting the Program Director. Parents and guardians are a very important link in a student's success. The difference between a student's motivation toward being successful and not achieving a personal success can be the support that is given by a parent/guardian at home. Parents and guardians should encourage their children to become involved our academy. We strongly urge parents and guardians to take an active interest in how they are doing. We believe that parents will see very positive results.

PERSONAL BELONGINGS

Each student is responsible for his/her belongings. All items should be marked with the student's name. Students should bring only school-related items to school. Inappropriate items will be confiscated from the student and a parent must come to CMS to get them.

Students should never be in possession of more than $5.00 while at school unless they have brought it for a school-sponsored event. The selling of candy, chewing gum, toys or other items at school is not allowed and such items will be confiscated and held for parents to pick up or may be disposed of.

TRANSPORTATION

Transportation for students participating in the academy will be provide through the CMSD transportation department. Parents can choose to pick their child up daily. Students are reminded to follow all guidelines of the CMSD policy as it relates to safe and orderly transport. District policy will be enforced during transport.