

CTF Program of Studies

Career and Technology Foundations (CTF) is an optional program that allows students to explore their interests and passions as they learn about various career possibilities and occupational areas.

The CTF Program of Studies is based on 14 learning outcomes that identify what students are expected to learn and what will be assessed, and are the same for grades 5 to 9.

The CTF curriculum honors student diversity and promotes the meaningful and authentic exploration of various occupational areas. This curriculum supports programming decisions at the local level (e.g., time, resources, instructional approaches, assessment, reporting, and instruction organization). This is to ensure that CTF courses are responsive to the needs of students, teachers, schools, and communities.

CTF Learning Outcomes

CTF is exploring interests, passions, and skills while making personal connections to career possibilities.

- I explore my interests and passions while making personal connections to career possibilities.
- I use occupational area skills, knowledge, and technologies.
- I follow safety requirements associated with occupational areas and related technologies.
- I demonstrate environmental stewardship associated with occupational areas.

CTF is planning, creating, appraising, and communicating in response to challenges.

- I plan in response to challenges.
- I make decisions in response to challenges.
- I adapt to change and unexpected events.
- I solve problems in response to challenges.
- I create products, performances, or services in response to challenges.
- I appraise the skills, knowledge, and technologies used to respond to challenges.
- I communicate my learning.

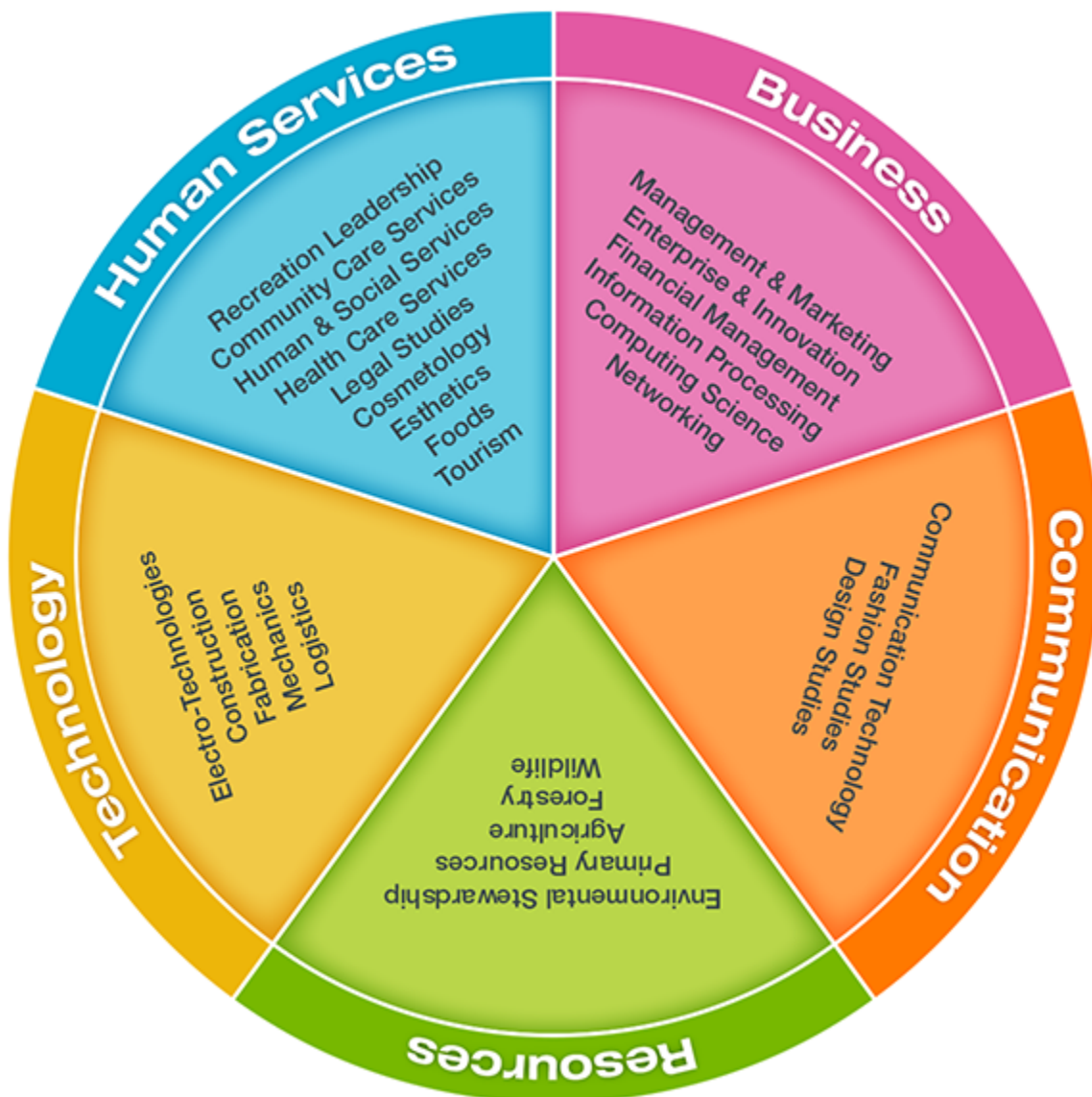
CTF is working independently and with others while exploring careers and technology.

- I determine how my actions affect learning.
- I develop skills that support effective relationships.
- I collaborate to achieve common goals.

The CTF Learning Process

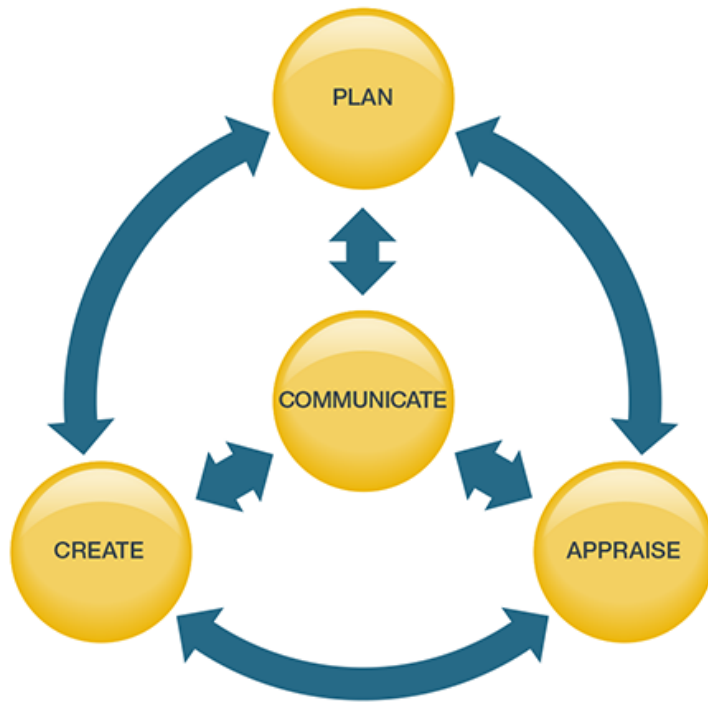
The CTF curriculum supports learning experiences that allow students to explore occupational areas common to Career and Technology Studies (CTS) and CTF through challenges or tasks. CTF is not a prerequisite for CTS high school courses.

Through the learning outcomes, the CTF learning process promotes the development of literacy and numeracy and competencies while exploring a variety of occupational areas belonging to five clusters: Business, Communication, Human Services, Resources and Technology.



CTF challenges or tasks that integrate at least two occupational areas provide students with an opportunity to experience the interconnectedness of skills, knowledge and technologies associated with various occupational areas.

Students engaging in CTF challenges or tasks alternate between the processes of **planning**, **creating**, **appraising** and **communicating** in non-linear manner.



Plan: To follow a process that identifies problems, generates ideas, and encourages empathy and evaluation when designing a solution to a task or a challenge.

Create: To make a product, performance, or service by using one’s thought or imagination.

Appraise: To use ongoing assessment to guide decision making and learning.

Communicate: To share or receive information in order to express ideas and gain understanding.

Although CTF supports flexible, interdisciplinary learning and encourages the use of challenges to develop relevant and meaningful hands-on learning experiences for students, pedagogy used to deliver the CTF curriculum is a local decision that provides opportunity to effectively use local resources and recognize local guidelines and expertise.

CTF Projects are based on the **STEM** and **STEAM** realms of education. STEM is a curriculum based on the idea of educating students in four specific disciplines — science, technology, engineering and mathematics — in an interdisciplinary and applied approach. Rather than teach the four disciplines as separate and discrete subjects, **STEM** integrates them into a

cohesive learning paradigm based on real-world applications. The addition of Arts to **STEM** to create **STEAM** is about incorporating creative thinking and applied arts in real situations. Art is not just about working in a studio. Art is about discovering and creating ingenious ways of problem-solving, integrating principles, or presenting the information. Picture an architect; they use engineering, math, technology, science, and arts to create stunning buildings and structures.

Projects will be discussed and designed within the context of the class at the discretion of the instructor. They will include but not be limited to 3D design and Print, Mind storm Robotics, cross-curricular projects with design a city, and other projects as the class move forward through the semester.

Differentiated Instruction (D.I.) and Assessment for Learning (A4L).

D.I. involves being more aware of the differences in how students learn which in turn leads to varied methods of instruction to better meet student needs. D.I. will also involve giving students a greater say in some of the areas they choose to focus their studies on and how they present their findings.

A4L (Learning Activities) requires students to be more aware of the objectives and requirements of each assignment. It focuses on using assignments as a method of improvement rather than as a source of marks. In this light, some of the student's work will be commented on, and discussed, without putting an actual mark on it. In this way, students will learn what is expected of them and how to improve their work. Students must put their best effort into completing and learning from all assignments.

Evaluation

Students will be evaluated on completion of the projects, as well as basic skills using a combination of rubrics, and summative and formative assessments.

Classroom Expectations

For our classroom to be a positive learning community, we all need to respect each other's right to learn and teach.

All students in our class are capable of success in science if we all follow these basic expectations:

1. **ARRIVE ON TIME AND BE PREPARED EVERY DAY.** You will need your binder, textbook, journal, blue pen, red pen, eraser, highlighter, ruler, and agenda. There is no excuse for leaving these items at home because you know you have science class every day. It is disrespectful and disruptive to the teacher and your classmates to arrive late or unprepared. Time wasted by late arrival or unprepared arrival will be made up for at noon.

2. **RESPECT** is an essential part of working in a learning community:

- a. All students are expected to respect themselves, each other, and the teacher, as well as all property and equipment. Name-calling, teasing, inappropriate language, damage to property, etc will not be tolerated. Inappropriate behavior will be dealt with immediately. Further incidents will be handled more sternly and may involve parents and administration.

CTF Course Outline MHS Semester I & II all rotations

- b. Use class time effectively and complete your work on time. Misuse of class time will result in less class time to work on assignments, etc. Misuse of time may also result in making up for that time at lunch hour.
- c. Do not talk when someone else is talking, whether it is the teacher or a classmate. You want to be heard when you are speaking and it is expected you would demonstrate the same respect.

3. This is **YOUR** learning environment! A neat classroom makes the learning experience more enjoyable and safe for everyone. You are responsible for maintaining your personal space and the classroom in general. Please clean up after yourself.

If there are any questions at all I can be reached via email or by calling the school.