

# Health Science 2

## Grades 11-12

**Units of Credit:** One Semester (Elective)

**Prerequisites:** Health Science 1

### **Course Description:**

Health Science 2 exposes students to a variety of opportunities available within the health care industry. Emphasis will be placed on developing connections between students and the health care community. Health Science Education advances the understanding of the role of health care in society and lays the groundwork for a well-prepared health care workforce.

### **Topics:**

- Medical math
- Measurement and the scientific process
- Body systems
- Human growth and development
- Mental health
- Nutrition
- Controlling infection
- Measuring vital signs and other clinical skill
- Therapeutic techniques and sports medicine
- Medical assisting and laboratory skills
- Patient and employee safety
- Responsibilities of a dental assistant

*NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).*

### **STANDARD 1: Students experience various career opportunities and assess personal career pathways.**

#### **Benchmark 1:**

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

#### **Learning Targets (Type):**

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

#### **Benchmark 2:**

Utilize local resources to research career plans.

#### **Learning Targets (Type):**

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

**Benchmark 3:**

Recognize the interrelationships of family, community, career, and leisure roles.

**Learning Targets (Type):**

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

**STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)**

**Benchmark 1:**

Prepare a budget and keep financial records.

**Learning Targets (Type):**

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

**Benchmark 2:**

Prioritize, allocate time, prepare and follow schedules to complete a project.

**Learning Targets (Type):**

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

**Benchmark 3:**

Apply appropriate time to task.

**Learning Targets (Type):**

1. I can implement a time schedule for task completion. (*S*)

**Benchmark 4:**

Use physical resources wisely to accomplish a goal.

**Learning Targets (Type):**

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

**STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.**

**Benchmark 1:**

Demonstrate active leadership skills by participation in group activities and projects.

**Learning Targets (Type):**

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

**Benchmark 2:**

Demonstrate positive personal and work ethics.

**Learning Targets (Type):**

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

**Benchmark 3:**

Demonstrate skills to be a productive citizen.

**Learning Targets (Type):**

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

**Benchmark 4:**

Apply self-esteem building practices.

**Learning Targets (Type):**

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

**Benchmark 5:**

Demonstrate appreciation for diverse perspective needs and characteristics.

**Learning Targets (Type):**

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

**Benchmark 6:**

Practice several methods of effective communication.

**Learning Targets (Type):**

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

**STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.**

**Benchmark 1:**

Practice technical skills and procedures required for an occupation.

**Learning Targets (Type):**

1. I can classify the basic structural and functional organization including chemical, cellular, tissue, and organ systems. (*K*)
2. I can recognize body planes, directional terms, quadrants, and cavities. (*K*)
3. I can analyze basic structure and function of the human body. (*R*)
4. I can compare the structure and function of the human body across the life span. (*R*)
5. I can apply behaviors that promote health and wellness. (*S*)
6. I can describe strategies for prevention of diseases including health screenings and examinations. (*K*)
7. I can apply practices that promote prevention of disease and injury. (*S*)
8. I can discuss complementary and alternative health practices. (*S*)
9. I can apply procedures for measuring and recording vital signs. (*S*)

**Benchmark 2:**

Practice safe and appropriate use of technology.

**Learning Targets (Type):**

1. I can apply infection control procedures including standard precautions. (*K,S,R*)

2. I can describe methods of controlling growth of microorganisms. *(K)*
3. I can apply personal safety procedures based on Occupational Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations (including standard precautions). *(K)*
4. I can apply principles of body mechanics and ergonomics. *(K,S)*
5. I can apply proper use of personal protective equipment (PPE). *(K)*
6. I can evaluate environment to recognize safe and unsafe working conditions. *(K,R)*
7. I can apply safety techniques to prevent accidents and to maintain a safe work environment. *(K)*
8. I can demonstrate methods of fire prevention in the health care setting. *(K)*
9. I can recognize Materials Safety Data Sheets (MSDS). *(K)*
10. I can comply with safety signs, symbols, and labels. *(K)*
11. I can understand implications of hazardous materials. *(K,R)*
12. I can apply safety principles within given environments. *(K,R)*
13. I can apply appropriate safety practices as related to high-risk behavior. *(K,R)*

**Benchmark 3:**

Select the appropriate tools, equipment, and procedures for the task.

**Learning Targets (Type):**

1. I can identify tools and equipment used in healthcare. *(K)*

**Benchmark 4:**

Manage and maintain technological tools and follow troubleshooting protocol.

**Learning Targets (Type):**

1. I can demonstrate the proper way to use and store tools and equipment in healthcare. *(S)*

**Benchmark 5:**

Apply technical information to a variety of sources.

**Learning Targets (Type):**

1. I can apply mathematical computations related to healthcare procedures (metric and household, conversions and measurements). *(S)*
2. I can apply mathematical principles to conversion equations as used in the healthcare system
3. I can record time using 24-hour clock. *(S)*
4. I can apply mathematical principles to problems involving dosage calculations and applied mathematical concepts. *(S)*
5. I can analyze diagrams, charts, graphs, and tables to interpret healthcare data. *(R)*

**STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.**

**Benchmark 1:**

Practice and demonstrate academic and technical skills to a workplace setting.

**Learning Targets (Type):**

1. I can practice, and demonstrate my technical workplace skills in my school lab. *(S)*
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. *(R,S,P)*

**Benchmark 2:**

Apply the concepts of entrepreneurship.

**Learning Targets (Type):**

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

**Benchmark 3:**

Identify possible outcomes and consequences of decisions.

**Learning Targets (Type):**

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

**Benchmark 4:**

Use acceptable industry standard equipment in a school setting.

**Learning Targets (Type):**

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)