



Principles of Biomedical Science

Course Description: Students investigate the human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. They determine the factors that led to the death of a fictional person, and investigate lifestyle choices and medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, medicine, research processes and bioinformatics. Key biological concepts including homeostasis, metabolism, inheritance of traits and defense against disease are embedded in the curriculum. Engineering principles including the design process, feedback loops and the relationship of structure to function are also incorporated. Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills.

Attendance: Students are required to be in school every day. Students are responsible for communicating with their teachers to make up for missed learning.

Essential Skills:

1. Technical Skills
2. Laboratory Skills
3. Professional Practices
4. Career Learning

Course Expectations: Although not everything is graded, everything is important. In order to demonstrate growth and learning, students will need to:

1. Participate in class activities (take notes, work in a group, complete in class tasks, ask questions) without distractions (cell phones, games, etc.)
2. Use morning time and the teacher to seek help outside of class when needed.
3. Complete all assessments within teacher timelines.
4. Be a contributing member of the class, both individually and collectively.
5. Dress accordingly for lab days (long pants, closed-toe shoes, and hair tie to tie back long hair).

Grading

Learning (Practice) includes instructional activities in and outside of class and are not used in grade determination. Although this is not part of your grade, it is practice. Very few students can do well on quizzes and exams without doing practice, so the sooner you take responsibility for practicing before scrimmages and games, the better.

Skyward Assessment (Scrimmage and Games = Grades) may include quizzes, labs, learning checks, tests, speeches, performances, and projects.

Final Grade	
A	100% - 90%
B	80% - 89%
C	70% - 79%
D	60% - 69%
F	0% - 59%

Calculations:

Final Grade Calculation	
Cumulative Grade	95%
Final Exam(s)	5%

Central High School Courses:

- Will determine grades based on student performance and growth.
- Will not include practice and behavior in grade determination.
- Will give all students regardless of absence an opportunity to demonstrate learning.
- Will not include extra credit.

Instructional Resources:

Students will access the curriculum through the PLTW Website (mypltw.org), using their login and password. Students will also complete Interactive Lab Notebooks as they progress through the curriculum.

Course Calendar/Pacing:

<p style="text-align: center;">August/September</p> <table border="1"> <tr><td></td><td></td><td>30</td><td>31</td><td>1</td><td>2</td><td>3</td></tr> <tr><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr> <tr><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td></tr> <tr><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td></tr> <tr><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td></td></tr> </table>			30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		<p style="text-align: center;">October</p> <table border="1"> <tr><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr> <tr><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td></tr> <tr><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td></tr> <tr><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td></tr> <tr><td>30</td><td>31</td><td></td><td></td><td></td><td></td><td></td></tr> </table>	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						<p style="text-align: center;">November</p> <table border="1"> <tr><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr> <tr><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr> <tr><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr> <tr><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td></tr> <tr><td>27</td><td>28</td><td>29</td><td>30</td><td></td><td></td><td></td></tr> </table>			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
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