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| Content/Grade:\_\_\_\_\_\_ 2022-2023 YAG – 9 Weeks | |
| **First Semester** | **Second Semester** |
| 1st 9 Weeks | 3rd 9 Weeks |
| Unit Zero: Mathematics Skills (5 – 7 Days)   * Evaluation of Accuracy * Reporting numbers * Expressing numbers in scientific notation * Writing and working with measurements * Conversion between units * Perform dimensional analysis * Solve algebraic equations * Rearrange algebraic equations for a given value   Unit One: Kinematics (19 – 22 Days)  **Topic 1.1 Position, Velocity, and Acceleration**   * 3.A.1.1  [SP 1.5, 2.1, 2.2] * 3.A.1.2 [SP 4.2] * 3.A.1.3 [SP 5.1]   **Topic 1.2 Representations of Motion**   * [SP 1.2, 1.4, 2.3, 6.4] * 4.A.2.1 [SP 6.4] * 4.A.2.3 [SP 1.4, 2.2]   Unit Two: Dynamics (19 – 22 Days)  **The following are College Board standards:**   * 1.C.1.1, 1.C.3.1, 2.B.1.1, 3.A.2.1, 3.A.3.1, 3.A.3.2, 3.A.3.3, 3.A.4.1 3.A.4.2, 3.A.4.3, 3.B.1.1, 3.B.1.2, 3.B.1.3, 3.B.2.1, 3.C.4.1, 3.C.4.2, 4.A.1.1, 4.A.2.1, 4.A.2.2, 4.A.2.3, 4.A.3.1, 4.A.3.2 | Unit Five: Momentum (12 – 15 Days)  **Topic 5.1 Momentum and Impulse**   * 3.D.1.1 [SP 4.1] * 3.D.2.1 [SP 2.1] * 3.D.2.2 [SP 6.4] * 3.D.2.3 [SP 5.1] * 3.D.2.4 [SP 4.2]   **TOPIC 5.2 Representations of Changes in Momentum**   * 4.B.1.1 [SP 1.4, 2.2] * 4.B.1.2 [SP 5.1] * 4.B.2.1 [SP 2.2] * 4.B.2.2 [SP 5.1]   **Topic 5.3 Open and Closed Systems: Momentum**   * 5.A.2.1 [SP 6.4, 7.2]   **Topic 5.4 Conservation of Linear Momentum**   * 5.D.1.1 [SP 6.4, 7.2] * 5.D.1.2 [SP 2.2, 3.2, 5.1, 5.3] * 5.D.1.3 [SP 2.1, 2.2] * 5.D.1.4 [SP 4.2, 5.1, 5.3, 6.4] * 5.D.1.5 [SP 2.1, 2.2] * 5.D.2.1 [SP 6.4, 7.2] * 5.D.2.2 [SP 4.1, 4.2, 5.1] * 5.D.2.3 [SP 6.4, 7.2] * 5.D.2.4 [SP 4.1, 4.2, 4.4, 5.1, 5.3] * 5.D.2.5 [SP 2.1, 2.2] * 5.D.3.1 [SP 6.4]   Unit Six: Simple Harmonic Motion (2 – 5 Days)  **Topic 6.1 Period of Simple Harmonic Oscillators**   * 3.B.3.1 [SP 6.4, 7.2] * 3.B.3.2 [SP 4.2] * 3.B.3.3 [SP 2.2, 5.1] * 3.B.3.4 [SP 2.2, 6.2]   **Topic 6.2 Energy of a Simple Harmonic Oscillator**   * 5.B.2.1 [SP 1.4, 2.1] * 5.B.3.1 [SP 2.2, 6.4, 7.2] * 5.B.3.2 [SP 1.4, 2.2] * 5.B.3.3 [SP 1.4, 2.2] * 5.B.4.1 [SP 6.4, 7.2] * 5.B.4.2 [SP 1.4, 2.1, 2.2]   Unit Seven: Torque (12 – 17 Days)  **Topic 7.1 Rotational Kinematics**   * 3.A.1.1 [SP 1.5, 2.1, 2.2]   **Topic 7.2 Torque and Angular Acceleration**   * 3.F.1.1 [SP 1.4] * 3.F.1.2 [SP 1.4] * 3.F.1.3 [SP 2.3] * 3.F.1.4 [SP 4.1, 4.2, 5.1] * 3.F.1.5 [SP 1.4, 2.2] * 3.F.2.1 [SP 6.4] * 3.F.2.2 [SP 4.1, 4.2, 5.1] * 3.F.3.1 [SP 6.4, 7.2] * 3.F.3.2 [SP 2.1] * 3.F.3.3 [SP 4.1, 4.2, 5.1, 5.3]   **Topic 7.3 Angular Momentum and Torque**   * 4.D.1.1 [SP 1.2, 1.4] * 4.D.1.2 [SP 3.2, 4.1, 4.2, 5.1, 5.3] * 4.D.2.1 [SP 1.2, 1.4] * 4.D.2.2 [SP 4.2] * 4.D.3.1 [SP 2.2] * 4.D.3.2 [SP 4.1, 4.2]   **Topic 7.4 Conservation of Angular Momentum**   * 5.E.1.1 [SP 6.4, 7.2] * 5.E.1.2 [SP 2.1, 2.2] * 5.E.2.1 [SP 2.2] |
| 2nd Nine Weeks | 4th Nine Weeks |
| Unit Three: Circular Motion (7 – 9 Days)   * 1.C.3.1, 2.B.1.1, 2.B.2.1, 2.B.2.2, 3.A.2.1, 3.A.3.1, 3.A.3.3, 3.A.4.1, 3.A.4.2, 3.A.4.3, 3.B.1.2, 3.B.1.3, 3.B.2.1, 3.C.1.1, 3.C.1.2, 3.C.2.2, 3.G.1.1,  4.A.2.2   Unit Four: Energy (19 – 22 Days)  **Topic 4.1 Open and Closed Systems: Energy**   * 5.A.2.1 [SP 6.4, 7.2]   **Topic 4.2 Work and Mechanical Energy**   * 3.E.1.1 [SP 6.4, 7.2] * 3.E.1.2 [SP 1.4] * 3.E.1.3 [SP 1.4, 2.2] * 3.E.1.4 [SP 2.2] * 4.C.1.1 [SP 1.4, 2.1, 2.2] * 4.C.1.2 [SP 6.4] * 4.C.2.1 [SP 6.4] * 4.C.2.2 [SP 1.4, 2.2, 7.2]   **Topic 4.3 Conservation of Energy, W-E Principle, and Power**   * 5.B.1.1 [SP 1.4, 2.2] * 5.B.1.2 [SP 1.5] * 5.B.2.1 [SP 1.4, 2.1] * 5.B.3.1 [SP 2.2, 6.4, 7.2] * 5.B.3.2 [SP 1.4, 2.2] * 5.B.3.3 [SP 1.4, 2.2] * 5.B.4.1 [SP 6.4, 7.2] * 5.B.4.2 [SP 1.4, 2.1, 2.2] * 5.B.5.1 [SP 4.2, 5.1] * 5.B.5.2 [SP 4.2, 5.1] * 5.B.5.3 [SP 1.4, 2.2, 6.4] * 5.B.5.4 [SP 6.4, 7.2] * 5.B.5.5 [SP 2.2, 6.4] | Unit Seven: Torque (continued)  Mock Exam  Review  Exam |

Student Expectations (TEKS) in green: Identified by TEA as a Readiness Standard of the assessed curriculum.

Student Expectations (TEKS) in yellow: Identified by TEA as a Supporting Standard of the assessed curriculum.

Student Expectations (TEKS) in purple: Identified by TEA as a Process Standard of the assessed curriculum.

Student Expectations (TEKS) in black: NOT Identified by TEA as a Readiness Standard of the assessed curriculum.

**If a course does not have readiness, supporting, or process standands identitfied, Power Standards will be color coded in green.**