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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 ExamReviewExam |

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.**