|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| **Pre-Planning: Unpacking the Standards** | **TEKS:**(R) - Readiness Standard(S) -Supporting Standard | Ⓡ SCI.8.6A Demonstrate and calculate how unbalanced forces change the speed or direction of an object’s motion.Ⓢ SCI.8.6B Differentiate between speed, velocity and acceleration | Ⓡ SCI.8.6A Demonstrate and calculate how unbalanced forces change the speed or direction of an object’s motion.Ⓢ SCI.8.6B Differentiate between speed, velocity and acceleration | Ⓡ SCI.8.6A Demonstrate and calculate how unbalanced forces change the speed or direction of an object’s motion.Ⓢ SCI.8.6B Differentiate between speed, velocity and acceleration | Ⓡ SCI.8.6A Demonstrate and calculate how unbalanced forces change the speed or direction of an object’s motion.Ⓢ SCI.8.6B Differentiate between speed, velocity and acceleration. | Ⓡ SCI.8.6A Demonstrate and calculate how unbalanced forces change the speed or direction of an object’s motion.Ⓢ SCI.8.6B Differentiate between speed, velocity and acceleration. |
| **Verb(s)**- What verbs define the actions students will need to take when mastering this objective? | * Demonstrate
* Calculate
* Differentiate
 | * Demonstrate
* Calculate
* Differentiate
 | * Demonstrate
* Calculate
* Differentiate
 | * Demonstrate
* Calculate
* Differentiate
 | * Demonstrate
* Calculate
* Differentiate
 |
| **Concept** -What am I teaching? -What do the students need to know? | Balanced and unbalanced forces Types of forces | Balanced and unbalanced forces Types of forces | Speed, distance ,directionTypes of forces | Speed, distance ,directionTypes of forces | Balanced and unbalanced forces Speed, distance ,directionTypes of forces |
| **Context*****Readiness:**** Connections from previous grade level.
* To what degree will this impact learning two years down the road?

***Supporting:**** What Readiness Standards or concepts from the Readiness Standards does it support?
* How does it support the Readiness Standards?
 | **In Grade 6, students:**\* identified and described the changes in position, direction, and speed of an object when acted upon by forces,calculated average speed using distance and time measurements, and measured and graphed changes in motion**In Grade 7, students:**\* demonstrated and illustrated forces that affect motion in everyday life | **In Grade 6, students:**\* identified and described the changes in position, direction, and speed of an object when acted upon by forces,calculated average speed using distance and time measurements, and measured and graphed changes in motion**In Grade 7, students:**\* demonstrated and illustrated forces that affect motion in everyday life | **In Grade 6, students:**\* identified and described the changes in position, direction, and speed of an object when acted upon by forces,calculated average speed using distance and time measurements, and measured and graphed changes in motion**In Grade 7, students:**\* demonstrated and illustrated forces that affect motion in everyday life | **In Grades 6, students:**\* identified and described the changes in position, direction, and speed of an object when acted upon by forces,calculated average speed using distance and time measurements, and measured and graphed changes in motion**In Grade 7, students:**\* demonstrated and illustrated forces that affect motion in everyday life | **In Grades 6, students**:\* identified and described the changes in position, direction, and speed of an object when acted upon by forces,calculated average speed using distance and time measurements, and measured and graphed changes in motion**In Grade 7, students**:\* demonstrated and illustrated forces that affect motion in everyday life |
| **I will know my students have mastered this standard when they can….** | Differentiate and demonstrate balanced and unbalanced forces | Differentiate and demonstrate balanced and unbalanced forces | Distinguish between speed, velocity and acceleration. | Distinguish between speed, velocity and acceleration. | * Differentiate and demonstrate balanced and unbalanced forces
* Distinguish between speed, velocity and acceleration.
 |
| **I will assess the standard by…..** | Plickers, cold calls, asking leading questions  | Plickers, cold calls, asking leading questions |  | Plickers, cold calls, asking leading questions | Plickers, cold calls, asking leading questions |
| **Vocabulary**(Academic and Content) | * balanced forces
* unbalanced forces
* kinetic energy
* acceleration
* reference point
* momentum
* **velocity**
* **potential energy**
* **reference point**
* **net force**
 | * balanced forces
* unbalanced forces
* kinetic energy
* acceleration inertia
* reference point
* momentum
* **velocity**
* **potential energy**
* **reference point**
* **net force**
 | * balanced forces
* unbalanced forces
* kinetic energy
* acceleration inertia
* reference point
* momentum
* **velocity**
* **potential energy**
* **reference point**
* **net force**
* Newton’s Laws of Motion
 | * balanced forces
* unbalanced forces
* kinetic energy
* acceleration inertia
* reference point
* momentum
* **velocity**
* **potential energy**
* **reference point**
* **net force**
* Newton’s Laws of Motion
 | * balanced forces
* unbalanced forces
* kinetic energy
* acceleration inertia
* reference point
* momentum
* **velocity**
* **potential energy**
* **reference point**
* **net force**
* Newton’s Laws of Motion
 |
| **Lesson Topic** (Content Objective) | Balanced and unbalanced forces | Balanced and unbalanced forces | Speed , Velocity and Acceleration | Speed , Velocity and Acceleration | * Balanced and unbalanced forces
* Speed , Velocity and Acceleration
 |
| **ELPS** (Language Objective) | * ELPS C.1a Use prior knowledge and experiences to understand meanings in English.
* ELPS C.1e Internalize new basic and academic language by using and reusing it in meaningful ways in speaking and writing activities that build concept and language attainment.
* ELPS C.4g Demonstrate comprehension of increasingly complex English by participating in shared reading, retelling or summarizing material, responding to questions, and taking notes commensurate with content area and grade level needs.

ELPS C.5b Write using newly acquired basic vocabulary and content-based grade-level vocabulary. | * ELPS C.1a Use prior knowledge and experiences to understand meanings in English.
* ELPS C.1e Internalize new basic and academic language by using and reusing it in meaningful ways in speaking and writing activities that build concept and language attainment.
* ELPS C.4g Demonstrate comprehension of increasingly complex English by participating in shared reading, retelling or summarizing material, responding to questions, and taking notes commensurate with content area and grade level needs.

ELPS C.5b Write using newly acquired basic vocabulary and content-based grade-level vocabulary. | * ELPS C.1a Use prior knowledge and experiences to understand meanings in English.
* ELPS C.1e Internalize new basic and academic language by using and reusing it in meaningful ways in speaking and writing activities that build concept and language attainment.
* ELPS C.4g Demonstrate comprehension of increasingly complex English by participating in shared reading, retelling or summarizing material, responding to questions, and taking notes commensurate with content area and grade level needs.

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ELPS C.5b Write using newly acquired basic vocabulary and content-based grade-level vocabulary. |
| **Lesson Cycle** | **Engage:** **Warm-Up/Opening** **(5 min)** | Students Activity : “Find Someone Who.” Students will find someone in their class who they believe will be able to tell them what the terms speed, velocity, and acceleration  |  | Review the ‘Big Idea,’ p. 146, S.E. and gauge students’ background knowledge and preconception about speed,velocity, and acceleration. Ask the guiding questions, p. 146, T.E. |  | Common Assessment UNIT 3 : TEKS 8.6A& 8.6B  |
| **Explore:****INM/Review (0 min):** | Station labs to explore the concept of speed , Velocity and Acceleration |  | Students complete a report, including graphs and calculations, showing how unbalanced forces change the speed or direction of the object’s motion. Include information illustrating the differences between speed, velocity, and acceleration | Word Problems : Speed , Velocity Acceleration Students will explore different scenario’s on Speed Velocity and acceleration to understand the use of formulas and calculations. |   |
| **Explain:****Guided Practice**  |  | Edusmart video and simulation | Graphing Motion  |  |  |
| **Elaborate:****Independent Practice (20 min):** |  | Students use simple experiment to demonstrate how unbalanced forces change the speed or direction of an object’s motion. Students should include a testable hypothesis along with steps to follow to conduct the investigation. |  |  |  |
| **Evaluate:****Closing (5 min.):** |  | Each student lists 3 – 5 ideas about the unit topic “force and motion.” | Exit : Complete graphs for Speed, Velocity and Acceleration | Exit Ticket : Complete the calculations  | Complete 15 Question Test  |
| **Reinforcement** | **Materials/ Resources:** |  | Refer Balanced and unbalanced forces power point for materials |  |  |  |
| **Homework** | 3 Questions from homework calendar. | 3 Questions from homework calendar. | 3 Questions from homework calendar. | 3 Questions from homework calendar. |  |
| **MODIFICATIONS and/or ACCOMODATIONS:***-Gifted and Talented**-ELL/ ESL**-Special Education* | Shortened Assignments, Highlight key vocabulary, Print Lectures for Student | Shortened Assignments, Highlight key vocabulary, Print Lectures for Student | Shortened Assignments, Highlight key vocabulary, Print Lectures for Student | Shortened Assignments, Highlight key vocabulary, Print Lectures for Student | Shortened Assignments, Highlight key vocabulary, Print Lectures for Student |

**\*All lesson plans are subject to revisions and addendums by teacher.**