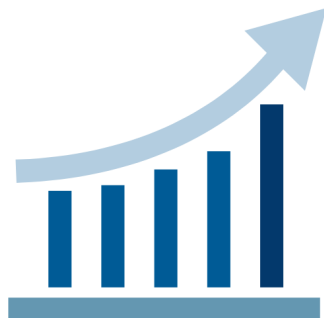




WESTSIDE HIGH SCHOOL

Level Up: *RISE* to Your Potential

24-25 Lesson Plan Template

Teacher: **Asma Akhter**

Subject: **On level physics A**

Week of: DATE 10/28/2024	Monday 10/28	Tuesday 10/29	Wed./Thurs 10/30&10/31	Friday 11/01
TEKS	P.5H Describe and calculate, using scientific notation, how the magnitude of force between two objects depends on their masses and the distance between their centers, and predict the effects on objects in linear and orbiting systems using Newton's law of universal gravitation. Universal Gravitational Law: Orbiting system P.5D Describe and analyze acceleration in uniform circular and horizontal projectile motion in two dimensions using equations	P.5H Describe and calculate, using scientific notation, how the magnitude of force between two objects depends on their masses and the distance between their centers, and predict the effects on objects in linear and orbiting systems using Newton's law of universal gravitation.	P.5D Describe and analyze acceleration in uniform circular and horizontal projectile motion in two dimensions using equations. P.5H Describe and calculate, using scientific notation, how the magnitude of force between two objects depends on their masses and the distance between their centers, and predict the effects on objects in linear and orbiting systems using Newton's law of universal gravitation. Universal Gravitational Law: Orbiting Systems.	P.5D Describe and analyze acceleration in uniform circular and horizontal projectile motion in two dimensions using equations. P.5H Describe and calculate, using scientific notation, how the magnitude of force between two objects depends on their masses and the distance between their centers, and predict the effects on objects in linear and orbiting systems using Newton's law of universal gravitation. Universal Gravitational Law: Orbiting Systems.
Learning	SWBAT describe and	SWBAT analyze complex	SWBAT analyze complex	SWBAT describe and

Objective	analyze orbital motion, angular velocity, centripetal acceleration and centripetal force in two dimensions using equations.	scenarios involving gravitational forces to predict their effects on orbiting systems.	scenarios involving gravitational forces to predict their effects in linear systems.	analyze orbital motion, angular velocity, centripetal acceleration and centripetal force in two dimensions using equations.
Higher Order Thinking Questions	- How does the radius from the center of mass affect velocity of objects in orbital motion? - How can Newton's second law of motion be used to describe circular motion?	What is the relationship between the speed, period, and radius of orbital motion?	- What are gravitational fields? - How are linear systems affected by Newton's universal law of gravitation? - How does gravity affect the speed of orbital motion?	- How does the radius from the center of mass affect velocity of objects in orbital motion? - How can Newton's second law of motion be used to describe circular motion?
Agenda	- Do Now - Student Activity - DOL - Quizizz.com	- Do now - Student activity sheet - DOL - Quizizz.com	- Do now (1 and 2 from review) - Review for the test - DOL (last question from review)	Test 3
Demonstration of Learning	Given 5 questions, students will calculate gravitational force between two objects using the equation for Newton's law of universal gravitation and describe the relationship between mass and the distance that separates them by answering at least 4 of 5 questions correctly.	Given 5 questions, students will analyze complex scenarios involving gravitational forces to predict their effects on orbiting systems by answering at least 4 of 5 questions correctly.	Given a series of questions, students will analyze complex scenarios involving gravitational forces to predict their effects in linear systems by answering at least last two questions from the review.	Test 3

Intervention & Extension	Extra time Extended time	Extra time Extended time	At least finish 50% and one extra day	Extended time or less number of questions
Resources	HISD resources	District resources Lab hand out	District resources	District resources