**Chapter 3 – Gravity & Motion**

KUDO’s (Know, Understand and Do!)

**Section 3.1 Inertia & 3.2 Orbital Motions and Gravity**

**Know:** Inertia, Newton’s First Law of Motion

**Understand:**

* Conceptually Newton’s First Law of Motion

**Be able to DO:**

* Discuss Newton’s First Law of Motion in different situations

**Assignments:**

1. Read pages 73-76

2. Guided Notes & PPT

3. Vocabulary from Know

4. Whiteboard questions: **QFR:** 1-3; **TQ:** 1-4

**Section 3.3 Newton’s Second Law & 3.4 Law of Gravity**

**Know:**  Acceleration, Mass, Net Force, Newton’s Second Law, Law of Gravity

**Understand:**

* How acceleration, mass and net force are related
* Gravity is a universal force

**Be able to DO:**

* Calculate Newton Second Law Problems
* Calculate Universal Law of Gravitation Problems

**Assignments:**

1. Read pages 76-79

2. Guided Notes & PPT

3. Vocabulary to know

4. Whiteboard questions: **QFR:** 4-5; **TQ:** 5 **Problems:** 1-3

**Section 3.5** **Newton’s Third Law**

**Know:**  Newton’s Third Law

**Understand:**

* Newton’s Third Law

**Be able to DO:**

* Discuss how two object interact

**Assignments:**

1. Read pages 79-80

2. PPT & guided notes

3. Whiteboard questions: **TQ:** 9

**Section 3.6 –Measuring an Objects Mass Using Orbital Motion & 3.7 Surface Gravity**

**Know:** Surface Gravity

**Understand:**

* How the equations are derived

**Be able to DO:**

* Calculate mass using force of gravity

**Assignments:**

1. Read pages 80-83

2. Guided Notes & PPT

3. Whiteboard questions: **QFR:** 8 **TQ:** 11 **Problems:** 5& 6

**Section 3.8 Escape Velocity**

**Know:** Escape Velocity

**Understand:**

* How a rocket/satellite is able to escape Earth

**Be able to DO:**

* Calculate mass using force of gravity

**Assignments:**

1. Read pages -8385

2. Guided Notes & PPT

3. Whiteboard questions: **QFR:** 9 **Problems:** 8--11