# Lesson plans November 11 to November 15, 2019 Lesson Plans for Mr. Woolslayer Room 200

## Monday A day

Vet's Day/ Parent Teacher Conferences

## Tuesday B day

8:05 to 8:49 Physics II:

**Objective:** Students will solve for the resistance of a resistor using its color code and check its actual resistance with a multi-meter.

PA standard: 3.2.P.B1

Activity: Finish Resistor lab and resistor problems

**Evaluation:** Completed Resistor problems and resistor lab

*Enrichment/Remediation:* Tutoring is available by appointment before school, 9<sup>th</sup> period or after school. Extra credit: Engineering project: Build mouse trap car(s) using a single mouse trap as its source of energy for speed or maximum distance.

## 8:53-9:34 Physics lab

**Objective:** Students will develop a google sheet to determine key components of a projectiles trajectory.

PA standard: 3.2.P.B1

Activity: Air rocket activity

*Evaluation:* Completed Google sheet with angle horizontal velocity and altitude

*Enrichment/Remediation:* Tutoring is available by appointment before school, 9<sup>th</sup> period or after school. Extra credit: Engineering project: Build mouse trap car(s) using a single mouse trap as its source of energy for speed or maximum distance.

## 9:38-10:19 General Physical Science

**Objective:** Students will discover the nucleus of model atoms by probing it with a tooth pick

#### PA standard: PA standard: 3.2P.B7

Activity: Finish model atom lab, notes, demonstrations, discussion and video clips on models of the atoms.

Evaluation: Lab sketches from probes of model atoms Notebook check

*Enrichment/Remediation:* Tutoring is available by appointment before school, 9<sup>th</sup> period or after school. Extra credit: Engineering project: Build mouse trap car(s) using a single mouse trap as its source of energy for speed or maximum distance.

10:23 to 11:04 General Physical Science:

**Objective:** Students will discover the nucleus of model atoms by probing it with a tooth pick

PA standard: PA standard: 3.2P.B7

Activity: Finish model atom lab, notes, demonstrations, discussion and video clips on models of the atoms.

*Evaluation:* Lab sketches from probes of model atoms Notebook check

*Enrichment/Remediation:* Tutoring is available by appointment before school, 9<sup>th</sup> period or after school. Extra credit: Engineering project: Build mouse trap car(s) using a single mouse trap as its source of energy for speed or maximum distance.

11:08 to 11:49 Study hall in the Room 200

11:49 to 12:19 Eat B Lunch

12:23 to 1:04 C lunch duty

1:08 to 1:49 Physics

**Objective:** Students will solve for the range, apex and final velocity of projectiles launched at angle.

PA standard: 3.2.P.B1

Activity: Go over formulas and sample problems on page 101: projectiles launched horizontal.

**Evaluation:** Completed problems on page 101

**Enrichment/Remediation:** Tutoring is available by appointment before school,  $9^{th}$  period or after school. Extra credit: Engineering project: Build mouse trap car(s) using a single mouse trap as its source of energy for speed or maximum distance.

1:53 to 2:34 Prep

2:38-3:08 Sci-fi theater club

3:08 to 3:30 Gym Lobby Duty.

Wednesday

8:05 to 8:49 Physics II A day

**Objective:** Students will connect circuits in series and parallel

PA standard: 3.2.P.B1

Activity: Electric circuit lab PHET

*Evaluation:* Functional circuits and schematic drawings of their circuits.

*Enrichment/Remediation:* Tutoring is available by appointment before school, 9<sup>th</sup> period or after school. Extra credit: Engineering project: Build mouse trap car(s) using a single mouse trap as its source of energy for speed or maximum distance.

## 8:53-9:34 Prep

#### 9:38-10:19 General Physical Science:

**Objective:** Students will describe atoms in terms of atomic number, atomic mass, electrons, protons, and neutrons. Students will determine the number of moles given an atom's atomic mass and it's mass. Students will determine the number of protons, electrons and neutrons given is atomic number and its atomic mass.

## PA standard: PA standard: 3.2P.B7

Activity: Notes, demonstrations, discussion and PHET simulations, video clips on Atomic number, atomic mass, isotopes and moles. Handout problems on atomic mass and atomic number.

Evaluation: Note check and completed handout problems.

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#### 10:23 to 11:04 General Physical Science:

**Objective:** Students will describe atoms in terms of atomic number, atomic mass, electrons, protons, and neutrons. Students will determine the number of moles given an atom's atomic mass and it's mass. Students will determine the number of protons, electrons and neutrons given is atomic number and its atomic mass.

#### PA standard: PA standard: 3.2P.B7

Activity: Notes, demonstrations, discussion and PHET simulations, video clips on Atomic number, atomic mass, isotopes and moles. Handout problems on atomic mass and atomic number.

*Evaluation:* Note check and completed handout problems.

*Enrichment/Remediation:* Tutoring is available by appointment before school, 9<sup>th</sup> period or after school. Extra credit: Engineering project: Build mouse trap car(s) using a single mouse trap as its source of energy for speed or maximum distance.

## 11:08 to 11:49 Study hall in the Room 200

11:49 to 12:19 Eat B Lunch

12:23 to 1:04 C lunch duty

1:08 to 1:49 Physics

**Objective:** Students will solve for relative velocity problems

PA standard: 3.2.P.B1

Activity: Go over formulas and sample problems on page 105

*Evaluation: Completed problems on page 105* 

*Enrichment/Remediation:* Tutoring is available by appointment before school, 9<sup>th</sup> period or after school. Extra credit: Engineering project: Build mouse trap car(s) using a single mouse trap as its source of energy for speed or maximum distance.

## 1:53 to 2:34 Physics Lab

**Objective:** Students will launch air powered projectiles. And measure their altitude and range using the time in flight and launch angle

PA standard: 3.2.P.B1

Activity: Air rocket activity

*Evaluation:* Completed Google sheet with maximum range and maximum altitude

*Enrichment/Remediation:* Tutoring is available by appointment before school, 9<sup>th</sup> period or after school. Extra credit: Engineering project: Build mouse trap car(s) using a single mouse trap as its source of energy for speed or maximum distance.

2:38- 3:08 7<sup>th</sup> grade HR 3:08 to 3:30 Gym Lobby Duty.

Thursday B day

8:05 to 8:49 Physics II:

**Objective:** Students will determine the terminal voltage of a battery given its internal resistance and EMF .Students will understand how to properly jump start a car with a weak battery with a car with a stronger battery

PA standard: 3.2.P.B1

Activity: Notes, discussion, video clips and problems with EMF and terminal voltage

*Evaluation:* Completed Sg 18

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8:53-9:34 Physics lab

Objective: Students will investigate the mass vs the speed of a Pasco car..

PA standard: 3.2P.B7

Activity: Pasco car mass vs speed lab.

Evaluation: Spread sheet and graph of mass vs. speed

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#### 9:38-10:19 General Physical Science

*Objective:* Students will define words related to the atomic theory and parts of an atom. Students will describe the various historic models of the atoms.

PA standard: PA standard: 3.2P.B7

Activity: Notes, demonstrations, discussion and video clips on models of atoms over time.

Evaluation: note book check

*Enrichment/Remediation:* Tutoring is available by appointment before school, 9<sup>th</sup> period or after school. Extra credit: Engineering project: Build mouse trap car(s) using a single mouse trap as its source of energy for speed or maximum distance.

#### 10:23 to 11:04 General Physical Science:

**Objective:** Students will define words related to the atomic theory and parts of an atom. Students will describe the various historic models of the atoms.

PA standard: PA standard: 3.2P.B7

Activity: Notes, demonstrations, discussion and video clips on models of atoms over time.

*Evaluation:* note book check

**Enrichment/Remediation:** Tutoring is available by appointment before school,  $9^{th}$  period or after school. Extra credit: Engineering project: Build mouse trap car(s) using a single mouse trap as its source of energy for speed or maximum distance.

11:08 to 11:49 Study hall in the Room 200

11:49 to 12:19 Eat B Lunch

12:23 to 1:04 C lunch duty

1:08 to 1:49 Physics

*Objective:* Student will resolve vectors into the x and y components and will add vectors to determine the resultant magnitude, direction and bearing,

PA standard: PA standard: 3.2P.B7

Activity: Vector quiz

**Evaluation:** Completed Vector quiz

**Enrichment/Remediation:** Tutoring is available by appointment before school, 9<sup>th</sup> period or after school. Extra credit: Engineering project: Build mouse trap car(s) using a single mouse trap as its source of energy for speed or maximum distance.

1:53 to 2:34 Prep

2:38-3:08 Science Fiction Theater

3:08 to 3:30 Gym Lobby Duty.

Friday A day

8:05 to 8:49 Physics II:

*Objective: Students will understand the history of a batteries and their manufacture.* 

PA standard: 3.2.P.B1

Activity View, discuss and answer questions about MU The battery

**Evaluation:** Completed MU the battery questions

*Enrichment/Remediation:* Tutoring is available by appointment before school, 9<sup>th</sup> period or after school. Extra credit: Engineering project: Build mouse trap car(s) using a single mouse trap as its source of energy for speed or maximum distance.

8:53-9:34 Prep

9:38-10:19 General Physical Science

**Objective:** Students will draw the electron structure and nucleus of an atom given its atomic number, atomic mass and charge.

PA standard: PA standard: 3.2P.B7

Activity: Drawing model atoms and making model atoms with an atomic simulator

Evaluation: Lab sketches and labels

*Enrichment/Remediation:* Tutoring is available by appointment before school, 9<sup>th</sup> period or after school. Extra credit: Engineering project: Build mouse trap car(s) using a single mouse trap as its source of energy for speed or maximum distance

10:23 to 11:04 General Physical Science:

**Objective:** Students will draw the electron structure and nucleus of an atom given its atomic number, atomic mass and charge.

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11:08 to 11:49 Study hall in room 200

11:49 to 12:19 Eat B Lunch

12:23 to 1:04 Lunch Duty

1:08 to 1:49 Physics

Objective: Students will understand the law of Inertia and concept of relative motion.

PA standard: 3.2.P.B1

Activity: View and discuss MU the Law of Inertia

**Evaluation:** completed MU law of inertia video questions.

**Enrichment/Remediation:** Tutoring is available by appointment before school,  $9^{th}$  period or after school. Extra credit: Engineering project: Build mouse trap car(s) using a single mouse trap as its source of energy for speed or maximum distance

# 1:53 to 2:34 PHYSICS LAB

Objective: Students will investigate the mass vs the speed of a Pasco car..

PA standard: 3.2P.B7

Activity: Pasco car mass vs speed lab.

**Evaluation:** Spread sheet and graph of mass vs. speed

*Enrichment/Remediation:* Tutoring is available by appointment before school, 9<sup>th</sup> period or after school. Extra credit: Engineering project: Build mouse trap car(s) using a single mouse trap as its source of energy for speed or maximum distance.

2:38-3:08 HR 7<sup>th</sup> grade

3:08 to 3:30 Gym Lobby Duty.