## Unit 5 Calendar

| Monday | Tuesday | Wednesday | Thursday | Friday |
|--------|---------|-----------|----------|--------|
| 17<br><br>Energy Content | 18<br><br>Energy Skate Park | 19<br><br>Energy Practice | 20<br><br>Power & Work Content | 21<br><br>Energy, Power & Work Lab |
| 24<br><br>Energy, Power and Work Lab | 25<br><br>Power & Work Practice | 26<br><br>Review<br>Catch Up Day | 27<br><br>Unit 5 Test & Binder Check | 28 |

# Unit 5: Energy



Let's learn about energy! This unit will help you learn the fundamentals of energy and relate this to power and work. We will work in a skate park, turn energy to calories and analyze a roller coaster!

**Required Elements:**
- ☐ Unit 5 Quiz
- ☐ Unit 5 Binder Check

**Choice Elements:**
- ☐ 2 Energy Content
- ☐ 1 Energy Skate Park (PHET)
- ☐ 2 Energy Practice
- ☐ 2 Power & Work Content
- ☐ 2 Power & Work Practice
- ☐ 1 Energy, Power & Work Lab

## Energy

**Content Elements – Choose 2**

☐ Video Lesson – Watch video lectures about the subject and take notes.

☐ Mini Lecture– Attend a mini lecture with your teacher to learn the content and take notes.

☐ Online tutorial– Read through a tutorial and complete questions.

**Skate Park PHET Lab**

☐ How does energy affect the skate park? Learn

**Practice Elements – Choose 2**

☐ Challenge I

☐ Challenge II

☐ Challenge III

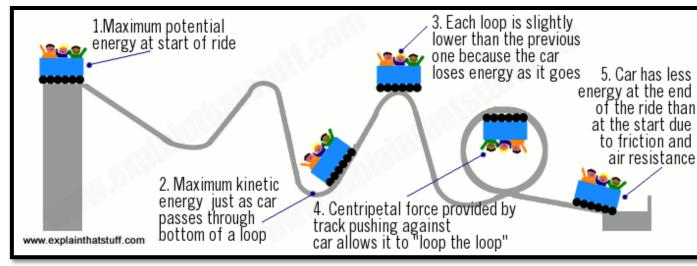## Power and Work

**Content Elements – Choose 2**

☐ Video Lesson – Watch video lectures about the subject and take notes.

☐ Mini Lecture– Attend a mini lecture with your teacher to learn the content and take notes.

☐ Online tutorial– Read through a tutorial and complete questions.

**Practice Elements – Choose 2**

☐ Challenge I

☐ Challenge II

☐ Challenge III

**Energy, Power and Work Lab**

☐ Complete this two day lab with a partner or small group to explore how energy, power and work are related to each other. Get ready to move!

## Binder Check Rubric

*Binders must be organized with contents from oldest to newest*

____/20 Energy Content

____/20 Energy Skate Park (PHET Lab)

____/20 Energy Practice

____/20 Power & Work Content

____/20 Power & Work Practice

____/20 Energy, Power & Work Lab

____/10 Correct Binder Order

=

_____/130 Unit 5 Binder Check



1. Maximum potential energy at start of ride

2. Maximum kinetic energy just as car passes through bottom of a loop

3. Each loop is slightly lower than the previous one because the car loses energy as it goes

4. Centripetal force provided by track pushing against car allows it to "loop the loop"

5. Car has less energy at the end of the ride than at the start due to friction and air resistance

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