

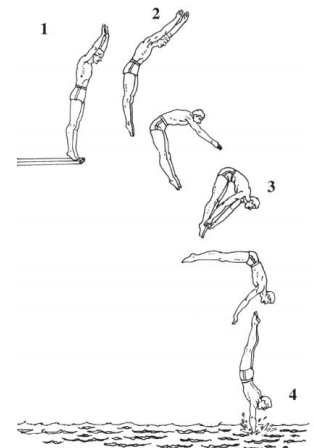
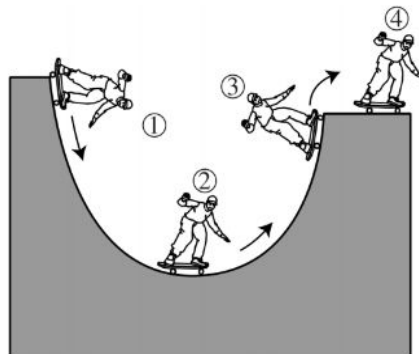
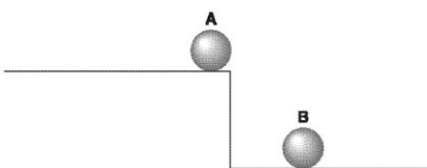
## Study Guide Unit 3 Test

1. Define Energy:
2. Complete the table below

Type of Energy	Definition	Example(s)
<b>Kinetic Energy</b>		
<b>Gravitational Potential Energy</b>		
<b>Elastic Potential Energy</b>		
<b>Thermal Energy</b>		
<b>Chemical Energy</b>		
<b>Sound Energy</b>		

3. State whether gravitational potential energy increases or decreases in each situation:
  - a. Your mass decreases
  - b. Your mass increases
  - c. You get farther from earth's surface
  - d. You get closer to earth's surface
  - e. You are falling and get closer to the ground

4. In the pictures label when there is the most GPE and when there is the least



5. Match the types of energy to the statement
  - a. A spring stretched as far as it can go
  - b. A spring is released and moves
  - c. A ball is rolling down a hill
  - d. A rubber band is stretched tight
  
6. If you push on an object but it does not move, did you do work?
  
7. If you and your friend both take the test, and it takes you 30mins but your friend 60mins who did more work?
  
8. If you and your friend both take the test, and it takes you 30mins but your friend 60mins, who had more power?
  
9. How much energy does a 10kg person have when they are 100m high?
  
10. How much energy does a person who weighs 10N have when they are 100m high?
  
11. How much energy does a 10kg ball have when it is thrown at a velocity of 4m/s?
  
12. How much work is done when an 30W of power are used if 15s?
  
13. How much power is needed to complete 200J of work in 20s?
  
14. How far can a box move if do 200J of work and 20N of force?

Draw three pie charts showing the energy transfer for each picture

