BALI KIDDY SECONDARY SCHOOL

ACADEMIC YEAR 2020/2021

SCIENCE WEEK 4 ASSIGNMENT

Topic : Simple Machine

Objectivities :

1. Describe the equilibrium moment
2. Describe the effect of mechanical advantage (MA) and its factor of a simple machine
3. Describe the work of lever, inclined line, pulley and wheels & axles
4. Calculate the MA of some simple machines
5. Calculate the moments of an equilibrium state of lever

Name :

Presence list number :

Class :

Date :

Questions

1. How are the clockwise and anti-clockwise moments of a balance seesaw?

   Answer:

2. Describe the difference in MA of a pair of small scissor and the big one.

Answer:

3. Why do the roads wind up at the mountains rather than go straight?

Answer:

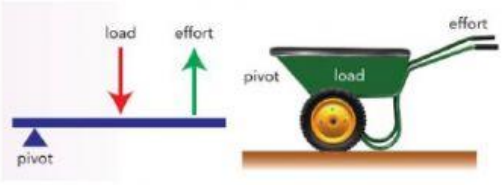
4. Match the class of the lever and its correct diagrams.

a. First class lever

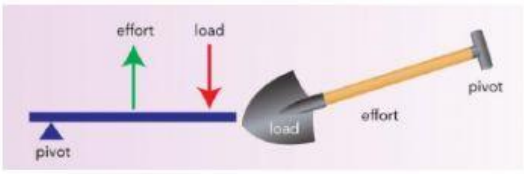
b. Second class lever

c. Third class lever

1.



2.



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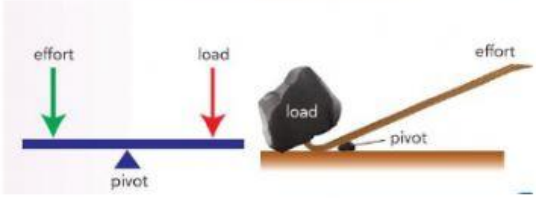
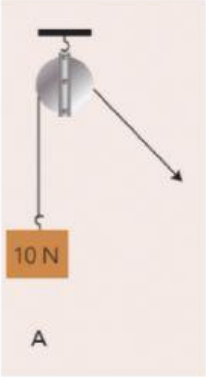


5. Which of the diagram below requires less force to move the load?

a. 

b.

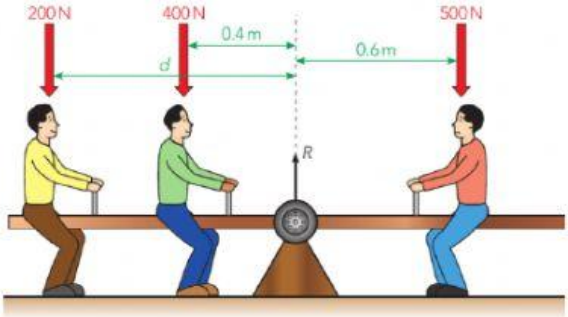
6. Describe how wheels and axles work and give two examples.

Answer:

7. A wheel with radius of 90 cm is applied on an axle with radius 30 cm. What is the mechanical advantage of the system?

   Answer: _____

8. Look at the diagram below.

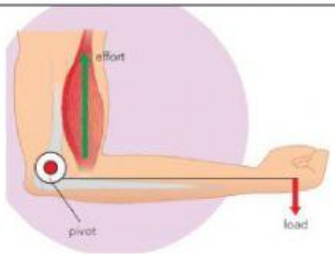
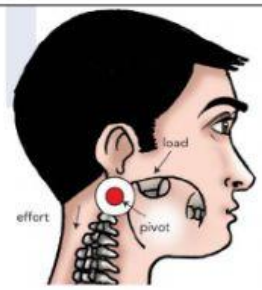


Person 1's weight is 500 N. The moment is _____. The direction of the moment is (fill with clock-wise and anti-clockwise) _____.

Person 2's weight is 400 N. The moment is _____. The direction of the moment is (fill with clock-wise and anti-clockwise) _____.

Person 3's weight is 300 N. The moment is _____. The d must be _____ meters. The direction of the moment is (fill with clock-wise and anti-clockwise) _____.

9. Match the human body diagram with the correct class of levers.

a. First class lever		1.
b. Second class lever		2. 
c. Third class lever		3.