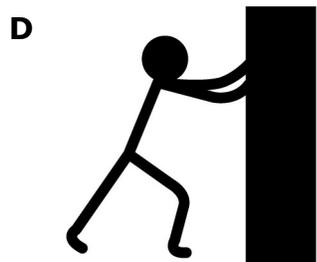
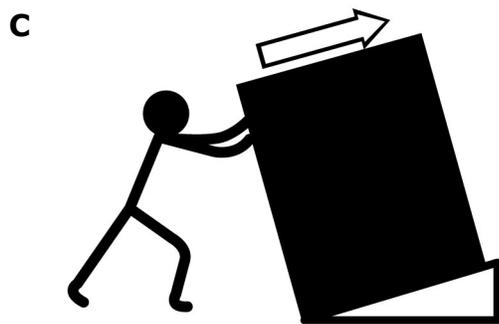
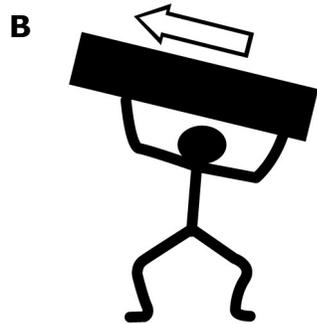
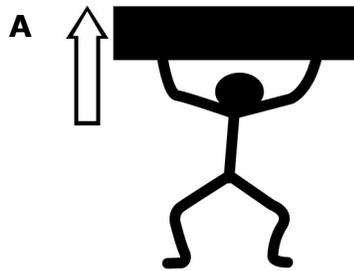


## CISD Grade 7 Science Unit 03

Some questions (c) 2012 by CSCOPE.

1 Identify the situation in which no work is being done.



2 Identify a situation below in which work is being done.

F turning a page in a science book

G reading a science book

H resting a science book against the wall

J holding a science book

3 What evidence proves that no work is being done on an object?

A an object remains stationary

B an object moves

C an object has mass

D an object is rigid

4 A batter walks up to home plate with his bat, stands with his bat in the air, swings his bat, and makes contact with the ball. In which part of this situation is NO work occurring?

F batter walks up to home plate with his bat

G batter stands with his bat in the air

H batter swings the bat

J batter makes contact with the ball

5 How much work is done if a 2 N box is moved 4 m?

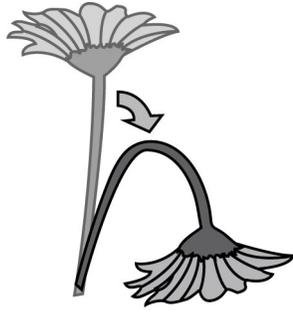
A .5 Nm

B 2 Nm

C 4 Nm

D 8 Nm

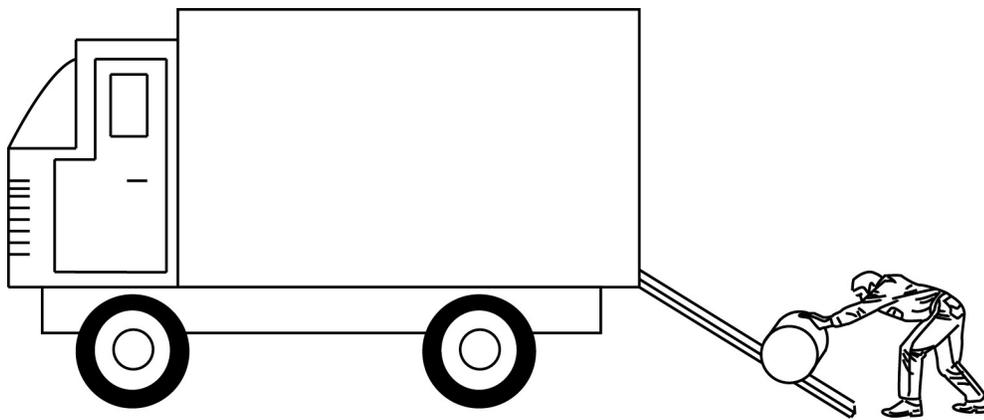
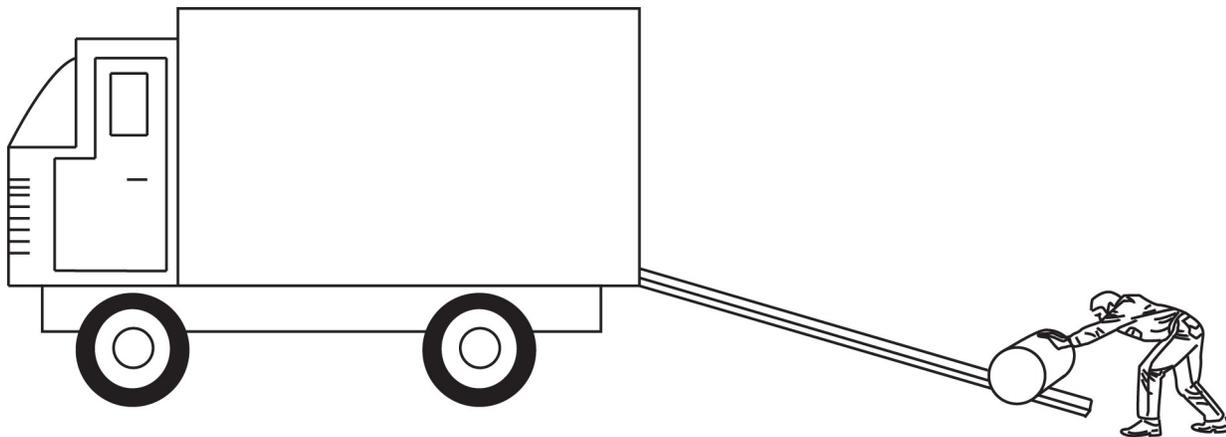
6 Refer to the diagram.



What caused this plant's behavior?

- F** response to gravity
- G** negative homeostasis
- H** excessive humidity
- J** lack of turgor pressure

Use the two ramp pictures below to answer the following questions.



- 7 Who has to use more force to move the barrel in the truck?
- A The man using the short ramp has to use more force.
  - B The man using the long ramp has to use more force.
  - C They are both using the same amount of force.
  - D There is not enough information to tell.

Use the following information to help answer the following four questions.

Your teacher has asked you to set up an experiment on how the angle of a ramp affects the amount of force needed to move a 1 kg object.

- 8 Which of the following pieces of equipment would you use for the experiment?

I.	ramp
II.	triple beam balance
III.	spring scale
IV.	graduated cylinder
V.	1 kg mass

- F I, II, and V  
G I, III, and V  
H I, II, III, and V  
J I, III, and IV

- 9 Which of the following pieces of safety equipment should be used for the experiment?

- A goggles  
B gloves  
C apron  
D goggles and gloves

- 10 Which of the following data tables should be used to collect the data?

F

Force	Angle

G

Force	Mass

H

Angle	Force

J

Mass	Force

**11** The data for the experiment follows:

When the ramp was set at 90 degrees, it took 10 N of force to move the 1 kg object.

When the ramp was set at 60 degrees, it took 8.6 N of force to move the 1 kg object.

When the ramp was set at 30 degrees, it took 5 N of force to move the 1 kg object.

What conclusion can be made with the above data?