$\qquad$ Date $\qquad$

## Compound Machines Test: Grade 5 <br> /27

Question 1: Explain how a pair of scissors is a compound machine:
$\qquad$

Question 2: What mechanical advantage does a pair of scissors give its operator?
$\qquad$
Create a sketch of a commonly found compound machine and indicate with lines or arrows which simple machines it is made up of:

Question 4: Using an image and notes: Identify the mechanical advantage that a combined machine which combined a wheel and axle and a lever would provide its user.

Complete the chart below:

|  | Water <br> Transport | Hammers | Ploughs | Grading <br> machines |
| :--- | :--- | :--- | :--- | :--- |
| Then | An early <br> method of <br> travelling <br> was by <br> canoe. <br> Paddles acted <br> as levers and <br> the boat as a <br> wedge |  | Workers <br> needed to <br> work hard <br> clearing <br> roads: They <br> used hand <br> tools such as <br> picks, <br> shovels and <br> rakes. |  |
| Now |  | Today nail <br> guns have <br> largely <br> replaced <br> hammers. | Today large <br> graders, <br> backhoes, <br> and plows <br> smooth <br> surfaces or <br> clear snow |  |
|  |  |  |  |  |

Create a simple machine to complete a common household task such as: make a bed, open a window or cook your breakfast.

Name of Machine $\qquad$

Identify 4 simple machines found in your inventions and draw arrows beside where each is found $\mathbf{6}$ marks, 4 for correct identification of machines 2 for your labeled picture

Describe how your machine would make the common task easier.
*Mechanical advantages? 4 marks
$\qquad$
$\qquad$
$\qquad$
$\qquad$

