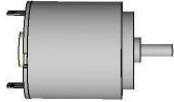


Fairground Rides Worksheet

Name:.....

Label these electrical parts:







Draw your circuit using these circuit symbols and using lines to represent the wires. Label the components.



Is metal an insulator or a conductor?

Is plastic an insulator or a conductor?

What could happen if you short circuit your battery?

What will happen if you leave the circuit switched on for a long time?

Why does the pulley need to be a tight fit on the rotating shaft?	
Which of your items are acting as bearings?	
Which item is acting as a drive belt to turn the shaft?	
Does a fairground ride with a larger pulley rotate faster or more slowly than one with a smaller pulley?	
Which forces are acting to slow your fairground ride down?	
Which tools did you use to make your fairground ride?	

Extension questions

Calculate the speed of your passengers as follows:

Time 10 rotations

Calculate number of revolutions per minute (rpm)

Estimate diameter of circle travelled by passengers

Calculate distance travelled in one revolution

Calculate distance travelled in one minute

Calculate distance travelled in one hour

Convert to miles per hour

If you were designing a real rotating fairground ride, suggest some safety aspects you would consider.

Explain why the size of the pulley affects how fast your fairground ride rotates.

