Student's name: _____ Group: _____

Analysis process

My animated object: study of objects

Object chosen



What is this object used for?

To whom does it belong and what is it used for?

_____

_____

_____

_____



How does it work?

Explain, in as much detail as possible, how your object works.

_____

_____

_____

_____

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_____

_____

_____

If you need to, make a drawing in the box at left.

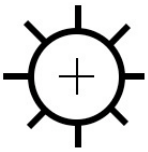
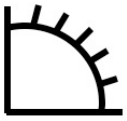
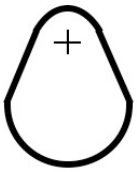
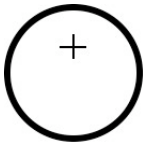
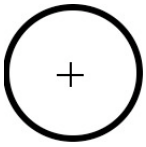
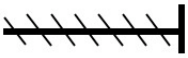
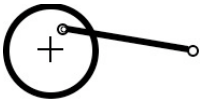


How is it built?

Are there mechanical parts in this object? Can you name them? Can you draw them?

Here are the symbols of mechanical parts and movements. Circle those that are in your object.

Mechanical parts

 gear	 toothed section	 compressible spring	 extensible spring
 spherical articulation	 oval cam	 round cam (exocentric)	 wheel
 nut	 screw	 Angular spring	 rack
 leaf spring	 rod and crank		

Movements

 part that turns and that travels at the same time	 part that turns (rotation)	 part that moves from left to right	 part that moves up and down



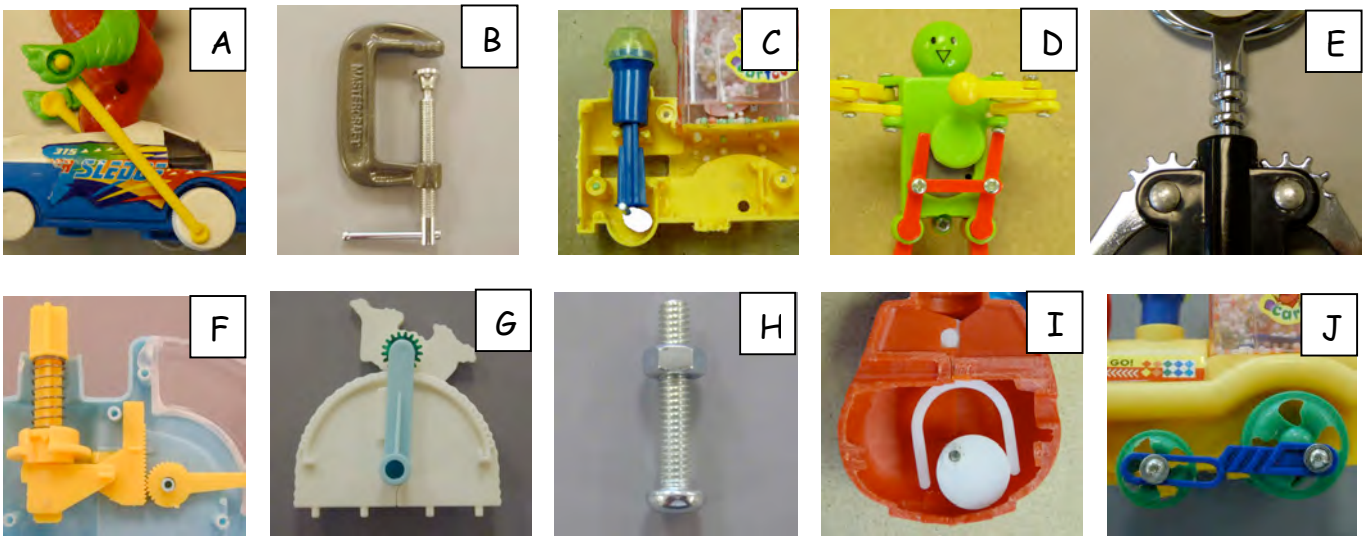
Are there objects that you know of that fulfill the same needs?

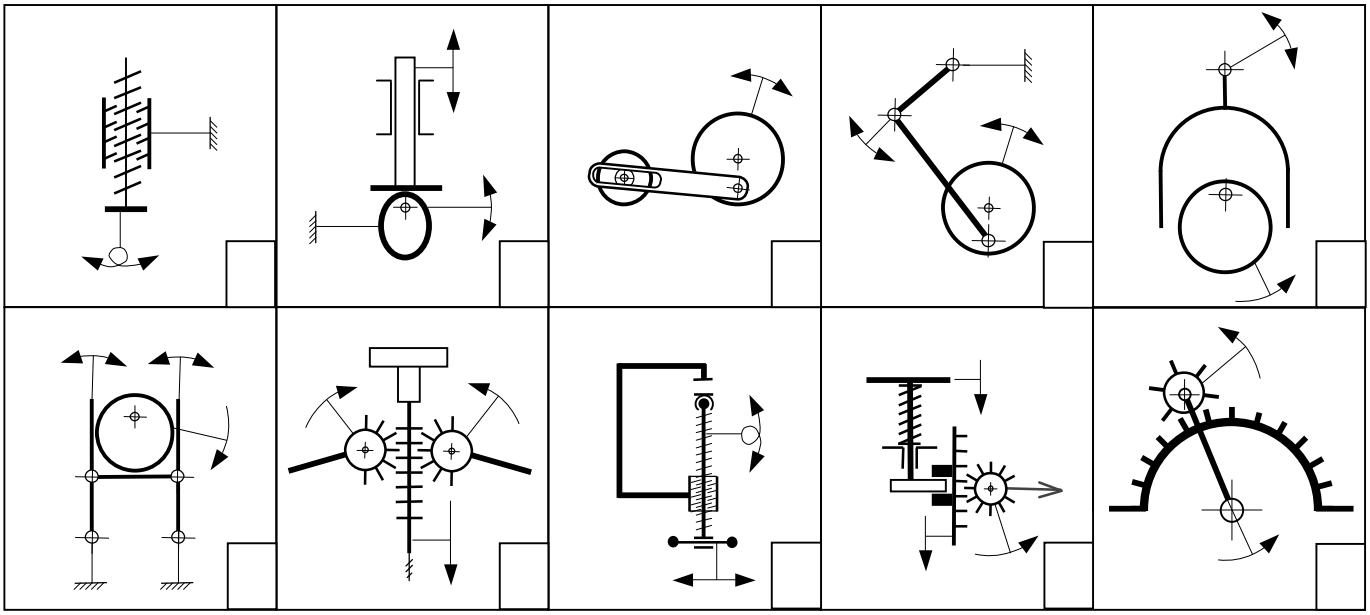


How does it work?

My animated object: diagramming

Here are different mechanical parts coming from various objects. Associate the photo to its diagram by writing the letter in the appropriate square.







How does it work?

My animated object: cam and roller system

VOCABULARY:

CAM:_____

_____

ROLLER: _____

_____

Carry out the experiment on the « EXERCISE WITH CAMS » sheet.

MY OBSERVATIONS

1. What I observe when the cam changes size (diameter).

_____

_____

2. What I observe when the cam changes positions.

_____

_____

3. You have four perpendicular lines. For these lines, trace a perpendicular line as indicated in the following table. Measure and note the length of the perpendiculars.

Measure the perpendicular line	From line A passing by point A ☐	From line B passing by point B ☐	From line C passing by point C ☐	From line D passing by point D ☐

What do you notice about the length of the perpendiculars? Explain.

_____

4. If we bring the hole (the pivot) closer to the center of the circle, what will happen with the band of cardboard?

_____

_____

5. If the cam was placed above the band of cardboard, the band would remain inclined after the passage of the cam. What could you do to bring it back to its initial position? Make a drawing and explain.