

Transferring Energy

We know that when an object moves faster, it contains more **kinetic energy**.

Let's think back to the bumper cars from the Nearpod. When you move faster, your crashes are bigger! That's because when an object in motion **collides** with another object, it can **transfer** some of its **energy** to another object.

We are going to watch a video of something called a Rube Goldberg Machine.

A **Rube Goldberg Machine** is a contraption that performs a simple task in an overcomplicated way. As you watch the video, notice how each object in motion affects objects that are not moving. How is an object affected if it is hit by something moving faster? What about if it is moving slower? Be prepared to share your observations.

What did you observe in the video of the Rube Goldberg machine? Share some examples of how one object transferred its energy to another object. Remember to put your name on your sticky!

That everything were always moving ans doing things.Caleb

when the car went for it if push Domino's giving it energy to knock down all the Domino's and to give others energy so the car gave energy to the others to knock down. Tati

When the toy car hit that 1 domino.-Mia

When he zoomed the car on the domino when he did it fast. Orlian

I saw when the car knocked over the things and how much money that cost.angelyn

The earth globe. By Elijah P

David, It was by them all connected and the car is the trigger.

Rose;The car moved the mettal balls to onother and onother well mostly the dominos moved the balls.

Ellie: It started as a little red truck bump into dominos and ended as the four guys getting blasted with paint. Chain Reaction!!!!!!

The dominoes transfer to another that made all of it move.Alexander

When the guy moved the car it was like dominos but with random items. -Kyara

Keziah: The dominos passed down energy for the hammer to hit the TV. The collision started with the car.

Astrid - One thing I saw is that at the start the little red toy truck hit the domino's the domino went so fast and made every thing go off.

Olivya: One example is like me on a fairst wheel im going up and from rotation.

i saw the dominos then the lego car and the ballons Erel.

Leila: I saw the marbles doing kinetic energy doing motion and moving and I saw the car going to the dominoes to the marbles and doing motion a lot of energy in this video so the cars to the dominoes.

brooklynn when the guy moved the car

The dominoes how it move from one thing to another thing. Maia

I observed in the video that the tv broke just to move a globe and they wasted money just to fire 4 cannons of paint at 4 men.-Nathaniel

every thing that happened had kinetic and potential energy. Kevin

I saw dominos and a car it was so epic and cool. Elijah D.

How the man was singing and the marball was making it ring ig. MAKAYLA

What I observed was that it transferred to different objects and I also observed that they did a lot of stuff and used a lot of objects to create this really big experiment.Rania

That everything was connected - Nylah

Santos. one thing i sall was collusion when to car hit the domino that was collusion.

Aaron was a lot of kinetic energy.

Imagine you are on a trip with your family and the car runs out of gas -- it won't move! You need to push it to the side of the road. What could you do to push it over faster? Based on what we know about energy, why would that work? Remember to put your name on your sticky!

Nathan
-use your families help

Santos Guzman. You can get a rope with and tie it to the car and pull it.

you have to push it to give an energy to go to the side walk and you need all the energy you can so you will need more than one person.
Tati

call some people for help the whole family and use some nature and get help from random people.angelyn

you can gather your friends and you can all push it brooklynn

Olivya: The whole family has to help cause all of them working together makes more energy.

Get help from my family. Orlian

Use a vine to pull the car and the people pushing from the back. By Elijahp

Rose; if only one person pushes then it will not work so everyone has to do it.

You have to push it so it can give energy -Kyara

You have to have energy so then you can push the car. Maia

Leila: I would move the car by getting my whole family that, s in the car to push it my brother and my dad is strong so it will help.

RUN INTO IT buuuuuuuut i am weak lolz. MAKAYLA

I and my family would push the car and wait tell the tow truck coming. Alexander

use ur body, Ellie

Astrid - What I would do is I would tell my family to go to the back of the car and pull it to the side of the road. We are using our energy to move it.

try and have another family member to help you push the car.-Mia

u could use a big branch or a freinly animal. Caleb

Aaron- get a lot potential energy.

I would help my brother and my dad push the car and. Elijah D.

you have to pull it from the front to make energy. kevin

I think everyone has to push it because it will be a bit easier but if that doesn't work maybe if you find metal in the grass or something like tree branches to help push the car. Rania

David, I need a tree and then make it into a HUGE pendulum then I need dominos then get string and put it on top of a taller tree to hang the pendulum then we push the dominos and then.

It goes to the rope that triggers the pendulum the pushes the car but we put soft cushions to make the car not smash and we drive down the hill to the 7-star hotel and Disney land.

I would take off the tires then i would grab the motor from the trunk then i would cover up the bottom of the car with wood planks then i would put the motor on the car put it in the ocean and grab tons of fuel and travel on water. Erel

You can get help from your family - nylah

Keziah: You and your family put the car on neutral push and pull. Wil your mom steers with the car on neutral.

Where does energy transfer in this drawing created by Rube Goldberg?

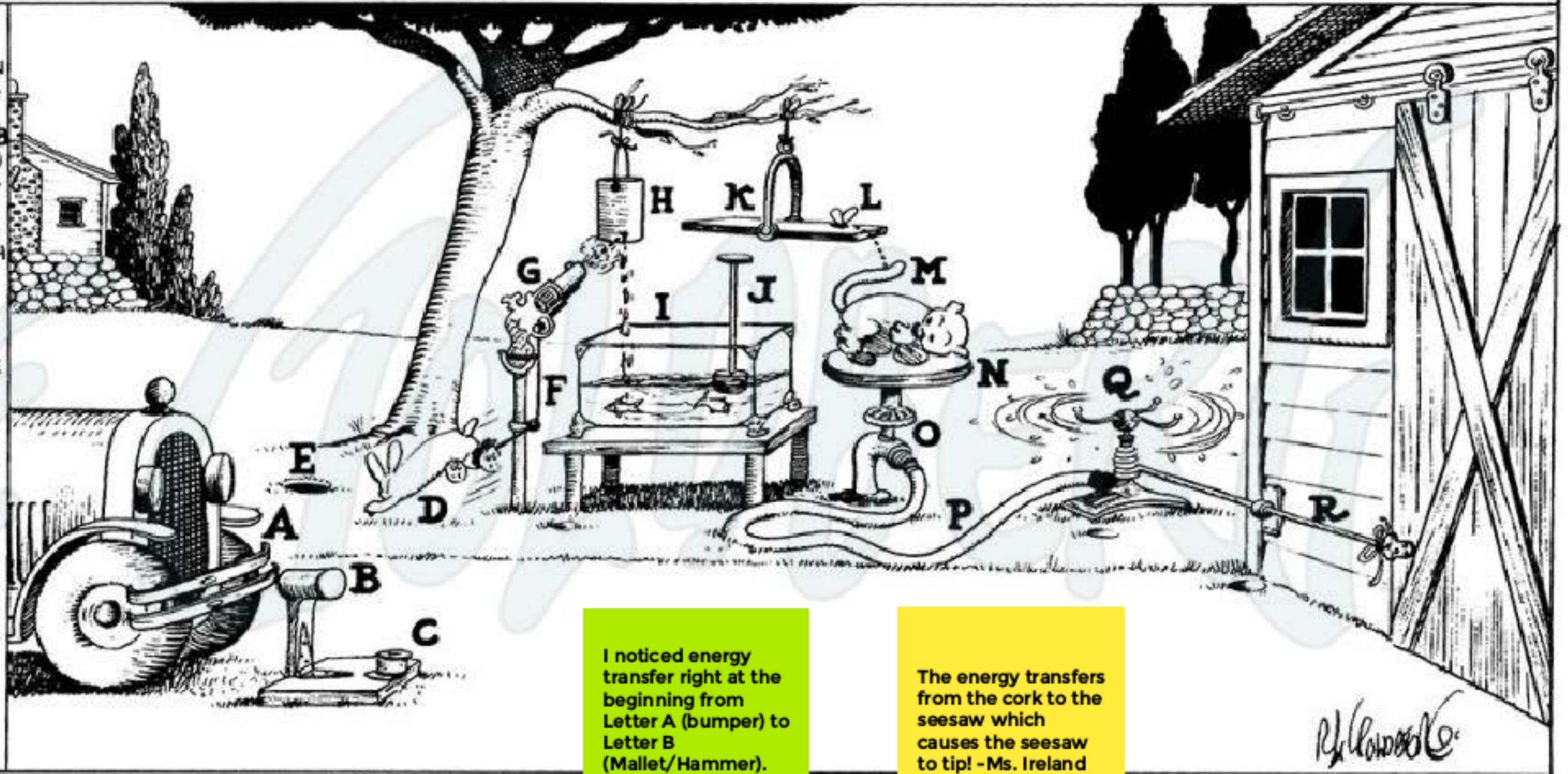
Aaron-
O, Q, R.

Opening the Garage Door by Rube Goldberg

PROFESSOR BUTTS TAKES A STRANGE GIN AND EYE FOR OPENING THE GARAGE DOOR WITHOUT GETTING OUT OF HIS DRIVE AUTO BUMPER (A) PUSHING IT DOWN AND EXPLODING CAP (C) FRIGHTENING RABBIT (D) WHO RUNS TOWARD HIS BURROW (E) PULLING STRING (F) WHICH DISCHARGES PISTOL (G). THE BULLET PENETRATES CAN (H) FROM WHICH THE WATER Drips INTO AQUARIUM (I). AS THE TIDE RISES IN THE AQUARIUM IT ELEVATES THE FLOATING CORK-UP-RIGHT (J) WHICH PUSHES UP END OF SEE-SAW (K) CAUSING FLEA (L) TO LOSE ITS BALANCE AND FALL ON GEDUNK HOUND'S TAIL (M) WHO WAKES UP AND CHASES HIS TAIL ROUND AND ROUND CAUSING PLATFORM (N) TO SPIN AND TURN ON FAUCET (O). WATER RUNS THROUGH HOSE (P) STARTING REVOLVING LAWN SPRINKLER (Q) ON WHICH ROPE (R) WINDS ITSELF OPENING GARAGE DOOR.

OF COURSE, IF YOU WISH, YOU CAN DRIVE RIGHT THROUGH THE DOOR AND THEN THERE WON'T BE ANY OBSTRUCTION LEFT TO BOTHER YOU IN THE FUTURE.

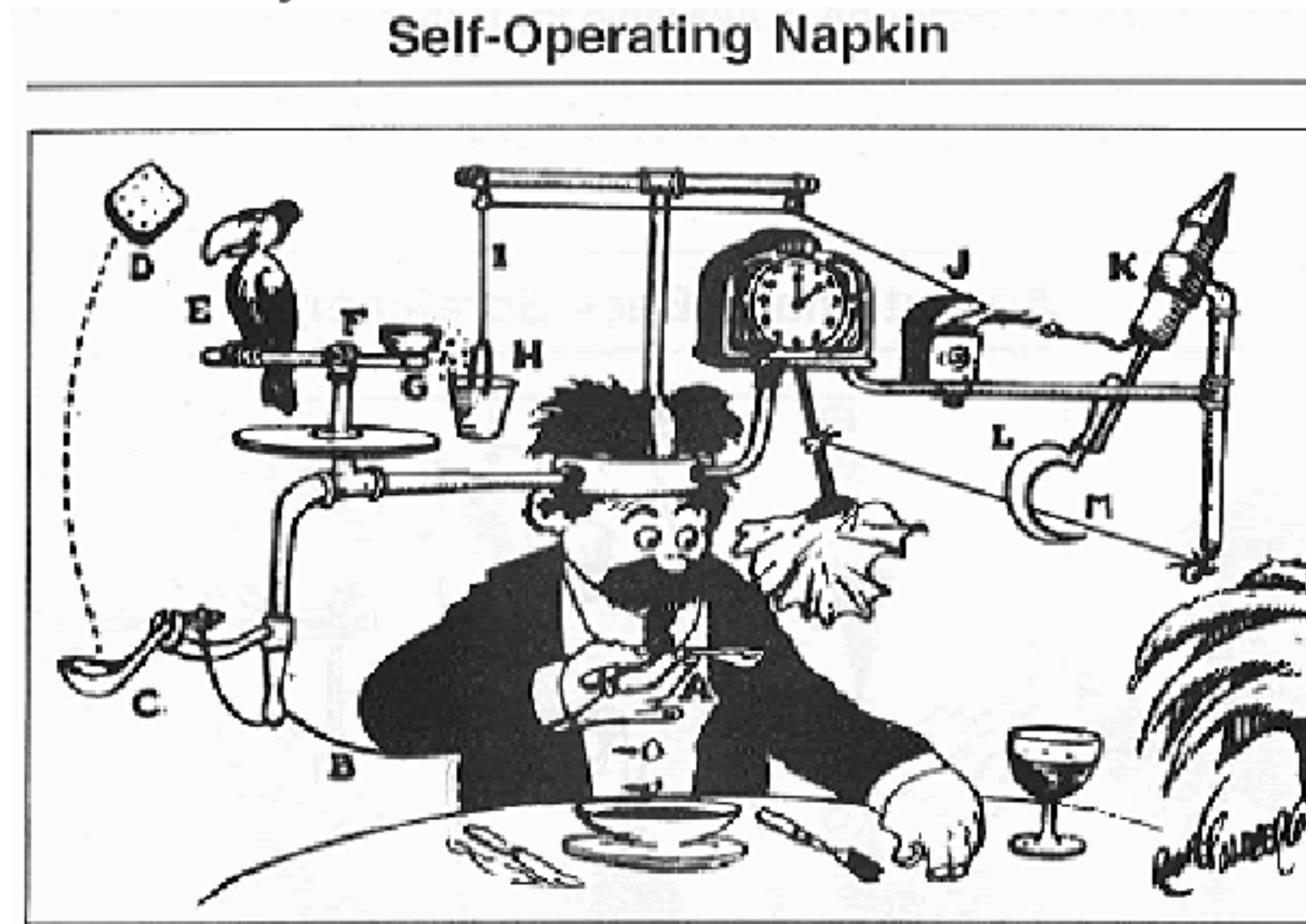
letter M where the cat makes energy my running .Caleb



I noticed energy transfer right at the beginning from Letter A (bumper) to Letter B (Mallet/Hammer). Mrs. Ruchala

The energy transfers from the cork to the seesaw which causes the seesaw to tip! -Ms. Ireland

Where do you see energy transfer in this drawing created by Rube Goldberg? Remember to write your name on your sticky!



**D and
A.
Orlian**

**c and D.
Alexander**

**E, A and
D. By
Elijah p**

I see energy in d
and c because the
fling and drop into
the parrots
mouth.Caleb

**D because the
cracker is
moving in the
air.angelyn**

**D and A
-KYARA**

**C and D
because C is
flinging D up
in the air.
Elijah D.**

**D and
A Erel**

**Ellie: A
& D**

I think C,D,and K
because it was
transferring energy
to another object
and it showed it
transferring it to
another
object.Rania

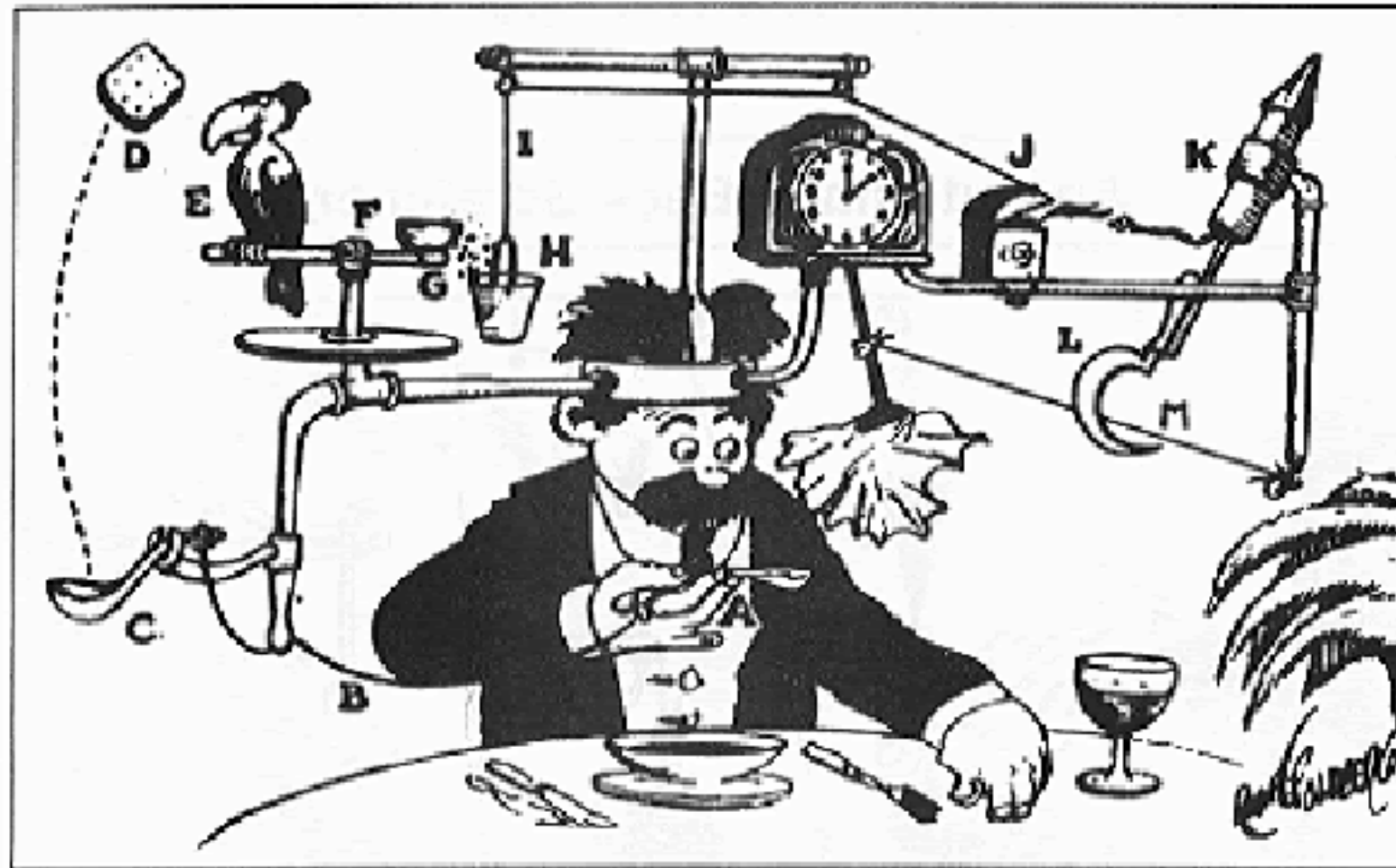
**banda
brooklynn**

**Aaron-
C and
D**

**Leila: C and D
because I can
see the kinetic
motion the
enrgy.**

Where do you see energy transfer in this drawing created by Rube Goldberg? Remember to write your name on your sticky!

Self-Operating Napkin



**J to
K.-Mia**

Rose;the
spoon lanches
the craker.

Letter C making
something hit Letter
D Because its
lanching a cracker -
Nylah

David, The string for
the spoon is moving
the make a
slingshot out of a
spoon. Wich is
transfer energy. On
A B & C.

Keziah. Letter
C flings bread
to letter D.

**C and D.
MAkayla**

**I think
letters i
t k Tati**

**C to R
Maia**

**I to
j.kevin**

**Aaron-
C and
D**

letter J
making letter
K light and
pull letter
M.-Nathan

Astrid - I saw some
energy transfer on A
B C because on A
he pick up a spoon
to B to move the
string to C
launching the toast
on the spoon.

Olivya: N when the
cat is making it turn
on P the pressure of
the water opening
the door.