

Name \_\_\_\_\_

Date \_\_\_\_\_



# Force and Motion

"A Push or a Pull"

You guys know anything about force?

Nothing in the world moves without force,  
A rock won't just fly through the air, of course.  
It takes a \_\_\_\_\_ or a \_\_\_\_\_ to move it,  
That's \_\_\_\_\_, and I bet you knew it.  
Like, you see this soccer ball, you think it will move?  
Not until you apply some force my dude.  
So run up to it, and give it a big kick,  
It went flying far, that's \_\_\_\_\_, no trick.  
And if you gave it less force, and kicked it softly,  
It wouldn't have gone as far, you got me?  
And if the ball weighed 50 pounds,  
It would have been really hard to kick around.  
It takes less force to move things that are light,  
That's why it's so easy to pick up a mic.  
And it's way harder to pick up a brick,  
That's it, now let me drop the hook real quick.

You need force to make an object move,  
It won't move without force, that's true.  
A push or a pull will move it around,  
But \_\_\_\_\_ will slow it down.

So you know it takes force to make something move,  
It also takes force to make it stop, that's true.

So when you kick a ball to your friend Lou,

And he kicks it back, he applied force too.

But then, why does the ball stop on its own?

When you kick it, why doesn't it keep going?

It slows down because of friction,

Friction is a force of \_\_\_\_\_.

When the ball rolls and touches the grass,

Then those two \_\_\_\_\_.

And friction from the grass on the ground

Is what slows the ball down.

But what if it were ice, instead of grass?

Would the ball roll less or roll more, you ask?

Ice is smoother, so there's less friction, kid,

That's less force on the ball, are you getting it?

The ball is going to go farther,

Like surfers when they surf on water.

Water and ice are slippery and smooth,

They have less friction, so it's easy to move.

You need force to make an object move,

It won't move without force, that's true.

A push or a pull will move it around,

But friction will slow it down.