Forces and motion are one of the most important things in our lives, forces and motion make things move and stay still. Motion is just movement needing a force to act upon it. Pushing and pulling are examples of forces that can speed things up or slow things down. There are two types of forces, at a distance force and contact forces. Friction and mass is very important as well.

Firstly, a force is just a fancy word for push or pull, example: a man pushing a box, pushing is the force. All a force ever does is change the motion or speed of the object it is applied to.

Secondly, there are two main types of forces, at a distance and contact forces. A contact force is when two interacting
objects, for example: a boy pulling a toy train, the boy is interacting with an object while applying a force to it, another example of contact forces is friction. At a distant force is when two objects are not touching but one is moving the other. Look at earth, it is applying a force to us, but is it touching us? No, but it is still applying a force to us, that is a distance force. Here another example, magnets and a paper clip, the moon and the earth’s ocean.

There are many types of contact forces like, push and pull, normal force and friction. Normal force is when nothing is happening, for example: there is a book on a table. Gravity is pulling the book down but the table is resisting. Another force is spring force, it means when force is pulling or pushing on a spring. The second last force is applied force, it
is when the force is push or pull are being applied to an object.

The last contact force is tension force. Tension force is a force on wires and the force is equal on both sides.

Next is friction, friction is when two object rub together. Friction is a contact force and can either be destructive or helpful. It is destructive by, when bumps on the surface break and reform. It is helpful by, it helps us stand up and not slide forever. There are four types of friction,

- **Static friction**, is a friction on an unmoving object, it describes a freed or trapped object and once a force overcomes this friction it is no longer applied. Sliding friction, is between two sliding objects and is less then static friction. The next friction is fluid friction. Fluid friction is a friction to do with liquid, like water through a hose.
The last friction is rolling friction. This friction is like sliding friction but is between a rolling object and a surface, like the wheels on a car. The distance of the object rest on the materials the wheels are made of. Here question, what would travel further, rubber or steel? That correct, steel, steel has less friction then rubber does so it would travel further. Did you know air has a friction two? It is called air resistance. It either speed things up or slow thing down.

After that is inertia, although it is not a force it is still very important to us. It is the property of all things due to mass and the more mass an object has the more inertia it has. Inertia can either make things easier or harder to move, also depending in the mass. Moving objects tend to stay moving and stationery tend to stay stationery.
Third last is at a distance force, gravity and magnetism. These are both invisible to the human eye. Gravity is very important to us by, it keeps us and stuff around us on the ground, it also keep the earth orbiting around the sun and the moon around the earth. Earth's gravity is caused by earth's core, scientist say the core is made out of iron and nickel, so when it spins it creates a magnetic field thus creating gravity. Here is a question for you, which would fall faster a big ball or small one? Neither! They would fall ruffle at the same speed. After gravity is magnetism. Magnetism is just things to do with magnets. Magnets are like poles, north and south. If north and south is near each other they will attract but if it is south and south or north and north then they will repel. Magnets will attract anything made out of steel, nickel, copper, Colbert and iron.
Another important thing to us, is motion. Motion is to do with the changing of location and position with an object. The two main things about motion is velocity and acceleration. Acceleration is how quickly things speed up. Velocity is the speed of an object in one direction. If the direction of an object changes so does the acceleration or velocity changes of the object.

Lastly, are the two main people who discovered gravity and force. The man responsible for the discover of gravity is Sir. Isaac Newton. They say he saw an apple fall from a tree and wonder what was the mysterious force. Which lead to the discover of gravity. But he was hiding a secret... he didn't know how it worked! Newton knew a lot of things about motion. He made three laws about motion, the first one is, if something is moving it will keep moving if something is still it will stay still (INERTA!). The second law is, when a force is
acting on an object it will change it speed direction or both. The third law is, if a force is acting upon an object, there is an opposite or equal reaction.

So with all this evidence stated, don’t you think forces are very important to us, because we can’t live without them.