

# SCENIC SCIENCE VOL 1/LESSON 1A

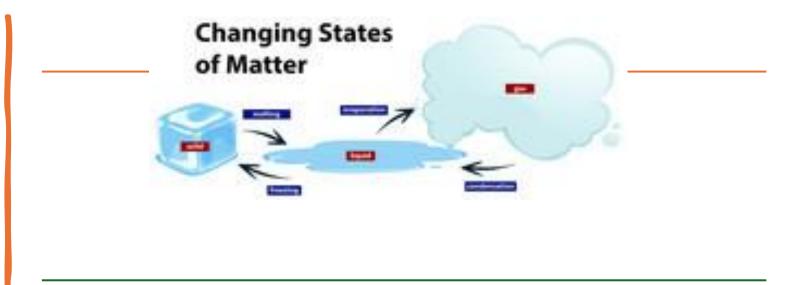
#### From our Earliest Days we have explored physics...

- Pulling
- Pushing
- Dropping
- Moving

Exploring matter, motion, and everything we can touch



PHYSICS... the study of matter, energy, and motion...



MATTER – something that has mass and takes up or occupies space.

MOTION – the action of moving



Physics is also about the energy to do WORK

And the science behind the inventions we use to make our work easier and more productive

### GOD'S WORKMANSHIP...

WORKMANSHIP... the degree of skill with which something is made, or a job is done.

- 1. How does creation show God's workmanship?
- 2. What "good works" are we designed to do?



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### WORKMANSHIP

**GENESIS 1:27** God created man in his image, in the image of God he created them...

**EPHESIANS 2:10** For we are his workmanship, created in Christ Jesus for good works, which God prepared beforehand, that we should walk in them.

GOD CREATES... GOD KNOWS... GOD WORKS...

6 DAYS AND RESTED ON THE 7<sup>TH</sup>



# From the Beginning of Man's Time...

#### **TIMELINE: ~4500-4000 BC** (~6-6500 years ago)

Man was designed for work

God placed Adam & Eve in the Garden of Eden

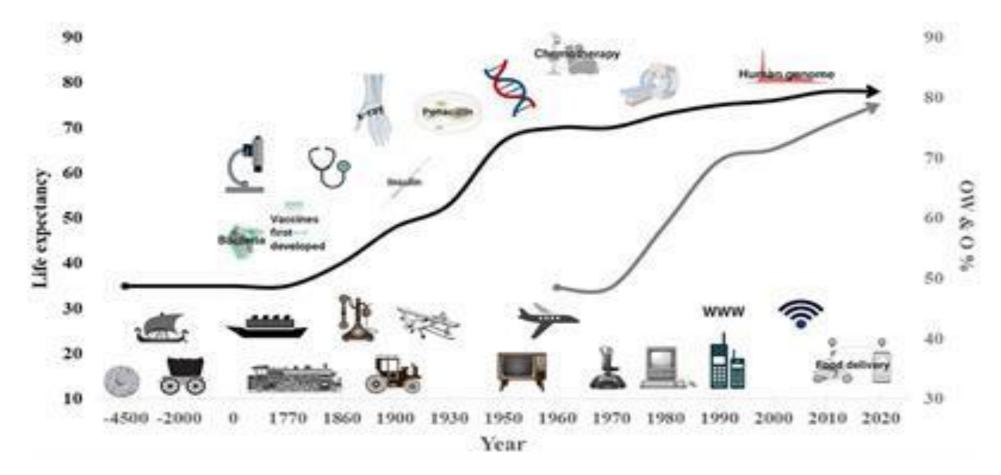
Sin resulted in a Lost Paradise

Tools were needed to: Build Shelter Grow Food



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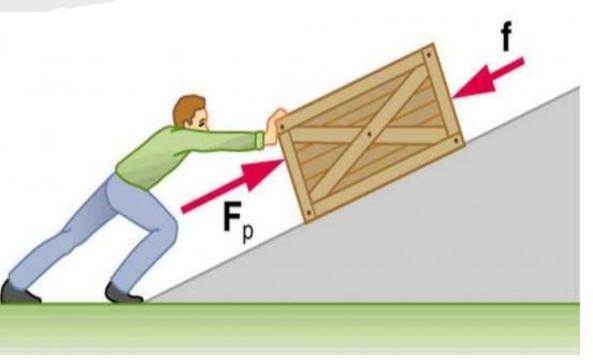
#### TOOLS AND INVENTIONS = EASIER WORK



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# WORK REQUIRES MOTION

- MATTER something that has mass and takes up or occupies space.
- MASS inertia or resistance to motion, an amount of matter with weight.
- ACCELERATION a change in motion, positive, negative, or a change in direction.



# LAWS OF MOTION

- Newton's 1<sup>st</sup> Law the Law of Inertia which states an object in motion stays in motion, an object at rest remains at rest unless a force acts upon it.
- Newton's 2<sup>nd</sup> Law the definition a force which is: Force = mass x acceleration (F = ma)
- Newton's 3<sup>rd</sup> Law for every action there exists is an equal and opposite reaction, also known as the action/reaction law.  $\rightarrow \rightarrow \rightarrow$

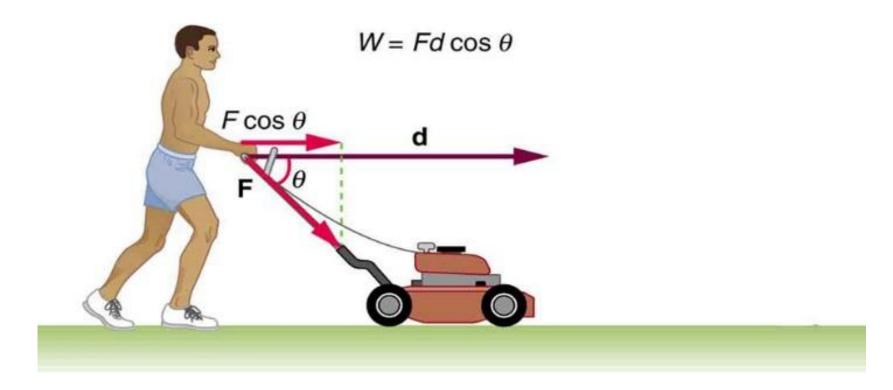


### An Orange at Rest. It has Matter and Mass



# MOVING AN ORANGE AT REST REQUIRES A FORCE – NEWTON'S 2<sup>ND</sup> LAW

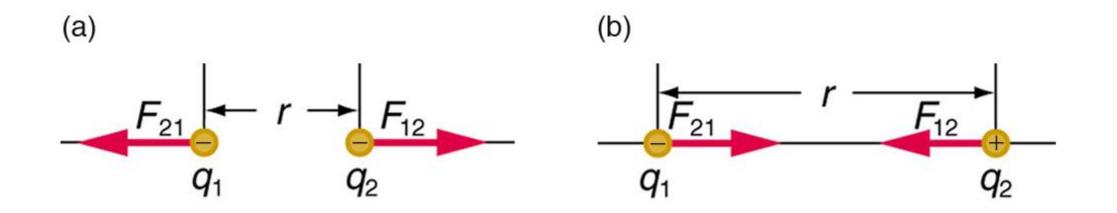
#### NEWTON'S $2^{ND}$ LAW - F = ma



#### **A PUSH OR A PULL IS CALLED A FORCE**

## Newton's 3<sup>rd</sup> Law

For every action there exists is an equal and opposite reaction, also known as the **action/reaction law**.  $\rightarrow \rightarrow \rightarrow \leftarrow \leftarrow \leftarrow$ 

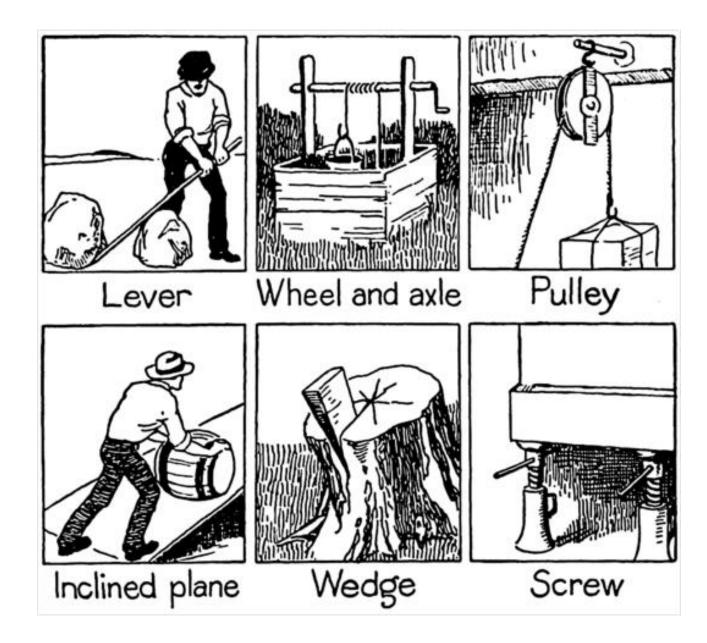


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WITH THESE LAWS, MAN LEARNED TO CREATE TOOLS TO DO GREATER WORKS

#### <u>A tool is:</u>

a mechanical device that changes the direction or magnitude of a force



### **REMEMBER THESE THINGS**



#### WORK (hands): COL 3:23 Whatever you do, work heartily as unto the Lord, not unto man.

There's nothing more liberating than working unto the Lord.

Genuine joy fills a believer whose work is dedicated to God, not man.