

SCALES OF JUSTICE

INTRODUCTION:

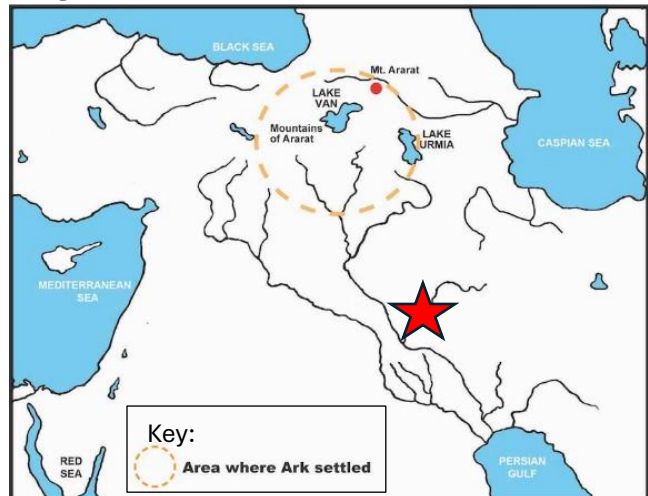
After the flood, God said there would never be another worldwide flood. He put a rainbow in the sky as a symbol of this promise. Noah, and his sons Shem, Ham and Japeth, and their wives left the ark and spread out into an area known as Sumer (star on the map). They likely followed the rivers from the Ararat Mountains down toward the Persian Gulf.



GENESIS 9:11,13 ¹¹ I establish my covenant with you: Never again will all life be destroyed by the waters of a flood; never again will there be a flood to destroy the earth. ¹³I have set my rainbow in the clouds, and it will be the sign of the covenant between me and the earth.

Ham's grandson, Nimrod, wanted his followers to build a Tower to "reach heaven and make a name for themselves." But, it's impossible to reach heaven with any tower or anything people make with their own hands.

Read **GENESIS 10:8-12** to learn about Nimrod.

DEFINE:

WEIGHT: the force exerted on a body by gravity. **$W = ma$**

GRAVITY: the universal force of attraction acting between all bodies of matter. Gravity pulls downward toward the center of the Earth.

DENSITY: the mass per volume of a substance; a characteristic of all elements and substances, like water which is 1 gram per 1 mL or cm^3 .

SPECIFIC GRAVITY: the density of an object compared to water. Lead to water is more than 11 times denser; Gold is 19 times denser; and Aluminum is less than 3 times denser.

WHEEL: a circular object revolving around an axle; a pulley is a version of a wheel.

THEME: REMEMBER THE SCALES OF JUSTICE

Micah 6:11: *Is it possible for me to let wrong scales and the bag of false weights go without punishment?*

A balance scale has two trays – one tray contains a known STANDARD weight and the other tray a quantity of substance it needs to balance. God’s Word is our standard to weigh our choices or to make right decisions.



Choosing to do things our own way is like putting a finger on the scale to cheat. Our wants and desires may keep us from choosing to do the right thing, like Nimrod. The reason Lady Justice (above) is blindfolded is to symbolize the need to choose based on truth and fairness. The same is true for God’s laws – they are fair and based on His truth.

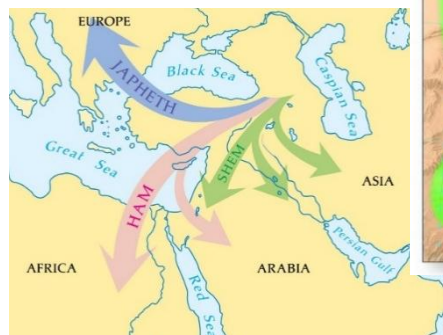
Proverbs 16:11 *A just weight and balance are the Lord's; all the weights of the bag are his work.*

Noah chose based on God’s will. Nimrod chose based on his own will. God weighs our choices and deeds. His law is our judge and His scales are always correct.

TIMELINE/Introduction (History): After the Flood

2400-1500 BC Bricks and Ovens, Metallurgy, Wheels, the Tower of Babel/Pyramids and Ziggurats. Establishing standards for measuring weight.

As flood waters receded, Noah’s family (the only living humans) moved down from the mountains of Ararat (Turkey). Within a few years, a cooling period and ice age began covering higher latitude and altitude regions with snow and glaciers. The descendants of Ham and Shem soon occupied the warmer, unglaciated region known as Sumer, which is a reference to Shem. In western Sumer, however, the city of Uruk was built by Nimrod, Ham’s grandson.



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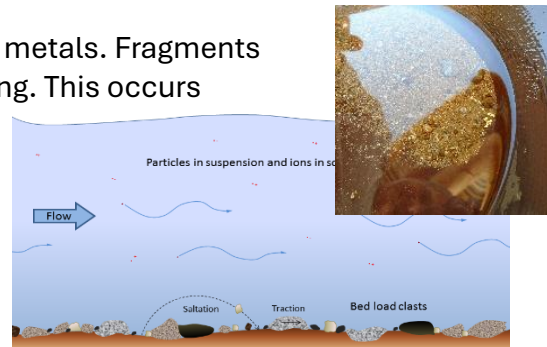
Communities and cities were soon founded by Noah's children and grandchildren. Ruins of cities/temples built more than 4000 years ago remain even today. The people made brick, some fired in ovens, and mortar to build walls, homes, temples, ziggurats, and cities.



After the flood, it's likely that quartz veins with precious metals were common at the surface. The intense heat energy from the fountains of the deep and the fractures in the earth's crust released mantle elements into these fractured spaces or veins.



Rock ore was mined, then crushed to separate the metals. Fragments were then subjected to high energy water processing. This occurs naturally when heavy metals get stuck in stream beds. Panning for gold or other metals is a density-driven process. Early civilizations used these methods to find metals in streams and rivers.



EQUIPPED/Science Principle:

Weight is a force. Remember, **$F = ma$** or **Newton's 2nd Law**. Some forces are primarily due to gravity, some are against gravity (such as lifting), and some are primarily horizontal like two cars ramming into each other. With horizontal acceleration, the acceleration is not due to gravity but due to the "gas or brake pedal."

The downward force of mass, what we call **weight**, is due to gravity. Weight $\rightarrow W = mg$ - "g" simply indicates the kind of acceleration.

Density isn't weight, it's mass divided by volume.

Differences in density are caused by how close together atoms are packed, how many protons and neutrons are in the atom's nucleus, and how hot or cold an element or substance is. Weather and air flow patterns, metallurgical processing, ocean circulation, mineral/rock and mantle processes all depend on density.



Standard weights (weights with known values) can be used to balance or counterbalance scales. Having uniform and accurate weight standards was a major challenge for early civilizations and trade. Standards can be used to calibrate/alter a scale's zero setting, if needed.

Water is used to compare density, weight, and volume. **One milliliter (also called a cubic centimeter) equals 1 gram of water.** One cc or ml of most other elements (such as these below) or substances will not equal 1 gram, but water was the standard used to describe a gram.



Each element has a characteristic density and can be identified accordingly. Compare 1 cc of gold at 19.3 grams, to 1

cc of aluminum at 2.7 grams, to 1 cc of sodium at .97 grams.

The density difference between water and other substances helps separate sand and mud into layers. Mud particles stay in suspension the longer resulting in an upper layer of mud, like the surface in this image.



GEAR-UP/Practical Illustration:

Weight and Density

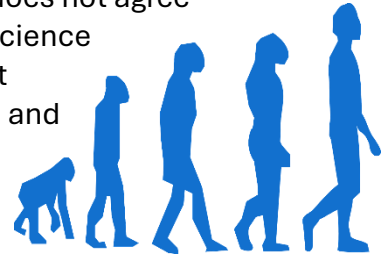
There are multiple scale types including digital, balance, triple beam, single or double lever arm scales, and Vernier scales. Each have different formats for reading weight quantities.

THE TRIPLE BEAM



1. Start with all weights slide to the left.
2. With nothing on the scale, the beam should be at the **balanced** position.
3. Place object to be weighed on the scale.
4. Move the large weight first (middle beam).
5. Move the medium weight second (back beam).
6. Finally, use the front weight to achieve the balance position. For small objects, the front weight may be all that is needed.
7. Make sure all weights are all in proper positions and the beam is balanced.
8. Record the weight.

One idea from science: “complexity evolved from simplicity” does not agree with the Bible. This theory is based on human ideas of “what science thinks and not what God thinks.” Thinking we know what’s best can lead to foolish theories like, “humans were once monkeys and dinosaurs turned into birds.” These theories were imagined because science forgets: “God created.”



While science is an important quest, one must keep in mind that not all science arguments or theories are true.

2 COR 10:5 *We demolish arguments and every pretense that sets itself up against the knowledge of God, and we take captive every thought to make it obedient to Christ.*

REFLECTION/Devotion:

Whenever “man” ignores God, His laws, or His desires for mankind, foolishness takes over. The Tower of Babel is a prime example. Imagine if all man’s creative talents, work, knowledge, and understanding were applied to serving God and others. In Genesis 11:6, God declared “...nothing they plan to do will be impossible for them.”

Choosing to “make a name for themselves” or building a tower to heaven when God has clearly declared only sinlessness can bridge the gap between earth and heaven, is simply foolishness. In contrast, Noah’s obedience to do what God asked and to build the ark saved his family (and us), and all the animals.

Humans tend to repeat the same mistakes. God’s solution, scattering and confusing languages, kept mankind from wickedness all over again. God knows the future and how to control it to accomplish His will. We become foolish when we try to control future events by not listening to God.

REMEMBER THESE THINGS/Devotion:

God intended for man to use his mind creatively, but He requires remembering. Remember God is the Creator of All. Remember the Fall of Man and the consequence of man’s choice to disobey. Remember the Flood, the result of man’s refusal to repent. Remember the Tower of Babel and the consequence of trusting in your own “power, strength, knowledge” over believing God. Clearly, mankind needs reminders to avoid repeated forgetfulness, foolishness, and failing to honor God and His gifts.

Romans 1:10 *None are righteous, no not one.*



A rainbow reminds us of the flood, God’s judgment and promise. An entirely different world awaited Noah’s family, but because they listened to God’s instruction, they were equipped to survive. We can be assured that God will never judge the earth with flood waters again; however, we can also be assured that judgment will come to all.

Matthew 7:2 *For in the same way you judge others, you will be judged, and with the measure you use, it will be measured to you.*

Lady Justice, blindfolded and holding scales, depicts man’s God-given inner desire for justice (no matter what their status, skin color, or religion). Scales are symbols for justice, fairness, weight, and measures. The framework needs to be true and accurate. By weighing substances, chemical properties can be determined and identified. It’s essential to know density and mass to calculate potential value, “For I, the LORD, love justice; I hate robbery and wrongdoing. In my faithfulness I will reward my people and make an everlasting covenant with them.” God is just; therefore, man who is created in God’s image has an innate desire for justice – both punishment and reward.

