

WHAT IS SCIENCE?

- Webster defines science as knowledge of the physical world, as determined from systematic observation and experimentation.
- **Operational Science (empirical/observational)** is based on what we can observe and test for accuracy with our five senses (and, of course, our minds).
 - What we think is true (an hypothesis) must be tested.
 - If careful research supports that hypothesis, it can become a theory.
 - To be considered scientific, theories must be validated (confirmed).
 - If proven untrue, they are merely false theories!
 - This kind of experimentation allows us to build machines, understand how cells work, and develop medicines.
- **Historical Science:** (e.g. "origins" science) is based on certain assumptions (i.e., what we think happened).

BUT WHY ARE WE EVEN HERE?

Why is there "something," rather than "nothing?"

- David Hume asked, "Why can't the material universe be its own warrant for existence?"
- Bertrand Russell said, "The universe is just there – that's all!"

Throughout time, people have generally agreed that:

- The universe **exists**
- Everything that exists has a **beginning**
- Every beginning has a **cause**
- Every cause has a **reason, or a purpose**
- Just because we can't explain certain causes, reasons, or purposes doesn't mean they don't exist.

RULES OF SCIENCE

1. Facts, not assumptions:

- Facts are based on observable, repeatable, falsifiable phenomena.
- But, no one was around to witness the origin of the universe and life.

2. Laws of Thermodynamics:

- First Law: Conservation of quantity (matter and energy are neither created nor destroyed).
- Second Law: Deterioration of quality (increasing entropy). Left to themselves, matter and energy deteriorate.

3. Law of Cause and Effect:

- No effect can exceed (be greater than) its cause.
- Time is a tomb-builder; not a vehicle for upward mobility.

4. Law of Biogenesis:

- Life comes only from life.

5. Mutation vs. trans-mutation:

- Basic kinds remain basic kinds.
- They may mutate, but they never trans-mutate.

RULES OF SCIENCE

6. Design is intentional, not accidental:

- Chance alone has no creative power.
- Meaningless processes don't produce meaningful results.

7. Information requires intelligence:

- Information doesn't arrive on its own.
- Any code system requires an inventor.
- Without increasing information, natural selection will not result in evolutionary progression.

8. Biological life & replication require complex machinery:

- Complex machinery doesn't arrive through random chance.
- Machines need to be fully-formed or they won't function.
- DNA requires complex proteins, and proteins require DNA.

Two different views regarding chronology, sequence, mechanisms, and end-points

BIG BANG (billions of yrs) GENESIS 1 (6 days)

- | | |
|--------------------------|---------------------------|
| 1. Light, light elements | Earth and water (Day 1) |
| 2. Stars | Light |
| 3. Heavy elements, water | Firmament, oceans (Day 2) |
| 4. Sun, moon, earth | Dry land (Day 3) |
| 5. Dry land | Vegetation |
| 6. Oceans | Sun, moon, stars (Day 4) |
| 7. Marine life | Marine life (Day 5) |
| 8. Vegetation | Birds |
| 9. Animals: reptiles | Animals (Day 6) |
| 10. Birds | Man |
| 11. Animals: mammals | Woman |
| 12. Fruit trees, grasses | |
| 13. Sub-humans and man | |

LESSONS FROM HUBBLE

As University of Chicago cosmologist Rocky Kolb says, "Naming is not explaining, and nobody yet knows what dark energy actually is."

When physicists calculate the energy in that newly discovered force, they get absurdly large results, ranging from infinite (that can't be right) to zillions of times more than can be explained by known energy – a disparity that astronomers are calling "the worst failure of the order-of-magnitude estimate in the history of science."

The problem with the Big Bang is the evolutionary explanation of it, and all its missing links:

Time
Matter
Anti-matter
Dark energy
Neutrinos?
Star formation
Galaxy formation
Chronology
Sequence
"Days"

However, we should have no problem with expansion, for we read in Psalm 104:2, "You stretch out the heavens like a tent."