Bob Luddy, from Miletus Conference 2024

Natural Order refers to the laws and principles by which God created the universe.

The universe can grow, reproduce, and repair itself.

Thomas Aquinas stated,

“The eternal law is God's wisdom, inasmuch as it is the directive norm of all movement and action.”

Human wisdom in all cases is inferior to God, which is why it is imperative for all humans to understand the natural order and make decisions based on God’s wisdom.

All of God’s natural creations follow a metaphysical hierarchy.

The immortality and immutability of the natural law preexists in the mind of God, and therefore, the natural law is immutable,

Violations of the Natural Order and laws create chaos.

Humans cannot achieve the same perfection as God. Everything produced by humans is ephemeral, but God’s nature is everlasting.

Natural law is on the hearts of all humans and must be our conscience.

Modern education is defined by formulas, spreadsheets, and knowledge but does not adequately incorporate or stress upon thinking.

Classical Education develops skills, habits, and intellectual wonder, which characterized many great scientists of history—providing thinking and wisdom.

This was the principle behind the subjects of the quadrivium--astronomy, arithmetic, geometry, art and music.

Astronomy was the study of mathematical principles in space, which as Socrates says in the *Republic,* "compels the soul to look upwards and leads from this world to another."

In other words, the goal of science in the classical world is not the absolute control of the natural world but rather,
Truth.

The study of natural science ought to lead us to the conviction that truth is what is real, that truth exists, and that truth is as understandable in the human world as it is in the natural world.

Science in Latin (*scientia*) means "knowledge," and in modern parlance "science" refers to our knowledge of the natural world and mysterious cause-and-effect relationships that govern the actions going on inside it.

From planets to cells, science is about opening the natural world for students to understand and digest.

Such a disposition manifests itself in contemplation, looking at a sunset, an ocean, a badger in the same way we might gaze upon a beautiful painting.

We must communicate the sense of wonder led great scientists—Isaac Newton, Marie Curie, Albert Einstein—to wrestle with problems in the lab, in a mathematical model, including discussion with our peers.

Science - challenge

This sense of wonder ought to move us to ask questions that challenge scientific orthodoxy, in the same manner, that Galileo challenged the reigning scientific consensus of his day and in that way, radically advanced our scientific understanding.

Teachers must light a fire for their students but also stoke the flame.

The Thales Academy Rolesville workroom has a quote "the mind does not require filling like a bottle, but rather, like wood, it only requires kindling to create in it an impulse to think independently and an ardent desire for the truth."

These new levels of scientific understanding should be pursued within the guardrails of classical education.

Pride,

Like few other subjects, science has the capacity to encourage hubris, pride, and arrogance that comes about when individuals think laws, rules, and norms do not apply to them.

Such pride can foster the immense power that scientific knowledge provides us, or we become lazy because we assume we know something when really, we just know the formula.

Our knowledge of that *cause-and-effect* relationship governing the world around us has produced technological advancements Aristotle and Pascal could have never dreamed of.

Household appliances, plumbing, electricity, HVAC, and smartphones have allowed men to control their environment.

Such power, naturally, requires us all to be good stewards of these incredible resources.

Hubris

In science and math class, students may memorize a formula that may have taken someone their whole lives to work out.

As a result, we should not feel smarter than the generations that have gone before us. This is a pervasive problem of modernity.

We should be taught how difficult a theorem, or a proof was to formulate, and the wisdom of individuals responsible for the discovery.

If we are just handled a formula, we may never appreciate the difficult struggle some famous scientist or mathematician had in formulating it in the first place.

Thales students recreate these experiments and understand these formulas.

It is the best way for students to appreciate the individuals that tinkered for years with an invention or an algorithm until it worked or demonstrated something profoundly true and beautiful about the world.

State vs Science

The Greater Threat to Scientific Progress: THE STATE, which controls grants and the tries to control the message.

The conflict between the church and science is also well known and well documented. The image of Galileo, standing before the inquisition, a gray haired, wizened old man, being forced under threat of torture, to recant his beliefs concerning the workings of the universe.

Chernobyl,

Less-well documented is the conflict between the state and science.
The hapless hero in this struggle is Valery Legasov who was one of a handful of scientists who had warned about safety issues at nuclear power plants like Chernobyl and the lack of training and expertise amongst the individuals operating such massive power plants, warnings that the politicians suppressed.

The Chernobyl disaster is a dramatic example of the way the government hijacks and diverts the scientific process.

STEM,

Whether it's a dictatorship or a liberal democracy, the state prioritizes science and engineering because of the practical utility these subjects bring to the table. And then they will bring the most talented engineers into their service to make whatever weapons or technologies desired.

Today, the new emphasis on STEM education–Science, Technology, Engineering, and Mathematics–isn't so much about making weapons but about keeping up with China.

The fear is that as the current generation of students loses interest in science and engineering, the United States will fall further and further behind the current generation of Chinese students whose number one career goal is to become an astronaut, as opposed to the top occupational goal of American students.

Instead, Thales Academy is working hard to encourage in students the kinds of habits and attitudes that characterized great scientists—Galileo, Newton, Pascal, and a host of others.

Thales is developing lesson plans that look at profound concepts—the dew point, inertia, gravity—and explain to the students in such a way they can discover the significance of these ideas for themselves.

Ideas are rooted in the profound *wonder* of the world God has made and how this Creator God has made the world work.

All violations of the natural order will ultimately result in utter destruction and chaos, which is why metaphysics must control science.

Due to this, Thales Academy helps students understand the beauty and order of the natural world, as first principles.

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