



**Incorporating
Sustainability
Education into
YOUR
Curriculum**

Cheldelin Middle School 7th Grade Physical Science Topics

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| Measurements, Units |
| Intro to Matter: Mass, Weight, Volume, Density, Buoyancy |
| Phases of Matter |
| Characteristic Properties: Sublimation, Solubility |
| Mixtures and Solutions |
| Atoms and Elements |
| Molecules & bonding |
| pH |
| Physical vs. Chemical Changes |
| Conservation of Mass/Matter: Balancing Equations |
| Electricity and Magnetism |
| Radioactivity, Fusion and Fission (isotopes) |
| Energy Types, Law of Conservation of Energy, Energy Transfers |
| Speed and Velocity |
| Newton's Laws |
| Simple and Compound Machines |
| Rockets |

The Backwards Design Process

(based on Understanding by Design by Jay McTighe and Grant Wiggins)

- 1** Identify standards. What do you want the students to know/be able to do?
- 2** List topics under each standard.
- 3** Write an essential question to guide instruction.
- 4** Create an assessment/s for topics/guiding question.
- 5** Determine activities/lessons sequence.

Shifted Curriculum
7th Grade Physical Science
(Sustainability Focus)

CLIMATE CHANGE – What will happen to the level of the ocean if the polar ice caps melt?

Observations, Measurements, Units

Intro to Matter, Mass, Weight, Volume, Density, Buoyancy

Phases of Matter

Characteristic Properties: Sublimation, Solubility

Heat

NATURAL RESOURCES – How can we provide enough energy to meet our needs?

Electricity and Magnetism

Wind, solar energy

Energy, Resources & OIL

Radioactivity, Fusion and Fission (isotopes)

Energy Types, Law of Conservation of Energy, Energy Transfers

WATER RESOURCES – Is our water safe to drink?

Atoms and Elements

Molecules – covalent bonds

pH

Mixtures and Solutions

Physical vs. Chemical Changes

Conservation of Mass/Matter: Balancing Equations

"Our lives begin to end the day we become silent about things that matter."
— *Dr. Martin Luther King, Jr.*



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