

# SOLVING THE HS COURSE SEQUENCE PUZZLE

## Integrating Earth Science



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## Integrating Earth Science

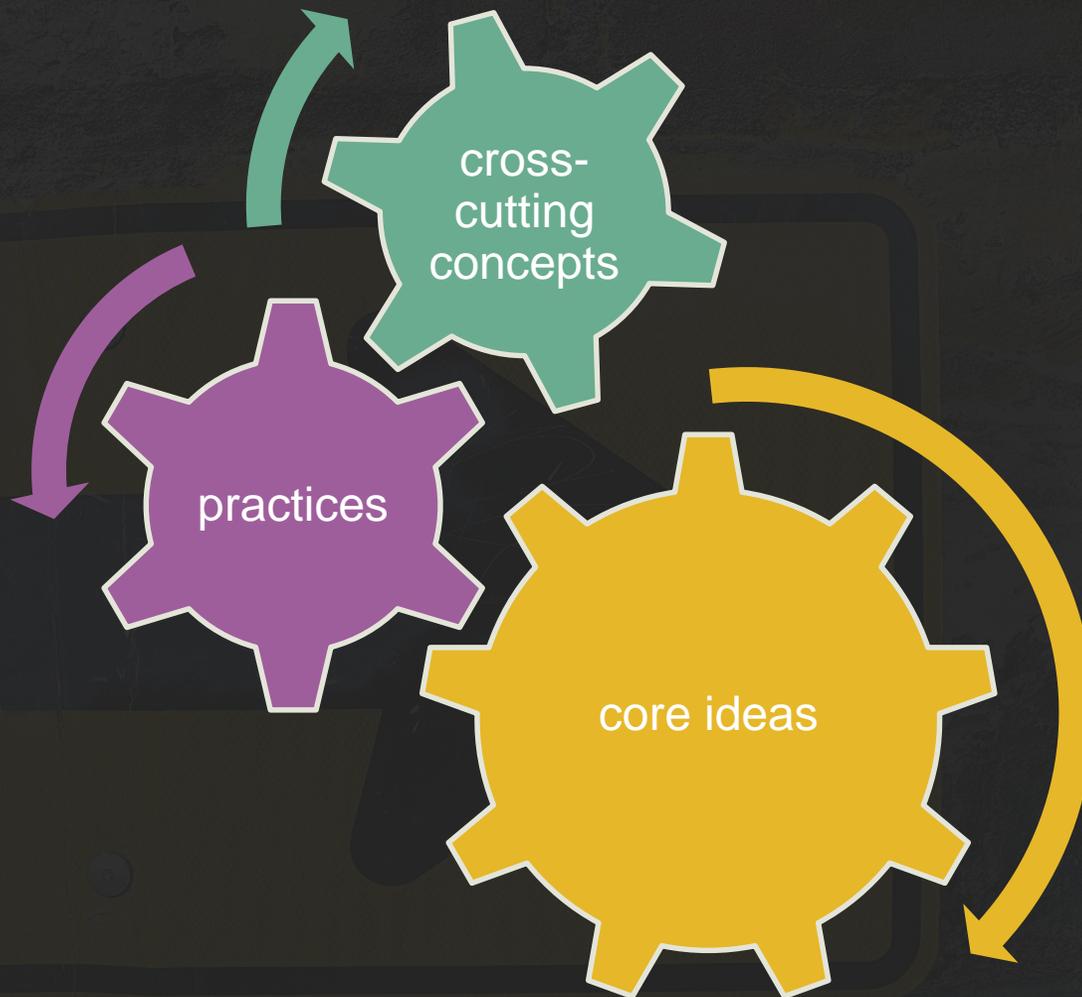


# DECISIONS TO MAKE

***SHIFT***



**3 Dimensional Learning**



# DECISIONS TO MAKE



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# DECISIONS TO MAKE

**we value**

- 1) All Standards for All Students
- 2) Preserve Choice
- 3) Maintain Traditional Disciplines

# DECISIONS TO MAKE

## options

### Conceptual Progressions Model

- Integrated Science 1
- Integrated Science 2
- Integrated Science 3

### Science Domains Model

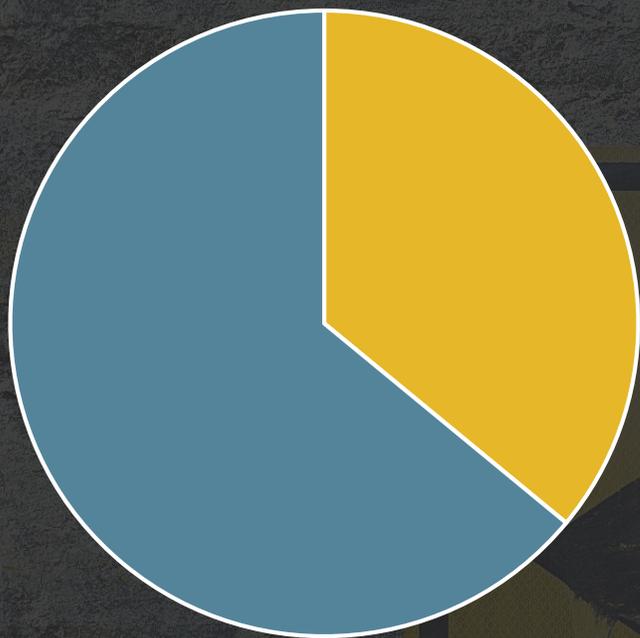
- Physical Science
- Life Science
- Earth & Space Science

### Modified Domains Model

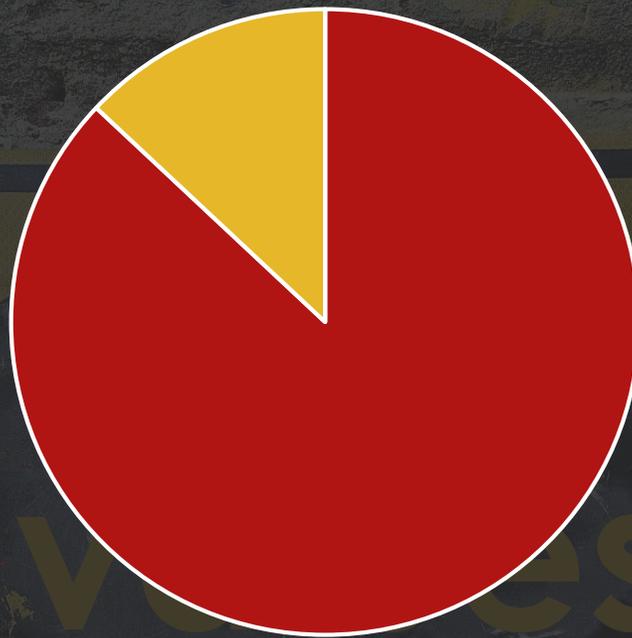
- Biology
- Chemistry
- Physics

# DECISIONS TO MAKE

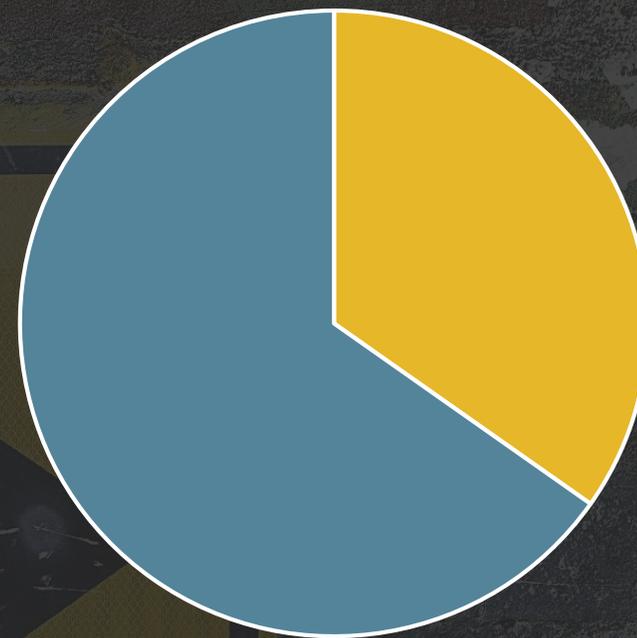
Chemistry



Biology



Physics



Physical Science

Life Science

Earth Science

# CHEMISTRY



# CHEMISTRY

## challenges

- 1) reconciling what stays/goes
- 2) integrating ES from chem view
- 3) organizing scope & sequence

# CHEMISTRY

## our sequence

1<sup>st</sup> semester

evolution of  
atomic theory &  
periodic table



nuclear chem\*



gas laws



chemical  
bonding &  
nomenclature

2<sup>nd</sup> semester

chem reactions,  
moles, &  
stoichiometry



energy and its  
sources\*



mixtures and  
solutions



environmental  
chemistry\*

# PHYSICS



# PHYSICS

**Physics Foundations** (assessed both semesters)

**Evidence of the Big Bang**

**Life Cycle of Stars**

**Our Solar System**

**Planet Earth**

**Science & Engineering Practices** (assessed both semesters)

# BIOLOGY



# BIOLOGY

## Matter & Energy in Organisms

- Carbon TIME Systems and Scale
- Carbon TIME Animals
- Carbon TIME Plants
- Carbon TIME Matter & Energy

## Interdependent Relationships in Ecosystems

- Carbon TIME Human Energy
- Asian Carp - Searching for Solutions

## Inheritance of Traits

- Structure and Function of DNA
- Growth and Development of Organisms
- Inheritance of Traits
- Variation of Traits

## Natural Selection and Evolution

- NW Antibiotic resistance
- NW Juncos
- NW Common Ancestry
- Coevolution

# BIOLOGY

Want to know more  
about CarbonTIME?

[TINYURL.COM/CARBONTIMEMSTA17](https://tinyurl.com/carbontimemsta17)