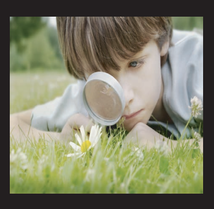
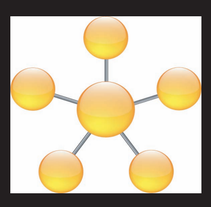
Fundamental Science Concepts For High School Grades

Inquiry

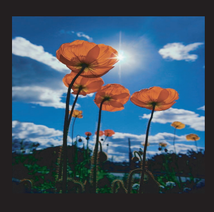


How can I test my ideas about the world?

What are things made of?



Atoms: Atoms combine in different, but predictable ways to form molecules, chemicals, and the wide array of materials that exist.

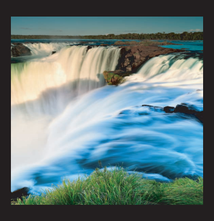


Cells: All organisms are made of cells which are structurally and functionally similar.

Radiation: Radiant energy pervades the Universe.

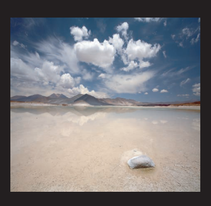
How do systems interact and change?

Systems Change: Complex systems change and/or evolve according to a small set of relatively simple rules.



Forces: The behavior of matter and systems is driven by forces.

Energy: Systems can transfer, transform, and store energy/mass.



Conservation of Mass and Energy: Humans discovered that only a few quantities are conserved.

Variation: Genetic variations and natural selection enable life systems to evolve in response to many environmental changes.

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