

# DCI Arrangements (Updated 2022)

**From Molecules to Organisms: Structures and Processes** numbers, and number systems.

LS.1

**a Structure and Function** LS.1.A

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**b Growth and Development of Organisms** LS.1.B

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**c Organization for Matter and Energy Flow in Organisms** LS.1.C

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**d Information Processing** LS.1.D

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**Ecosystems: Interactions, Energy, and Dynamics** LS.2

**a Interdependent Relationships in Ecosystems** LS.2.A

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**b Cycles of Matter and Energy Transfer in Ecosystems** LS.2.B

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**c Ecosystem Dynamics, Functioning, and Resilience** LS.2.C

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**d Social Interactions and Group Behavior** LS.2.D

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**Heredity: Inheritance and Variation of Traits** LS.3

**a Inheritance of Traits** LS.3.A

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**b Variation of Traits** LS.3.B

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**Biological Evolution: Unity and Diversity** LS.4

**E Evidence of Common Ancestry and Diversity** LS.4.A

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**a Natural Selection** LS.4.B

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**b Adaptation** LS.4.C

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**F Biodiversity and Humans** LS.4.D

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**Earth's Place in the Universe** ESS.1

**a The Universe and Its Stars** ESS.1.A

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**b Earth and the Solar System** ESS.1.B

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**c The History of Planet Earth** ESS.1.C

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**Earth's Systems** ESS.2

**a Earth Materials and Systems** ESS.2.A

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**b Plate Tectonics and Large-Scale System Interactions** ESS.2.B

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**c The Roles of Water in Earth's Surface Processes** ESS.2.C

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**d Weather and Climate** ESS.2.D

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**e Biogeology** ESS.2.E

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**Earth and Human Activity** ESS.3

**a Natural Resources** ESS.3.A

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**b Natural Hazards** ESS.3.B

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**c Human Impacts on Earth Systems** ESS.3.C

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**d Global Climate Change** ESS.3.D

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**Matter and Its Interactions** PS.1

**a Structure and Properties of Matter** PS.1.A

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**b Chemical Reactions** PS.1.B

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**c Nuclear Processes** PS.1.C

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**Motion and Stability: Forces and Interactions** PS.2

**a Forces and Motion** PS.2.A

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**b Types of Interactions** PS.2.B

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**c Stability and Instability in Physical Systems** PS.2.C

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**Energy** PS.3

**a Definitions of Energy** PS.3.A

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**b Conservation of Energy and Energy Transfer** PS.3.B

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**c Relationship Between Energy and Forces** PS.3.C

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**d Energy in Chemical Processes and Everyday Life** PS.3.D

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**Waves and Their Applications in Technologies for Information Transfer** PS.4

**a Wave Properties** PS.4.A

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**b Electromagnetic Radiation** PS.4.B

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**c Information Technologies and Instrumentation** PS.4.C

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**Engineering Design** ETS.1

**a Defining and Delimiting an Engineering Problem** ETS.1.A

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**b Developing Possible Solutions** ETS.1.B

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**c Optimizing the Design Solution** ETS.1.C

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