**Middle School Scope and Sequence**

**Grades 6 – 8**

**Red – Inquiry**

**Purple – Unifying Themes**

**Blue – Physical Science**

**Green – Life Science**

**Orange – Earth and Space Science**

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| **Physical Science** | **Life Science** | **Earth and Space Science** |
| Cause and Effect Energy and MatterPatternsScale, proportion, and quantityStability and change Structure and functionSystems and system models | Cause and Effect Energy and MatterPatternsScale, proportion, and quantityStability and change Structure and functionSystems and system models  | Cause and effect Energy and matterPatternsScale, proportion, and quantityStability and Change Systems and system models |
| Analyze and interpret dataAsk questions and define problemsConstruct explanations and design solutionsDevelop and use modelsEngage in argument from evidenceObtain, evaluate, and communicate informationPlan and carry out investigationsUse mathematics and computational thinking | Analyze and interpret dataAsk questions and define problemsConstruct explanations and design solutions Develop and use modelsEngage in Argument from evidence Obtain, evaluate, and communicate informationPlan and carry out investigationsUse mathematics and computational thinking | Analyze and interpret data Ask questions and define problemsConstruct explanations and design solutionsDevelop and use modelsEngage in argument from evidenceObtain, evaluate, and communicate informationPlan and carry out investigationsUse mathematics and computational thinking |
| Structure and properties of matter Chemical reactionsDefinitions of energyForce and motionTypes of interactionsDefinitions of energyConservation of energy and energy transferRelationship between energy and forcesWave propertiesElectromagnetic radiationInformation technologies and instrumentation | Structure and functionGrowth and development of organismsOrganization for matter and energy flow in organismsInformation processingInterdependent relationships in ecosystemsCycle of matter and energy transfer in ecosystemsEcosystem dynamics, functioning, and resilienceBiodiversity and humansGrowth and development of organismsInheritance of traitsVariation of traitsEvidence of common ancestry and diversityNatural selectionAdaptation | The universe and its starsEarth and the solar systemHistory of planet EarthEarth’s materials and systemsPlate tectonics and large-scale system interactionsRoles of water in Earth’s surface processesWeather and climateNatural resourcesNatural hazardsHuman impacts on earth systems |