

2020/2021 School Year

7th grade Science

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Matter and Its Interactions

- Atomic structure
- Elements, Mixtures and Compounds
- Law of Conservation of Mass
- Physical and Chemical properties
- States of Matter

From Molecules to Organisms: Structure and Processes

- Cell organelles
- Diffusion, passive transport and homeostasis
- Eukaryotic and Prokaryotic Cells
- 6 Kingdoms and their physical characteristics
- Levels of organization/Cells to organism
- Human Body Systems
- Behavioral and Structural Adaptations
- Sexual and Asexual reproduction
- Mitosis and Meiosis
- Photosynthesis and Cellular Respiration
- Carbon Oxygen Cycle
- Mutations
- Dominant and Recessive alleles and Punnett Squares

Earth and Human Activity

- Atmosphere of the Earth
- Human activity and Climate

Links Among Engineering, Technology, Science and Society

- Bioengineering

RCS 7th Grade Science Standards Guide Grading Period Standards Pacing

1st

Introductory Period, Inquiry, Engineering, and STEM 2 Weeks 7.PS1.5—Physical and chemical properties Part 1(What Matter Is) 7.PS1.3—Composition of matter 7.PS1.5—Physical and chemical properties Part 2(Periodic Table-Properties of Elements) 7.PS1.1—Structure of atoms 3 Weeks 7.PS1.6—States of matter 1 Week 7.PS1.2—Elemental molecules and compound molecules 1 Week 7.LS1.4—Levels of organization from cell to organism 7.LS1.3—Comparing cells 1 Week

2nd

7.LS1.1—Cell organelles 1 Week 7.LS1.2—Cell membrane and passive transport 1 Week 7.LS1.5—Body systems 1.5 Weeks 7.ETS2.1—Bioengineering Solution 1 Week 7.LS3.1—Variation of traits 7.LS3.3—Genetic probability 2 Weeks 7.LS1.8—Growth and development of organisms (mitosis) 7.LS3.2—Mitosis and meiosis 1.5 Weeks

3rd

7.LS1.7—Sexual and asexual reproduction 1 Week 7.LS1.6—Behavior and structural adaptations 1.5 Weeks 7.LS2.1—Cycles of matter and energy transfer in ecosystems 7.LS1.9—Cycling of matter and flow of energy 1.5 Weeks 7.PS1.4—Chemical reactions 1.5 Weeks

4th

7.ESS3.1—Composition of the atmosphere 7.ESS3.2—Human activity and climate change 1.5 Weeks
Review 2-3 Weeks Testing 2-3 Weeks End of Year Enrichment 2