# THE RISE OF THE LEGENDS

## ALIGNMENT STANDARDS BY STANDARD

**NGSS**

| CHAPTER | PAGE | STANDARD: NGSS |
|---|---|---|
| 5 | 29 | **MS-PS4-2** Waves and their Applications in Technologies for Information Transfer |
| 7 | 42 | **MS-PS2-3** Motion and Stability: Forces and Interactions |
| 8 | 47-48 | **MS-PS2-3** Motion and Stability: Forces and Interactions |
| 8 | 47-48 | **MS-LS1-8** From Molecules to Organisms: Structures and Processes |
| 19 | 100 | **MS-ESS1-1** Earth's Place in the Universe |
| 19 | 104 | **MS-PS4-1** Waves and their Applications in Technologies for Information Transfer |
| 20 | 111 | **MS-ESS1-1** Earth's Place in the Universe |
| 21 | 115 | **MS-ESS3-5** Earth and Human Activity |
| 24 | 144 | **MS-ESS2-4** Earth's Systems |
| 24 | 145 | **MS-PS1-3** Matter and its Interactions |
| 24 | 145 | **MS-ETS1-1** Engineering Design |
| 26 | 155 | **MS-PS2-3** Motion and Stability: Forces and Interactions |

| CHAPTER | PAGE | STANDARD: NGSS |
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| 26 | 155 | **MS-ETS1-1** Engineering Design |
| 41 | 267 | **MS-ESS1-1** Earth's Place in the Universe |
| 42 | 270 | **MS-ETS1-1** Engineering Design |
| 42 | 275 | **MS-LS2-1** Ecosystems: Interactions, Energy, and Dynamics |
| 50 | 322 | **MS-PS2-3** Motion and Stability: Forces and Interactions |
| 50 | 322 | **MS-PS3-3** Energy |
| 50 | 323 | **MS-PS2-5** Motion and Stability: Forces and Interactions |
| 51 | 326 | **MS-PS1-2** Matter and its Interactions |
| 51 | 326 | **MS-PS1-4** Matter and its Interactions |

## COMMON CORE ELA

| CHAPTER | PAGE | STANDARD: COMMON CORE ELA |
| --- | --- | --- |
| **ALL CHAPTERS** | | **CCSS.ELA-LITERACY.RL.6.10** |
| **ALL CHAPTERS** | | **CCSS.ELA-LITERACY.RL.7.10** |
| **ALL CHAPTERS** | | **CCSS.ELA-LITERACY.RL.8.10** |

## COMMON CORE MATH

| CHAPTER | PAGE | STANDARD: COMMON CORE MATH |
|:---:|:---:|:---|
| 8 | 47-48 | CCSS.MATH.CONTENT.6.NS.C.8 |
| 17 | 92 | CCSS.MATH.CONTENT.7.RP.A.3 |
| 19 | 104 | CCSS.MATH.CONTENT.6.NS.B.3 |
| 21 | 114 | CCSS.MATH.CONTENT.7.G.A.1 |
| 21 | 115 | CCSS.MATH.CONTENT.6.NS.B.3 |
| 21 | 115 | CCSS.MATH.CONTENT.6.NS.B.2 |
| 21 | 117 | CCSS.MATH.CONTENT.5.OA.A.2 |
| 23 | 125 | CCSS.MATH.CONTENT.7.G.A.2 |

## ISTE

| CHAPTER | PAGE | STANDARD: ISTE |
|:---:|:---:|:---|
| ALL CHAPTERS | | 1.2.b |
| ALL CHAPTERS | | 1.3.a |
| ALL CHAPTERS | | 1.5.b |
| ALL CHAPTERS | | 1.6.c |
| ALL CHAPTERS | | 1.7.c |

| CHAPTER | PAGE | STANDARD: CSTA |
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| 17 | 91 | 1A-CS-02 |
| 18 | 95 | 1A-CS-01 |
| 20 | 111 | 1A-CS-02 |
| 49 | 316 | 1A-CS-02 |
| ALL CHAPTERS | | 1A-DA-07 |
| ALL CHAPTERS | | 1A-AP-08 |
| ALL CHAPTERS | | 1A-AP-09 |
| ALL CHAPTERS | | 1A-AP-12 |

SEL

| CHAPTER | PAGE | STANDARD STRAND | STANDARD: SEL |
|---------|------|-----------------|---------------|
| 28 | 173 | Relationship Skills | Practicing teamwork and collaborative problem-solving |
| 28 | 173 | Self-Management | Using planning and organizational skills |
| 28 | 175 | Self-Awareness | Developing interests and a sense of purpose |
| 29 | 182 | Responsible Decision-Making | Reflecting on one's role to promote personal, family, and community well-being |
| 30 | 183 | Social Awareness | Recognizing strengths in others |

| CHAPTER | PAGE | STANDARD STRAND | STANDARD: SEL |
|---|---|---|---|
| 30 | 183 | **Relationship Skills** | Standing up for the rights of others |
| 34 | 215 | **Relationship Skills** | Resisting negative social pressure |
| 34 | 215 | **Responsible Decision-Making** | Identifying solutions for personal and social problems |
| 34 | 215 | **Self-Awareness** | Integrating personal and social identities |
| 36 | 224 | **Self-Management** | Identifying and using stress management strategies |
| 36 | 224 | **Self-Awareness** | Identifying one's emotions |
| 37 | 226 | **Self-Management** | Demonstrating personal and collective agency |
| 37 | 226 | **Self-Awareness** | Developing interests and a sense of purpose |
| 37 | 232 | **Self-Management** | Demonstrating personal and collective agency |
| 38 | 241 | **Social Awareness** | Understanding and expressing gratitude |
| 39 | 245 | **Responsible Decision-Making** | Reflecting on one's role to promote personal, family, and community well-being |
| 39 | 245 | **Self-Awareness** | Developing interests and a sense of purpose |

# THE RISE OF THE LEGENDS

## ALIGNMENT STANDARDS BY CHAPTER

| CHAPTER | PAGE | STANDARDS DOCUMENT | STANDARD NUMBER | STANDARD |
|---------|------|--------------------|-----------------|----------|
| 5 | 29 | NGSS | MS-PS4-2 | Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials. |
| 7 | 42 | NGSS | MS-PS2-3 | Ask questions about data to determine the factors that affect the strength of electric and magnetic forces. |
| 8 | 47-48 | MATH Common Core | CCSS.MATH. CONTENT.6. NS.C.8 | Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate. |
| 8 | 47-48 | MATH Common Core | MS-PS2-3 | Ask questions about data to determine the factors that affect the strength of electric and magnetic forces. |
| 8 | 47-48 | MATH Common Core | MS-LS1-8 | Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories. |
| 17 | 91 | CSTA | 1A-CS-02 | Use appropriate terminology in identifying and describing the function of common physical components of computing systems (hardware). |
| 17 | 92 | MATH Common Core | CCSS.MATH. CONTENT.7. RP.A.3 | Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error. |

| Chapter | Page | Standards Document | Standard Number | Standard |
|---------|------|--------------------|-----------------|----------|
| 18 | 95 | **CSTA** | 1A-CS-01 | Select and operate appropriate software to perform a variety of tasks, and recognize that users have different needs and preferences for the technology they use. |
| 19 | 100 | **NGSS** | MS-ESS1-1 | Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons. |
| 19 | 104 | **MATH Common Core** | CCSS.MATH.CONTENT.6.NS.B.3 | Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation. |
| 19 | 104 | **NGSS** | MS-PS4-1 | Use mathematical representations to describe a simple model for waves that includes how the amplitude of a wave is related to the energy in a wave. |
| 20 | 111 | **CSTA** | 1A-CS-02 | Use appropriate terminology in identifying and describing the function of common physical components of computing systems (hardware). |
| 20 | 111 | **NGSS** | MS-ESS1-1 | Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons. |
| 21 | 114 | **MATH Common Core** | CCSS.MATH.CONTENT.7.G.A.1 | Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale. |
| 21 | 115 | **MATH Common Core** | CCSS.MATH.CONTENT.6.NS.B.3 | Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation. |
| 21 | 115 | **MATH Common Core** | CCSS.MATH.CONTENT.6.NS.B.2 | Fluently divide multi-digit numbers using the standard algorithm. |

| Chapter | Page | Standards Document | Standard Number | Standard |
|---|---|---|---|---|
| 21 | 115 | **NGSS** | MS-ESS3-5 | Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century. |
| 21 | 117 | **MATH Common Core** | CCSS.MATH.CONTENT.5.OA.A.2 | Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product. |
| 23 | 125 | **MATH Common Core** | CCSS.MATH.CONTENT.7.G.A.2 | Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle. |
| 24 | 144 | **NGSS** | MS-ESS2-4 | Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity. |
| 24 | 145 | **NGSS** | MS-PS1-3 | Gather and make sense of information to describe that synthetic materials come from natural resources and impact society. |
| 24 | 145 | **NGSS** | MS-ETS1-1 | Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions. |
| 26 | 155 | **NGSS** | MS-PS2-3 | Ask questions about data to determine the factors that affect the strength of electric and magnetic forces. |

| Chapter | Page | Standards Document | Standard Number | Standard |
|---|---|---|---|---|
| 26 | 155 | NGSS | MS-ETS1-1 | Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions. |
| 28 | 173 | SEL | Relationship Skills | Practicing teamwork and collaborative problem-solving |
| 28 | 173 | SEL | Self-Management | Using planning and organizational skills |
| 28 | 175 | SEL | Self-Awareness | Developing interests and a sense of purpose |
| 29 | 182 | SEL | Responsible Decision-Making | Reflecting on one's role to promote personal, family, and community well-being |
| 30 | 183 | SEL | Relationship Skills | Standing up for the rights of others |
| 34 | 215 | SEL | Relationship Skills | Resisting negative social pressure |
| 34 | 215 | SEL | Responsible Decision-Making | Identifying solutions for personal and social problems |
| 34 | 215 | SEL | Self-Awareness | Integrating personal and social identities |
| 36 | 224 | SEL | Self-Management | Identifying and using stress-management strategies |
| 36 | 224 | SEL | Self-Awareness | Identifying one's emotions |

| Chapter | Page | Standards Document | Standard Number | Standard |
|---|---|---|---|---|
| 37 | 226 | SEL | Self-Management | Demonstrating personal and collective agency |
| 37 | 226 | SEL | Self-Awareness | Developing interests and a sense of purpose |
| 37 | 232 | SEL | Self-Management | Demonstrating personal and collective agency |
| 38 | 241 | SEL | Social Awareness | Understanding and expressing gratitude |
| 39 | 245 | SEL | Responsible Decision-Making | Reflecting on one's role to promote personal, family, and community well-being |
| 39 | 245 | SEL | Self-Awareness | Developing interests and a sense of purpose |
| 41 | 267 | NGSS | MS-ESS1-1 | Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons. |
| 42 | 270 | NGSS | MS-ETS1-1 | Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions. |
| 42 | 275 | NGSS | MS-LS2-1 | Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem. |
| 49 | 316 | CSTA | 1A-CS-02 | Use appropriate terminology in identifying and describing the function of common physical components of computing systems (hardware). |

| Chapter | Page | Standards Document | Standard Number | Standard |
|---------|------|--------------------|-----------------|----------|
| **50** | 322 | **NGSS** | MS-PS2-3 | Ask questions about data to determine the factors that affect the strength of electric and magnetic forces. |
| **50** | 322 | **NGSS** | MS-PS3-3 | Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer. |
| **50** | 323 | **NGSS** | MS-PS2-5 | Conduct an investigation and evaluate the experimental design to provide evidence that fields exist between objects exerting forces on each other even though the objects are not in contact. |
| **51** | 326 | **NGSS** | MS-PS1-2 | Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. |
| **51** | 326 | **NGSS** | MS-PS1-4 | Develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed. |
| **ALL CHAPTERS** | | **CSTA** | 1A-DA-07 | Identify and describe patterns in data visualizations, such as charts or graphs, to make predictions. |
| **ALL CHAPTERS** | | **CSTA** | 1A-AP-08 | Model daily processes by creating and following algorithms (sets of step-by-step instructions) to complete tasks. |
| **ALL CHAPTERS** | | **CSTA** | 1A-AP-09 | Model the way programs store and manipulate data by using numbers or other symbols to represent information. |
| **ALL CHAPTERS** | | **CSTA** | 1A-AP-12 | Develop plans that describe a program's sequence of events, goals, and expected outcomes. |

| Chapter | Page | Standards Document | Standard Number | Standard |
|---|---|---|---|---|
| **ALL CHAPTERS** | | **ELA Common Core** | CCSS.ELA-LITERACY.RL.6.10 | By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range. |
| **ALL CHAPTERS** | | **ELA Common Core** | CCSS.ELA-LITERACY.RL.7.10 | By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range. |
| **ALL CHAPTERS** | | **ISTE** | 1.2.b | Students engage in positive, safe, legal and ethical behavior when using technology, including in social interactions online or when using networked devices. |
| **ALL CHAPTERS** | | **ISTE** | 1.3.a | Students plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits. |
| **ALL CHAPTERS** | | **ISTE** | 1.7.c | Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal. |
| **ALL CHAPTERS** | | **ISTE** | 1.6.c | Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations. |
| **ALL CHAPTERS** | | **ISTE** | 1.5.b | Students collect data or identify relevant data sets, use digital tools to analyze them and represent data in various ways to facilitate problem-solving and decision-making. |
| **ALL CHAPTERS** | | **ELA Common Core** | CCSS.ELA-LITERACY.RL.8.10 | By the end of the year, read and comprehend literature, including stories, dramas, and poems, at the high end of grades 6-8 text complexity band independently and proficiently. |