# **SCIENCE**/Kindergarten



## **DIGITAL GAMES**

Weather and weather patterns NGSS.K.ESS2.D

Making observations & gathering data about weather NGSS.K.ETS1.A

and climate

Environmental change NGSS.K.ESS2.E

Natural resources NGSS.K.ESS3.A

Severe weather

KIT-REQUIRED GAME

Weather and climate NGSS.K.ESS



Interdependent Relationships in Ecosystems

## **DIGITAL GAMES**

Human impactNGSS.K.ESS3.CEngineering problemsNGSS.K.ETS1.AEffects of sunlightNGSS.K.ETS1.B

Ecological solutions NGSS.K.ETS1.B

**KIT-REQUIRED GAME** 

Plants and animals in their ecosystems NGSS.K.LS

NGSS.K.LS1.C NGSS.K.ESS2.E NGSS.K.ESS3.A NGSS.K.ESS3.C NGSS.K.ETS1.B

NGSS.K.ESS3.B



Forces and Interactions

## **DIGITAL GAMES**

Matter and energy in organismsNGSS.K.LS1.CForces and motionNGSS.K.PS2.AWhen objects collideNGSS.K.PS2.BEnergy and forcesNGSS.K.PS3.C

KIT-REQUIRED GAME

Pushing and pulling NGSS.K.PS



**Space Systems** 

## **DIGITAL GAMES**

The universe NGSS.1.ESS1.A The solar system's effect on Earth NGSS.1.ESS1.B

**KIT-REQUIRED GAME** 

NGSS.1.ESS1 The solar system



Structure, Function, and Information **Processing** 

## **DIGITAL GAMES**

Parts of organisms NGSS.1.LS1.A **Growth and development of organisms** NGSS.1.LS1.B Function of parts of organisms NGSS.1.LS1.D <u>Inheritance of traits in organisms</u> NGSS.1.LS3.A

NGSS.1.LS3.B

NGSS.1.PS4.C

KIT-REQUIRED GAME

Variation of traits in organisms

**Structure and function** NGSS.1.LS1



**DIGITAL GAMES** 

Sound waves NGSS.1.PS4.A **How light travels** NGSS.1.PS4.B <u>Using sound and light in communication</u>

KIT-REQUIRED GAME

**Light and sound** NGSS.1.PS4

# **SCIENCE/**2nd Grade

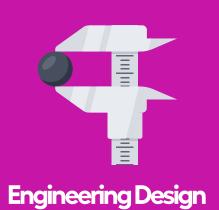


## **DIGITAL GAMES**

The changing earth NGSS.2.ESS1.C **Effects of wind and water on Earth** NGSS.2.ESS2.A NGSS.2.ESS2.B **Plate tectonics Effects and functions of water on Earth** NGSS.2.ESS2.C

KIT-REQUIRED GAME

Earth's systems: processes that shape the earth NGSS.2.ESS



## **DIGITAL GAMES**

Asking questions and identifying problems NGSS.2.ETS1.A **Developing possible solutions** NGSS.2.ETS1.B **Designing ecological solutions** NGSS.2.ETS1.B **Comparing and testing designs** NGSS.2.ETS1.C

KIT-REQUIRED GAME

**Engineering design** NGSS.2.ETS



Interdependent Relationships in **Ecosystems** 

## **DIGITAL GAMES**

NGSS.2.LS2.A Plants in their ecosystems Biodiversity within an ecosystem NGSS.2.LS4.D

KIT-REQUIRED GAME

Interdependent relationships in ecosystems NGSS.2.LS



**Properties of Matter** 

## **DIGITAL GAMES**

Structure and properties of matter NGSS.2.PS1.A Heating and cooling as chemical reactions NGSS.2.PS1.B

KIT-REQUIRED GAME

Structure and properties of matter NGSS.2.PS

# **SCIENCE/**3rd Grade



**DIGITAL GAMES** 

Weather and climate patterns NGSS.3.ESS2.D

How humans address natural hazards NGSS.3.ESS3.B

KIT-REQUIRED GAME

Weather and climate NGSS.3.ESS



Interdependent Relationships in Ecosystems **DIGITAL GAMES** 

Social interactions and group behaviors in ecosystems NGSS.3.LS2.D

Fossils NGSS.3.LS4.A

Extinction NGSS.3.LS4.A

Natural selection NGSS.3.LS4.B

Adaptation in organisms NGSS.3.LS4.C

NGSS.3.LS4.D

Effects of environmental changes on organisms NGSS.3.LS2.C

KIT-REQUIRED GAME

Organisms and their habitats

<u>Environmental impacts on organisms</u> NGSS.3.LS



Inheritance and Variation of Traits

**DIGITAL GAMES** 

Reproduction as part of a life cycle NGSS.3.LS1.B

<u>Inheritance</u> NGSS.3.LS3.A

<u>Variation of traits due to inheritance and development</u> NGSS.3.LS3.B

KIT-REQUIRED GAME

<u>Inheritance of traits</u>
NGSS.3.LS



Forces and Interactions

DIGITAL GAMES

Forces of motion NGSS.3.PS2

Behavior of objects when acted upon by an outside force NGSS.3.PS2.A

Electric and magnetic forces NGSS.3.PS2.B

KIT-REQUIRED GAME

Forces and interactions on and between objects NGSS.3.PS



Earth's Systems

<u>Fossils and geology</u>

NGSS.4.ESS1.C

<u>The effects of wind and water on Earth</u>

NGSS.4.ESS2.A

The formation of mountains and volcanoes as a result of plate NGSS.4.ESS2.B

<u>tectonics</u>

Physical characteristics of living things within a region/ NGSS.4.ESS2.E

ecosystem

Energy derived from natural resources NGSS.4.ESS3.A

<u>Natural hazards that result from Earth's systems</u> NGSS.4.ESS3.B

KIT-REQUIRED GAME

Earth's systems NGSS.4.ESS



**Engineering Design** 

### **DIGITAL GAMES**

<u>Energy and ecological solutions</u>

<u>Designing solutions for engineering problems due to Earth's</u>

NGSS.4.ETS1.A

NGSS.4.ETS1.B

systems

<u>Determining solutions and solving problems</u>

NGSS.4.ETS1.C

Internal and external structures and their functions

NGSS.4.ETS1.A

NGSS.4.LS1.D

NGSS.4.PS3.D

KIT-REQUIRED GAME

Sense receptors and their functions in animals

**Energy transfer through chemical reactions** 

Structure, function, and information processing NGSS.4.LS1



Matter and Energy in Organisms and Ecosystems **DIGITAL GAMES** 

Transfer of energy

Objects in motion

NGSS.4.PS3.A

The presence of energy in objects

Energy transfer through electricity

NGSS.4.PS3.B

Energy transfer through the collision of objects

NGSS.4.PS3.C

KIT-REQUIRED GAME

What is energy? NGSS.4.PS



Structure and Properties of Matter

DIGITAL GAMES

Amplitute and wavelength

Waves as regular patterns of motion (oceanic)

Reflection of light

NGSS.4.PS4.A

NGSS.4.PS4.B

Measuring waves with technology NGSS.4.PS4.C

KIT-REQUIRED GAME

Waves NGSS.4.PS4



Earth's Systems

## **DIGITAL GAMES**

Cycles in the environment NGSS.5.LS2.B NGSS.5.ESS1.A The sun as a star NGSS.5.ESS1.B The sun's effect on Earth **Major Earth systems** NGSS.5.ESS2.A NGSS.5.ESS3.C **Human effect on Earth's systems** 

**KIT-REQUIRED GAMES** 

NGSS.5.ESS The solar system **Composition of Earth** NGSS.5.ESS



**Engineering Design** 

### **DIGITAL GAMES**

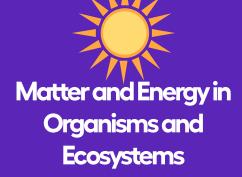
**Identifying problems and possible solutions** NGSS.5.ETS1.A (considering constraints and criteria for success)

**Developing and conducting tests** NGSS.5.ETS1.B

**Optimizing solutions from results** NGSS.5.ETS1.C

KIT-REQUIRED GAME

NGSS.5.ETS **Engineering design** 



### **DIGITAL GAMES**

NGSS.5.LS1.C The energy cycle (sun, plants, food) Composers and decomposers in ecosystems NGSS.5.LS2.A

KIT-REQUIRED GAME

NGSS.5.LS Sun and energy



Structure and **Properties of Matter** 

## **DIGITAL GAMES**

The structure of matter

Measuring matter to identify materials NGSS.5.PS1.A Chemical reactions and their effect on matter NGSS.5.PS1.B NGSS.5.PS2.B **Gravitational force** Solar energy and its effect on plant matter NGSS.5.PS3.D **Water on Earth** NGSS.ESS2.C

NGSS.5.PS1.A

KIT-REQUIRED GAME

Structure and properties of matter NGSS.5.PS

# **SCIENCE/**Physical Science



**DIGITAL GAMES** 

<u>Liquids, solids and gases</u>

<u>Substances and their properties</u>

<u>Chemical properties of matter</u>

NGSS.MS.PS1.A

NGSS.MS.PS1.A

KIT-REQUIRED GAME

<u>Chemical reactions</u> NGSS.MS.PS1



Structure and Properties of Matter

**DIGITAL GAMES** 

Atoms and chemical reactions upon them NGSS.MS.PS1.B

How matter changes as a result of chemical reactions NGSS.MS.PS1.B

KIT-REQUIRED GAME

Structure and properties of matter NGSS.MS.PS1



Forces and Interactions

**DIGITAL GAMES** 

Newton's third law NGSS.MS.PS2.A Electric, magnetic, and gravitational forces NGSS.MS.PS2.B

KIT-REQUIRED GAME

Forces and interaction NGSS.MS.PS2

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**Energy** 

**DIGITAL GAMES** 

Potential and kinetic energy

Heat as energy

NGSS.MS.PS3.A

Conservation and transfer of energy

NGSS.MS.PS3.A

NGSS.MS.PS3.B

Transfer of energy due to interactions between objects

Chemical processes of cellular respiration

NGSS.MS.PS3.D

KIT-REQUIRED GAME

Energy NGSS.MS.PS3



**DIGITAL GAMES** 

Waves as repeating patterns (sound)

How light travels

Information technologies and instrumentation

NGSS.MS.PS4.A

NGSS.MS.PS4.B

NGSS.MS.PS4.C

KIT-REQUIRED GAME

Waves and electromagnetic radiation NGSS.MS.PS4



### **DIGITAL GAMES**

Reproduction in various organisms NGSS.MS.LS1.B

NGSS.MS.LS1.C Food and energy cycles and their effects on organisms

KIT-REQUIRED GAME

Growth, development, and reproduction of organisms NGSS.MS.LS3



Structure, Function, and Information **Processing** 

#### **DIGITAL GAMES**

Cells and cell structure NGSS.MS.LS1.A

Electromagnetic, mechanical and chemical inputs and

their effects on the human brain

Traits that lead to natural selection

NGSS.MS.LS1.D

KIT-REQUIRED GAME

Structure, function, and information processing NGSS.MS.LS1



**Natural Selection** and Adaptations

## **DIGITAL GAMES**

Inheritance of traits in organisms NGSS.MS.LS3.A

Variation of traits due to genetics (including mutations) NGSS.MS.LS3.B

NGSS.MS.LS4.A Fossils as evidence of natural selection

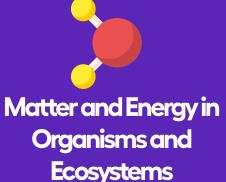
Adaptation and its role in natural selection NGSS.MS.LS4.C

KIT-REQUIRED GAME

NGSS.MS.LS4.A Natural selection and adaptations

NGSS.MS.LS4.B NGSS.MS.LS4.C

NGSS.MS.LS4.B



#### **DIGITAL GAMES**

Energy cycle in ecosystems (producers, consumers and

NGSS.MS.LS2.B decomposers)

**Dynamic nature of ecosystems** NGSS.MS.LS2.C

KIT-REQUIRED GAME

Matter and energy in organisms and ecosystems NGSS.MS.LS1

NGSS.MS.LS2



## **DIGITAL GAME**

Biodiversity and its effects on humans NGSS.MS.LS4.D

Biodiversity as a measure of an ecosystem's health NGSS.MS.LS2.C

NGSS.MS.LS2.A The importance of predators in an ecosystem

Interdependent relationships within ecosystems NGSS.MS.LS2.A

KIT-REQUIRED GAME

Interdependent relationships in ecosystems NGSS.MS.LS

## **SCIENCE** / Earth Science



### **DIGITAL GAMES**

The universe and Earth's solar system

Geologic evidence for Earth's history

NGSS.MS.ESS1.C

The interaction of Earth's systems over time

NGSS.MS.ESS2.A

#### **KIT-REQUIRED GAME**

**DIGITAL GAMES** 

Earth's history through geology NGSS.MS.ESS2



**History of Earth** 

#### En En

<u>Energy cycles and their effect on earth</u>

NGSS.MS.ESS2.A

<u>Plate tectonics and large-scale system interactions</u>

NGSS.MS.ESS2.B

#### KIT-REQUIRED GAME

Earth's materials and systems NGSS.MS.ESS2



## **DIGITAL GAMES**

<u>Determining problems and possible solutions considering</u> NGSS.MS.ETS1.A <u>constraints and criteria</u>

Developing possible solutions (ecosystems)

Developing and testing solutions

Testing possible solutions considering constraints and criteria

NGSS.MS.ETS1.B

NGSS.MS.ETS1.B

<u>The iterative process in testing solutions</u>

NGSS.MS.ETS1.C

<u>Human reliance on natural resources</u>

NGSS.MS.ESS3.A

KIT-REQUIRED GAME

<u>Human impacts on the earth</u> NGSS.MS.ESS3



## **DIGITAL GAMES**

Water and Earth's surface processes

Movement of air and water and their effect on climate

NGSS.MS.ESS2.C

The movement of water

NGSS.MS.ESS2.C

Predicting weather based on oceanic and atmospheric patterns

NGSS.MS.ESS2.C

Forecasting natural hazards NGSS.MS.ESS3.B

NGSS.MS.ESS3.C

NGSS.MS.ESS3.D

Climate change due to human activities NGSS.MS.ESS3.D

KIT-REQUIRED GAME

Weather and climate

NGSS.MS.ESS2

NGSS.MS.ESS2.C

NGSS.MS.ESS2.D

**VIEW ADDITIONAL RELATED GAMES** 

Human activities and their effects on the biosphere