

### Connections to Standards in Gateway

PLTW curriculum is designed to empower students to thrive in an evolving world. As a part of the design process when developing and updating our curriculum, we focus on connections to a variety of standards. PLTW App Creators connects to standards in the following:

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# Common Core College and Career Readiness Anchor Standards

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## Reading

### Key Ideas and Details

#### CCSS.ELA-LITERACY.CCRA.R.1

Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

#### CCSS.ELA-LITERACY.CCRA.R.10

Read and comprehend complex literary and informational texts independently and proficiently.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

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## Writing

### Text Types and Purposes

#### CCSS.ELA-LITERACY.CCRA.W.2

Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

#### CCSS.ELA-LITERACY.CCRA.W.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

# Common Core College and Career Readiness Anchor Standards

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## Speaking and Listening

### Comprehension and Collaboration

#### CCSS.ELA-LITERACY.CCRA.SL.1

Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8

2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level

2.1    2.2    2.3    2.4    2.5   Game Design

3.1

#### CCSS.ELA-LITERACY.CCRA.SL.2

Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8

2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level

2.1    2.2    2.3    2.4    2.5   Game Design

3.1

#### CCSS.ELA-LITERACY.CCRA.SL.4

Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8

2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level

2.1    2.2    2.3    2.4    2.5   Game Design

3.1

#### CCSS.ELA-LITERACY.CCRA.SL.5

Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8

2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level

2.1    2.2    2.3    2.4    2.5   Game Design

3.1

# Common Core College and Career Readiness Anchor Standards

## CCSS.ELA-LITERACY.CCRA.SL.6

Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

## Language

### Vocabulary Acquisition and Use

#### CCSS.ELA-LITERACY.CCRA.L.4

Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

#### CCSS.ELA-LITERACY.CCRA.L.5

Demonstrate understanding of word relationships and nuances in word meanings.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

#### CCSS.ELA-LITERACY.CCRA.L.6

Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

# Common Core State Standards for English Language Arts 6–8 Literacy Standards for History/Social Studies, Science, and Technical Subjects

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## Reading Science/Technical

### Key Ideas and Details

#### CCSS.ELA-LITERACY.RST.6-8.2

Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

#### CCSS.ELA-LITERACY.RST.6-8.3

Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

### Craft and Structure

#### CCSS.ELA-LITERACY.RST.6-8.4

Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

### Range of Reading and Level of Text Complexity

#### CCSS.ELA-LITERACY.RST.6-8.10

By the end of grade 8, read and comprehend science/technical texts in the grades 6–8 text complexity band independently and proficiently.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

# Common Core State Standards for English Language Arts 6–8 Literacy Standards for History/Social Studies, Science, and Technical Subjects

## Writing in History/social Studies, Science, and Technical Subjects

### Text Types and Purposes

#### CCSS.ELA-LITERACY.WHST.6-8.2

Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.

1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8

2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level

2.1    2.2    2.3    2.4    2.5   Game Design

3.1

#### CCSS.ELA-LITERACY.WHST.6-8.2.d

Use precise language and domain-specific vocabulary to inform about or explain the topic.

1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8

2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level

2.1    2.2    2.3    2.4    2.5   Game Design

3.1

### Production and Distribution of Writing

#### CCSS.ELA-LITERACY.WHST.6-8.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8

2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level

2.1    2.2    2.3    2.4    2.5   Game Design

3.1

### Research to Build and Present Knowledge

#### CCSS.ELA-LITERACY.WHST.6-8.9

Draw evidence from informational texts to support analysis, reflection, and research.

1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8

2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level

2.1    2.2    2.3    2.4    2.5   Game Design

3.1

# Common Core State Standards for English Language Arts 6th Grade

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## Reading Informational

### Key Ideas and Details

#### CCSS.ELA-LITERACY.RI.6.2

Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### Craft and Structure

#### CCSS.ELA-LITERACY.RI.6.4

Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

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## Writing

### Text Types and Purposes

#### CCSS.ELA-LITERACY.W.6.1.c

Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

#### CCSS.ELA-LITERACY.W.6.2

Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

# Common Core State Standards for English Language Arts 6th Grade

## CCSS.ELA-LITERACY.W.6.2.d

Use precise language and domain-specific vocabulary to inform about or explain the topic.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

## CCSS.ELA-LITERACY.W.6.3.d

Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

## Production and Distribution of Writing

### CCSS.ELA-LITERACY.W.6.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3.)

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### CCSS.ELA-LITERACY.W.6.5

With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1



# Common Core State Standards for English Language Arts 6th Grade

## Research to Build and Present Knowledge

### CCSS.ELA-LITERACY.W.6.9

Draw evidence from literary or informational texts to support analysis, reflection, and research.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
  - 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
  - 2.1    2.2    2.3    2.4    2.5   Game Design
  - 3.1
- 

## Speaking and Listening

### Comprehension and Collaboration

#### CCSS.ELA-LITERACY.SL.6.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

#### CCSS.ELA-LITERACY.SL.6.1.a

Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

#### CCSS.ELA-LITERACY.SL.6.1.b

Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

# Common Core State Standards for English Language Arts 6th Grade

## CCSS.ELA-LITERACY.SL.6.1.c

Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

## CCSS.ELA-LITERACY.SL.6.2

Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

## Presentation of Knowledge and Ideas

### CCSS.ELA-LITERACY.SL.6.5

Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### CCSS.ELA-LITERACY.SL.6.6

Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

# Common Core State Standards for English Language Arts 6th Grade

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## Language

### Vocabulary Acquisition and Use

#### CCSS.ELA-LITERACY.L.6.4

Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

#### CCSS.ELA-LITERACY.L.6.6

Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

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# Common Core State Standards for English Language Arts 7th Grade

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## Reading Literature

### Key Ideas and Details

#### CCSS.ELA-LITERACY.RL.7.1

Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

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## Writing

### Text Types and Purposes

#### CCSS.ELA-LITERACY.W.7.2.d

Use precise language and domain-specific vocabulary to inform about or explain the topic.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

#### CCSS.ELA-LITERACY.W.7.3.d

Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

### Production and Distribution of Writing

#### CCSS.ELA-LITERACY.W.7.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 7.w.1–3)

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

# Common Core State Standards for English Language Arts 7th Grade

## CCSS.ELA-LITERACY.W.7.5

With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
  - 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
  - 2.1    2.2    2.3    2.4    2.5   Game Design
  - 3.1
- 

## Speaking and Listening

### Comprehension and Collaboration

#### CCSS.ELA-LITERACY.SL.7.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

#### CCSS.ELA-LITERACY.SL.7.1.a

Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

#### CCSS.ELA-LITERACY.SL.7.1.b

Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

# Common Core State Standards for English Language Arts 7th Grade

## CCSS.ELA-LITERACY.SL.7.1.c

Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

## CCSS.ELA-LITERACY.SL.7.1.d

Acknowledge new information expressed by others and, when warranted, modify their own views.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

## Presentation of Knowledge and Ideas

### CCSS.ELA-LITERACY.SL.7.5

Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### CCSS.ELA-LITERACY.SL.7.6

Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

# Common Core State Standards for English Language Arts 7th Grade

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## Language

### Knowledge of Language

#### CCSS.ELA-LITERACY.L.7.3.a

Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### Vocabulary Acquisition and Use

#### CCSS.ELA-LITERACY.L.7.4

Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

#### CCSS.ELA-LITERACY.L.7.6

Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

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# Common Core State Standards for English Language Arts 8th Grade

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## Writing

### Text Types and Purposes

#### CCSS.ELA-LITERACY.W.8.2.d

Use precise language and domain-specific vocabulary to inform about or explain the topic.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

#### CCSS.ELA-LITERACY.W.8.3.d

Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### Production and Distribution of Writing

#### CCSS.ELA-LITERACY.W.8.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3.)

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### Research to Build and Present Knowledge

#### CCSS.ELA-LITERACY.W.8.9

Draw evidence from literary or informational texts to support analysis, reflection, and research.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1



# Common Core State Standards for English Language Arts 8th Grade

## Speaking and Listening

### Comprehension and Collaboration

#### CCSS.ELA-LITERACY.SL.8.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

#### CCSS.ELA-LITERACY.SL.8.1.a

Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

#### CCSS.ELA-LITERACY.SL.8.1.b

Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

#### CCSS.ELA-LITERACY.SL.8.1.d

Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

# Common Core State Standards for English Language Arts 8th Grade

## Presentation of Knowledge and Ideas

### CCSS.ELA-LITERACY.SL.8.5

Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
  - 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
  - 2.1    2.2    2.3    2.4    2.5   Game Design
  - 3.1
- 

## Language

### Vocabulary Acquisition and Use

### CCSS.ELA-LITERACY.L.8.6

Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

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# National Consortium for Health Science Education

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## Foundation: Standard 1: Academic Foundation: Understand human anatomy, physiology, common diseases and disorders, and medical math principles.

Human Anatomy and Physiology - Identify basic structures and describe functions of human body systems.

1.1.2 f

Respiratory

- Structures of the respiratory system

- Identify respiratory organs

- Functions of the respiratory system

- Gas exchange

1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8

2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level

2.1    2.2    2.3    2.4    2.5   Game Design

3.1

1.1.2 i

Digestive

- Structures of the digestive system

- Identify digestive organs in sequence

- Differentiate between alimentary and accessory organs

- Functions of the digestive system

- Chemical and mechanical digestion

- Absorption of nutrients

- Excretion of waste

1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8

2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level

2.1    2.2    2.3    2.4    2.5   Game Design

3.1

# National Consortium for Health Science Education

1.1.2 j

Urinary

- Structures of the urinary system
  - Identify urinary organs
  - Identify gross and microscopic anatomy of the kidney
- Functions of the urinary system
  - Process of urine formation
  - Urine composition
  - Homeostatic balance

1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8

2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level

2.1    2.2    2.3    2.4    2.5   Game Design

3.1

## Empowered Learner

1a

Students articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

1c

Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

---

## Digital Citizen

2b

Students engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

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## Knowledge Constructor

3c

Students curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

# International Society for Technology in Education

3d

Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
  - 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
  - 2.1    2.2    2.3    2.4    2.5   Game Design
  - 3.1
- 

## Innovative Designer

4a

Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

4b

Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

4c

Students develop, test and refine prototypes as part of a cyclical design process.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

# International Society for Technology in Education

4d

Students exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
  - 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
  - 2.1    2.2    2.3    2.4    2.5   Game Design
  - 3.1
- 

## Computational Thinker

5c

Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

5d

Students understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
  - 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
  - 2.1    2.2    2.3    2.4    2.5   Game Design
  - 3.1
- 

## Creative Communicator

6b

Students create original works or responsibly repurpose or remix digital resources into new creations.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

## Global Collaborator

7c

Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1



# Standards for Technological and Engineering Literacy

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## Nature and Characteristics of Technology and Engineering

### STEL-1M

Apply creative problem-solving strategies to the improvement of existing devices or processes or the development of new approaches.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
  - 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
  - 2.1    2.2    2.3    2.4    2.5   Game Design
  - 3.1
- 

## Design in Technology and Engineering Education

### STEL-7Q

Apply the technology and engineering design process.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### STEL-7R

Refine design solutions to address criteria and constraints.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### STEL-7S

Create solutions to problems by identifying and applying human factors in design.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### STEL-7U

Evaluate the strengths and weaknesses of different design solutions.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

# Standards for Technological and Engineering Literacy

## STEL-7V

Improve essential skills necessary to successfully design.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

# K12 Computer Science Framework

---

## Collaborating Around Computing

### P2.CAC.1

Cultivate working relationships with individuals possessing diverse perspectives, skills, and personalities.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

### P2.CAC.2

Create team norms, expectations, and equitable workloads to increase efficiency and effectiveness.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

### P2.CAC.3

Solicit and incorporate feedback from, and provide constructive feedback to, team members and other stakeholders.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

---

## Recognizing and Defining Computational Problems

### P3.RDCP.1

Identify complex, interdisciplinary, real-world problems that can be solved computationally.

- 1.1     1.2     1.3     1.4     1.5     1.6     1.7     1.8
- 2.1     2.2     2.3     2.4     2.5    Taking it to the Next Level
- 2.1     2.2     2.3     2.4     2.5    Game Design
- 3.1

# K12 Computer Science Framework

## P3.RDCP.2

Decompose complex real-world problems into manageable subproblems that could integrate existing solutions or procedures

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

## P3.RDCP.3

Evaluate whether it is appropriate and feasible to solve a problem computationally.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

---

## Creating Computational Artifacts

### P5.CCA.2

Create a computational artifact for practical intent, personal expression, or to address a societal issue.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### P5.CCA.3

Modify an existing artifact to improve or customize it.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

# K12 Computer Science Framework

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## Testing and Refining Computational Artifacts

### P6.TRCA.1

Systematically test computational artifacts by considering all scenarios and using test cases.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### P6.TRCA.2

Identify and fix errors using a systematic process.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### P6.TRCA.3

Evaluate and refine a computational artifact multiple times to enhance its performance, reliability, usability, and accessibility.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

---

## Communicating About Computing

### P7.CAC.2

Describe, justify, and document computational processes and solutions using appropriate terminology consistent with the intended audience and purpose.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

# The Computer Science Teachers Association Standards

In Spring 2023 PLTW submitted all necessary documentation required by the Computer Science Teachers Association (CSTA) for a crosswalk review of our Launch and Gateway curricula by the CSTA Standards Review Team. While we anticipate approval and validation by CSTA, the review is pending.

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## Computing Systems

### Devices

#### 2-CS-01

Recommend improvements to the design of computing devices, based on an analysis of how users interact with the devices. [C] CS: Devices [P] Computational Problems (3.3)

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### Hardware & Software

#### 2-CS-02

Design projects that combine hardware and software components to collect and exchange data. [C] CS: Hardware & Software [P] Creating (5.1)

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### Troubleshooting

#### 2-CS-03

Systematically identify and fix problems with computing devices and their components. [C] CS: Troubleshooting [P] Testing (6.2)

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

# The Computer Science Teachers Association Standards

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## Data & Analysis

### Storage

#### 2-DA-07

Represent data using multiple encoding schemes. [C] DA: Storage [P] Abstraction (all)

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### Collection Visualization & Transformation

#### 2-DA-08

Collect data using computational tools and transform the data to make it more useful and reliable. [C] DA: Collection; Visualization & Transformation [P] Testing (6.3)

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

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## Algorithms & Programming

### Algorithms

#### 2-AP-10

Use flowcharts and/or pseudocode to address complex problems as algorithms. [C] AP: Algorithms [P] Abstraction (4.4, 4.1)

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### Variables

#### 2-AP-11

Create clearly named variables that represent different data types and perform operations on their values. [C] AP: Variables [P] Creating (5.1, 5.2)

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

# The Computer Science Teachers Association Standards

## Control

### 2-AP-12

Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals. [C] AP: Control [P] Creating (5.1, 5.2)

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

## Modularity

### 2-AP-13

Decompose problems and subproblems into parts to facilitate the design, implementation, and review of programs. [C] AP: Modularity [P] Computational Problems (3.2)

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### 2-AP-14

Create procedures with parameters to organize code and make it easier to reuse. [C] AP: Modularity [P] Abstraction (4.1, 4.3)

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

## Program Development

### 2-AP-15

Distribute tasks and maintain a project timeline when collaboratively developing computational artifacts. [C] AP: Program Development [P] Collaborating (2.2)

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1



# The Computer Science Teachers Association Standards

## 2-AP-16

Seek and incorporate feedback from team members and users to refine a solution that meets user needs. [C] AP: Program Development [P] Collaborating (2.3), Inclusion (1.1)

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

## 2-AP-17

Incorporate existing code, media, and libraries into original programs, and give attribution. [C] AP: Program Development [P] Abstraction (4.2), Creating (5.2), Communicating (7.3)

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

## 2-AP-18

Systematically test and refine programs using a range of test cases. [C] AP: Program Development [P] Testing (6.1)

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

## 2-AP-19

Document programs in order to make them easier to follow, test, and debug. [C] AP: Program Development [P] Communicating (7.2)

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

# The Computer Science Teachers Association Standards

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## Impacts of Computing

### Culture

#### 2-IC-20

Discuss issues of bias and accessibility in the design of existing technologies. [C] IC: Culture [P]

#### Inclusion (1.2)

1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8

2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level

2.1    2.2    2.3    2.4    2.5   Game Design

3.1

### Social Interactions

#### 2-IC-22

Collaborate with many contributors through strategies such as crowdsourcing or surveys when creating a computational artifact. [C] IC: Social Interactions [P] Collaborating (2.4), Creating (5.2)

1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8

2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level

2.1    2.2    2.3    2.4    2.5   Game Design

3.1

# Next Generation Science Standards

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## Engineering Design

### 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.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### NGSS.MS-ETS1-2

Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### NGSS.MS-ETS1-4

Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

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## Science and Engineering Practices

### Asking Questions and Defining Problems

#### NGSS.P1

Asking questions and defining problems in 6-8 builds on K-5 experiences and progresses to specifying relationships between variables, and clarifying arguments and models.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

# Next Generation Science Standards

## Developing and Using Models

### NGSS.P2

Modeling in 6-8 builds on K-5 experiences and progresses to developing, using, and revising models to describe, test, and predict more abstract phenomena and design systems.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### NGSS.P2

• Develop and/or use a model to generate data to test ideas about phenomena in natural or designed systems, including those representing inputs and outputs, and those at unobservable scales.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

## Planning and Carrying Out Investigations

### NGSS.P3

• Conduct an investigation and/or evaluate and/or revise the experimental design to produce data to serve as the basis for evidence that meet the goals of the investigation.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

### NGSS.P3

• Evaluate the accuracy of various methods for collecting data.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

# Next Generation Science Standards

## Analyzing and Interpreting Data

### NGSS.P4

Analyzing and interpreting data.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

## Constructing Explanations and Designing Solutions

### NGSS.P6

Constructing explanations and designing solutions in 6-8 builds on K-5 experiences and progresses to include constructing explanations and designing solutions supported by multiple sources of evidence consistent with scientific ideas, principles, and theories.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

## Obtaining, Evaluating, and Communicating Information

### NGSS.P8

Obtaining, evaluating, and communicating information in 6-8 builds on K-5 experiences and progresses to evaluating the merit and validity of ideas and methods.

- 1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8
- 2.1    2.2    2.3    2.4    2.5   Taking it to the Next Level
- 2.1    2.2    2.3    2.4    2.5   Game Design
- 3.1

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