

Main Criteria: Forward Education
Secondary Criteria: Common Core State Standards
Subjects: Mathematics, Science, Technology Education
Grades: 9, 10, Key Stage 3, Key Stage 4

Forward Education

Replanting our Forests with Automated Tree Seeders

Common Core State Standards
Mathematics
Grade 9 - Adopted: 2010

STRAND / DOMAIN		Mathematical Practices
CATEGORY / CLUSTER	CCSS.Math.Practice.MP1	Make sense of problems and persevere in solving them.
CATEGORY / CLUSTER	CCSS.Math.Practice.MP2	Reason abstractly and quantitatively.
CATEGORY / CLUSTER	CCSS.Math.Practice.MP3	Construct viable arguments and critique the reasoning of others.
CATEGORY / CLUSTER	CCSS.Math.Practice.MP4	Model with mathematics.
CATEGORY / CLUSTER	CCSS.Math.Practice.MP6	Attend to precision.
CATEGORY / CLUSTER	CCSS.Math.Practice.MP7	Look for and make use of structure.
CATEGORY / CLUSTER	CCSS.Math.Practice.MP8	Look for and express regularity in repeated reasoning.
STRAND / DOMAIN		Functions
CATEGORY / CLUSTER	CCSS.Math.Content.HSF-IF	Interpreting Functions
STANDARD	CCSS.Math.Content.HSF-IF.B	Interpret functions that arise in applications in terms of the context.

EXPECTATION	CCSS.Math.Content.HSF-IF.B.6	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.
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Common Core State Standards

Mathematics

Grade 10 - Adopted: 2010

STRAND / DOMAIN		Mathematical Practices
CATEGORY / CLUSTER	CCSS.Math.Practice.MP1	Make sense of problems and persevere in solving them.
CATEGORY / CLUSTER	CCSS.Math.Practice.MP2	Reason abstractly and quantitatively.
CATEGORY / CLUSTER	CCSS.Math.Practice.MP3	Construct viable arguments and critique the reasoning of others.
CATEGORY / CLUSTER	CCSS.Math.Practice.MP4	Model with mathematics.
CATEGORY / CLUSTER	CCSS.Math.Practice.MP6	Attend to precision.
CATEGORY / CLUSTER	CCSS.Math.Practice.MP7	Look for and make use of structure.
CATEGORY / CLUSTER	CCSS.Math.Practice.MP8	Look for and express regularity in repeated reasoning.

STRAND / DOMAIN		Functions
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EXPECTATION	CCSS.Math.Content.HSF-IF.B.6	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.
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Common Core State Standards

Science

Grade 9 - Adopted: 2010

STRAND / DOMAIN	CCSS.ELA-Literacy.RST.9-10	Reading Standards for Literacy in Science and Technical Subjects
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CATEGORY / CLUSTER		Key Ideas and Details
STANDARD	CCSS.EL A- Literacy.R ST.9-10.2	Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.
STANDARD	CCSS.EL A- Literacy.R ST.9-10.3	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks attending to special cases or exceptions defined in the text.
STRAND / DOMAIN	CCSS.EL A- Literacy. RST.9-10	Reading Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Craft and Structure
STANDARD	CCSS.EL A- Literacy.R ST.9-10.4	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 9-10 texts and topics.
STANDARD	CCSS.EL A- Literacy.R ST.9-10.5	Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).
STRAND / DOMAIN	CCSS.EL A- Literacy. RST.9-10	Reading Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Integration of Knowledge and Ideas
STANDARD	CCSS.EL A- Literacy.R ST.9-10.9	Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.
STRAND / DOMAIN	CCSS.EL A- Literacy. RST.9-10	Reading Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Range of Reading and Level of Text Complexity
STANDARD	CCSS.EL A- Literacy.R ST.9- 10.10	By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.
STRAND / DOMAIN	CCSS.EL A- Literacy. WHST.9- 10	Writing Standards for Literacy in Science and Technical Subjects

CATEGORY / CLUSTER		Text Types and Purposes
STANDARD	CCSS.E LA- Literacy. WHST.9- 10.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.

EXPECTATION CCSS.EL Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.
 A-
 Literacy.W
 HST.9-
 10.2.d

STRAND / DOMAIN	CCSS.EL A- Literacy. WHST.9- 10	Writing Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Production and Distribution of Writing

STANDARD CCSS.EL Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
 A-
 Literacy.
 WHST.9-
 10.4

STANDARD CCSS.EL Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
 A-
 Literacy.
 WHST.9-
 10.6

**Common Core State Standards
 Science
 Grade 10 - Adopted: 2010**

STRAND / DOMAIN	CCSS.EL A- Literacy. RST.9-10	Reading Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Key Ideas and Details

STANDARD CCSS.EL Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.
 A-
 Literacy.R
 ST.9-10.2

STANDARD CCSS.EL Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks attending to special cases or exceptions defined in the text.
 A-
 Literacy.R
 ST.9-10.3

STRAND / DOMAIN	CCSS.EL A- Literacy. RST.9-10	Reading Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Craft and Structure

STANDARD	CCSS.EL A- Literacy.R ST.9-10.4	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 9-10 texts and topics.
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STANDARD	CCSS.EL A- Literacy.R ST.9-10.5	Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).
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STRAND / DOMAIN	CCSS.EL A- Literacy. RST.9-10	Reading Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Integration of Knowledge and Ideas

STANDARD	CCSS.EL A- Literacy.R ST.9-10.9	Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.
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STRAND / DOMAIN	CCSS.EL A- Literacy. RST.9-10	Reading Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Range of Reading and Level of Text Complexity

STANDARD	CCSS.EL A- Literacy.R ST.9- 10.10	By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.
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STRAND / DOMAIN	CCSS.EL A- Literacy. WHST.9- 10	Writing Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Text Types and Purposes
STANDARD	CCSS.E LA- Literacy. WHST.9- 10.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.

EXPECTATION	CCSS.EL A- Literacy.W HST.9- 10.2.d	Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.
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STRAND / DOMAIN	CCSS.EL A- Literacy. WHST.9- 10	Writing Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Production and Distribution of Writing

STANDARD	CCSS.EL A- Literacy. WHST.9- 10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
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STANDARD	CCSS.EL A- Literacy. WHST.9- 10.6	Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
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