

Main Criteria: Forward Education
Secondary Criteria: Common Core State Standards
Subjects: Mathematics, Science, Technology Education
Grades: 5, 6, Key Stage 2

Forward Education

Smart Farming with Automated Watering

Common Core State Standards
Mathematics
 Grade 5 - 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.MP5	Use appropriate tools strategically.
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.

Common Core State Standards
Mathematics
 Grade 6 - Adopted: 2010

STRAND / DOMAIN		Mathematical Practices
CATEGORY / CLUSTER	CCSS.Math.Practice.MP1	Make sense of problems and persevere in solving them.

CATEGORY / CLUSTER	CCSS.M ath.Practi ce.MP2	Reason abstractly and quantitatively.
CATEGORY / CLUSTER	CCSS.M ath.Practi ce.MP3	Construct viable arguments and critique the reasoning of others.
CATEGORY / CLUSTER	CCSS.M ath.Practi ce.MP4	Model with mathematics.
CATEGORY / CLUSTER	CCSS.M ath.Practi ce.MP5	Use appropriate tools strategically.
CATEGORY / CLUSTER	CCSS.M ath.Practi ce.MP7	Look for and make use of structure.

STRAND / DOMAIN		Ratios and Proportional Relationships
CATEGORY / CLUSTER	CCSS.M ath.Cont ent.6.RP. A	Understand ratio concepts and use ratio reasoning to solve problems.
STANDARD	CCSS.M ath.Cont ent.6.RP .A.3	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.

EXPECTATION CCSS.M
ath.Conte
nt.6.RP.A.
3.a Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.

STRAND / DOMAIN		Expressions and Equations
CATEGORY / CLUSTER	CCSS.M ath.Cont ent.6.EE. B	Reason about and solve one-variable equations and inequalities.

STANDARD CCSS.M
ath.Conte
nt.6.EE.B.
5 Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.

Common Core State Standards

Science

Grade 6 - Adopted: 2010

STRAND / DOMAIN	CCSS.EL A- Literacy. RST.6-8	Reading Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Key Ideas and Details

STANDARD	CCSS.EL A- Literacy.R ST.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.
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STANDARD	CCSS.EL A- Literacy.R ST.6-8.3	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
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STRAND / DOMAIN	CCSS.EL A- Literacy. RST.6-8	Reading Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Craft and Structure

STANDARD	CCSS.EL A- Literacy.R ST.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.
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STANDARD	CCSS.EL A- Literacy.R ST.6-8.5	Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.
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STRAND / DOMAIN	CCSS.EL A- Literacy. RST.6-8	Reading Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Integration of Knowledge and Ideas

STANDARD	CCSS.EL A- Literacy.R ST.6-8.7	Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).
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STANDARD	CCSS.EL A- Literacy.R ST.6-8.9	Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.
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STRAND / DOMAIN	CCSS.EL A- Literacy. RST.6-8	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.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.
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STRAND / DOMAIN	CCSS.EL A-Literacy. WHST.6-8	Writing Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Text Types and Purposes
STANDARD	CCSS.E LA-Literacy. WHST.6-8.2	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 inform about or explain the topic.
A-
Literacy.W
HST.6-
8.2.d

STRAND / DOMAIN	CCSS.EL A-Literacy. WHST.6-8	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.6-
8.4

STANDARD CCSS.EL Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.
A-
Literacy.
WHST.6-
8.6