

**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.M ath.Practi ce.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.MP6	Attend to precision.
CATEGORY / CLUSTER	CCSS.M ath.Practi ce.MP7	Look for and make use of structure.

#### Common Core State Standards

##### Mathematics

Grade 6 - Adopted: 2010

STRAND / DOMAIN		Mathematical Practices
CATEGORY / CLUSTER	CCSS.M ath.Practi ce.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.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.MP7	Look for and make use of structure.

<b>STRAND / DOMAIN</b>		<b>Ratios and Proportional Relationships</b>
<b>CATEGORY / CLUSTER</b>	CCSS.Math.Content.6.RP.A	<b>Understand ratio concepts and use ratio reasoning to solve problems.</b>
<b>STANDARD</b>	CCSS.Math.Content.6.RP.A.3	<b>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.</b>

EXPECTATION    CCSS.Math.Content.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.

<b>STRAND / DOMAIN</b>		<b>Expressions and Equations</b>
<b>CATEGORY / CLUSTER</b>	CCSS.Math.Content.6.EE.B	<b>Reason about and solve one-variable equations and inequalities.</b>

STANDARD    CCSS.Math.Content.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**

<b>STRAND / DOMAIN</b>	CCSS.ELA-Literacy.RST.6-8	<b>Reading Standards for Literacy in Science and Technical Subjects</b>
<b>CATEGORY / CLUSTER</b>		<b>Key Ideas and Details</b>

STANDARD    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.

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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<b>STRAND / DOMAIN</b>	<b>CCSS.EL A- Literacy. RST .6-8</b>	<b>Reading Standards for Literacy in Science and Technical Subjects</b>
<b>CATEGORY / CLUSTER</b>		<b>Craft and Structure</b>

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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<b>STRAND / DOMAIN</b>	<b>CCSS.EL A- Literacy. RST .6-8</b>	<b>Reading Standards for Literacy in Science and Technical Subjects</b>
<b>CATEGORY / CLUSTER</b>		<b>Integration of Knowledge and Ideas</b>

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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<b>STRAND / DOMAIN</b>	<b>CCSS.EL A- Literacy. RST .6-8</b>	<b>Reading Standards for Literacy in Science and Technical Subjects</b>
<b>CATEGORY / CLUSTER</b>		<b>Range of Reading and Level of Text Complexity</b>

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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<b>STRAND / DOMAIN</b>	<b>CCSS.EL A- Literacy. WHST .6-8</b>	<b>Writing Standards for Literacy in Science and Technical Subjects</b>
<b>CATEGORY / CLUSTER</b>		<b>Text Types and Purposes</b>

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.
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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
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CATEGORY / CLUSTER		Production and Distribution of Writing
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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