

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

## Forward Education

### How Wind Turbines Capture Kinetic Energy

#### Common Core State Standards

##### Mathematics

Grade 5 - Adopted: 2010

STRAND / DOMAIN		Mathematical Practices
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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.

STRAND / DOMAIN		Measurement and Data
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CATEGORY / CLUSTER	CCSS.Math.Content.5.MD.B	Represent and interpret data.
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STANDARD	CCSS.Math.Content.5.MD.B.2	Make a line plot to display a data set of measurements in fractions of a unit ( $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{8}$ ). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.
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#### Common Core State Standards

##### Mathematics

Grade 6 - Adopted: 2010

STRAND / DOMAIN		Mathematical Practices
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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.

**Common Core State Standards  
Science  
Grade 6 - Adopted: 2010**

<b>STRAND / DOMAIN</b>	<b>CCSS.ELA-Literacy.RST.6-8</b>	<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.ELA-Literacy.RST.6-8.3	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

<b>STRAND / DOMAIN</b>	<b>CCSS.ELA-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.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.
STANDARD	CCSS.ELA-Literacy.RST.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.

<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.RST.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.

<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.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.

<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>
<b>STANDARD</b>	<b>CCSS.E LA-Literacy.WHST.6-8.2</b>	<b>Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</b>

EXPECTATION CCSS.EL A-Literacy.WHST.6-8.2.d Use precise language and domain-specific vocabulary to inform about or explain the topic.

<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>Production and Distribution of Writing</b>

STANDARD CCSS.EL A-Literacy.WHST.6-8.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

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