

Main Criteria: Forward Education
Secondary Criteria: Next Generation Science Standards (NGSS)
Subjects: Mathematics, Science, Technology Education
Grades: 3, 4, Key Stage 1, Key Stage 2

Forward Education

Powering the Future with Wind Energy

Next Generation Science Standards (NGSS)

Science

Grade 3 - Adopted: 2013

STRAND	NGSS.3-PS	PHYSICAL SCIENCE
TITLE	3-PS2	Motion and Stability: Forces and Interactions
		Students who demonstrate understanding can:

PERFORMANCE EXPECTATION 3-PS2-2 Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.

STRAND	NGSS.3-5-ETS	ENGINEERING DESIGN
TITLE	3-5-ETS1	Engineering Design
		Students who demonstrate understanding can:

PERFORMANCE EXPECTATION 3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

PERFORMANCE EXPECTATION 3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

PERFORMANCE EXPECTATION 3-5-ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

Next Generation Science Standards (NGSS)

Science

Grade 4 - Adopted: 2013

STRAND	NGSS.4-PS	PHYSICAL SCIENCE
TITLE	4-PS3	Energy
		Students who demonstrate understanding can:

PERFORMANCE EXPECTATION 4-PS3-4 Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.

STRAND	NGSS.4-ESS	EARTH AND SPACE SCIENCE
TITLE	4-ESS3	Earth and Human Activity
		Students who demonstrate understanding can:

PERFORMANCE EXPECTATION 4-ESS3-1 Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.

STRAND	NGSS.3-5-ETS	ENGINEERING DESIGN
TITLE	3-5-ETS1	Engineering Design
		Students who demonstrate understanding can:

PERFORMANCE EXPECTATION 3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

PERFORMANCE EXPECTATION 3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

PERFORMANCE EXPECTATION 3-5-ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.