Which Sparks support which standards

A filled cell means the Spark's educator guide lists that standard. Grade starting points: Art Machines (Grades K through 5); Blendies (Pre-K through grade 8); Crankie Contraptions (Grades 1 through 8); Drawbots (Grades 2 through 8); Electric Vehicles (Grades 3 through 8); Eyelusions (Grades 2 through 8); Flying Machines (Grades 1 through 8); Hypnotizers (Grades K through 5); Linkages (Grades K through 8); Mazes (Grades K through 8); Monster Claws (Grades 3 through 8); Monster Mouths (Grades K through 5); Scene Machines (Grades 2 through 8); Screen Machines (Grades 1 through 8); Straw Structures (Pre-K through grade 8); Strawbots (Grades 2 through 8); Wind-Up Vehicles (Grades 2 through 8).

CODE	WHAT IT COVERS	Art Machines	Blendies	Crankie Contraptions	Drawbots	Electric Vehicles	Eyelusions	Flying Machines	Hypnotizers	Linkages	Mazes	Monster Claws	Monster Mouths	Scene Machines	Screen Machines	Straw Structures	Strawbots	Wind-Up Vehicles	SPARKS
NEXT GENERATION SCIENCE STANDARDS																			
3-5-ETS1-1	Define a simple design problem with criteria for success and constraints	✓			✓											✓			3
3-5-ETS1-2	Engineering Design: 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			✓										✓					2
3-5-ETS1-3	Plan and carry out fair tests to identify failure points	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	16
3-PS2-1	Forces and Interactions: Cause and Effect		✓				✓	✓		✓	✓	✓	✓	✓			✓	✓	10
4-PS3-1	Energy: Speed and Kinetic Energy		✓						✓										2
4-PS3-2	Energy Transfer: Make observations about energy transfer					✓													1
K-2-ETS1-1	Ask questions, make observations, and gather information about a situation people want to change													✓					1
K-2-ETS1-2	Engineering Design: Develop a simple sketch, drawing, or physical model	✓	✓	✓	✓		✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	14
K-2-ETS1-3	Analyze data from tests of two objects to compare strengths and weaknesses								✓							✓			2
K-PS2-1	Motion and Stability: Forces and Interactions	✓	✓	✓	✓		✓		✓	✓	✓		✓	✓			✓	✓	12
K-PS3-1	Energy and Motion							✓											1
MS-ETS1-1	Define the criteria and constraints of a design problem															✓			1
MS-ETS1-2	Engineering Design: Evaluate competing design solutions			✓	✓		✓	✓		✓		✓	✓			✓	✓		9
MS-ETS1-3	Analyze data to compare design solutions					✓					✓			✓	✓			✓	5
MS-ETS1-4	Engineering Design: Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process			✓					✓		✓				✓				4
MS-LS1-8	Gather and synthesize information that sensory receptors send messages to the brain		✓				✓												2
MS-PS2-2	Motion and Stability: Effect of Forces on Motion		✓																1

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MS-PS3-5	Energy Transfer: Construct an explanation of energy transfer				✓	✓		✓	✓	✓		✓	✓	✓			✓	✓	10
COMMON CORE STATE STANDARDS																			
1.G.A.2	Compose Two-Dimensional and Three-Dimensional Shapes				✓				✓										2
1.G.A.3	Partition shapes into equal shares		✓																1
1.MD.A.1	Order three objects by length; compare the lengths of two objects indirectly													✓					1
1.OA.A.1	Use addition and subtraction to solve one- and two-step word problems			✓															1
2.G.A.1	Identify shapes by their attributes							✓											1
2.MD.A.1	Measure the length of an object using appropriate tools							✓					✓					✓	3
3.G.A.1	Understand that shapes in different categories may share attributes						✓								✓				2
3.G.A.2	Partition shapes into parts with equal areas								✓										1
3.MD.B.3	Draw a scaled bar graph to represent a data set and solve problems using it		✓																1
3.MD.B.4	Generate measurement data by measuring lengths	✓		✓	✓					✓		✓	✓		✓	✓	✓	✓	10
4.G.A.1	Draw and identify lines and angles, and classify shapes					✓											✓		2
4.G.A.2	Classify two-dimensional figures based on their lines and angles					✓													1
4.G.A.3	Recognize a line of symmetry for a two-dimensional figure		✓				✓	✓	✓										4
4.MD.A.2	Use measurement to solve problems involving distances	✓						✓										✓	3
4.MD.A.3	Apply Area and Perimeter Formulas				✓									✓					2
4.MD.C.5	Recognize angles as geometric shapes formed wherever two rays share a common endpoint, and understand concepts of angle measurement										✓		✓						2
4.OA.C.5	Generate and analyze patterns			✓						✓	✓	✓	✓	✓					6
6.EE.A.2	Write, read, and evaluate expressions											✓							1
6.EE.C.9	Represent and analyze quantitative relationships between dependent and independent variables										✓						✓		2
6.G.A.1	Find the area of triangles and other shapes by composing and decomposing							✓						✓	✓				3
6.RP.A.1	Understand ratio concepts and use ratio reasoning			✓		✓			✓	✓		✓				✓	✓		7
6.RP.A.3	Use ratio and rate reasoning to solve real-world problems				✓						✓							✓	3
6.SP.B.5	Summarize numerical data sets in relation to their context		✓									✓							2
7.G.A.1	Solve problems involving scale drawings of geometric figures			✓		✓													2
7.G.A.2	Draw Geometric Shapes with Given Conditions				✓					✓									2

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7.G.B.4	Know the formulas for the area and circumference of a circle					✓		✓					✓						3
7.G.B.6	Solve real-world problems involving area of two-dimensional objects composed of triangles, quadrilaterals, and polygons													✓					1
7.RP.A.2	Recognize and represent proportional relationships between quantities				✓		✓						✓						3
7.SP.B.4	Use measures of center to draw informal comparative inferences about two populations																✓		1
8.G.A.1	Verify experimentally the properties of rotations, reflections, and translations		✓																1
8.G.C.9	Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve problems										✓								1
K.CC.B.5	Count to answer "how many?"														✓				1
K.G.A.1	Describe objects using names of shapes and relative positions	✓				✓			✓	✓		✓	✓	✓	✓	✓	✓		10
K.G.A.2	Correctly name shapes regardless of orientations or overall size							✓											1
K.G.B.4	Analyze and compare two- and three-dimensional shapes		✓																1
K.MD.A.1	Describe measurable attributes of objects	✓		✓	✓		✓		✓	✓		✓				✓			8
RI.3-5.3	Explain relationships between concepts in a text		✓			✓			✓	✓	✓	✓	✓		✓	✓	✓		10
RI.3-5.7	Interpret information from diagrams and text	✓			✓	✓		✓	✓										5
RI.K-2.7	Use illustrations and words in a text to describe key ideas	✓	✓		✓		✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	13
RL.3-5.5	Explain how chapters, scenes, or stanzas provide the overall structure of a story			✓															1
RL.6-8.5	Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of theme			✓															1
RL.K-2.2	Retell stories, including key details, and demonstrate understanding of their central message			✓										✓					2
RST.6-8.3	Follow a multistep procedure when carrying out experiments		✓			✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	12
RST.6-8.7	Integrate Quantitative and Technical Information				✓			✓											2
SL.3-5.1	Engage effectively in collaborative discussions					✓			✓		✓								3
SL.3-5.4	Report on a topic with descriptive details		✓											✓	✓				3
SL.3-5.5	Include visual displays in presentations to emphasize main ideas			✓															1
SL.6-8.1	Engage in collaborative discussions with diverse partners		✓			✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	12
SL.6-8.5	Integrate multimedia and visual displays in presentations to clarify information													✓					1

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SL.K-2.1	Participate in collaborative conversations	✓	✓		✓		✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	13
SL.K-2.5	Add drawings to provide additional detail														✓				1
W.3-5.2	Write informative/explanatory texts	✓			✓		✓	✓				✓					✓	✓	7
W.3-5.3	Write narratives to develop real or imagined experiences								✓			✓	✓	✓					4
W.6-8.1	Write Arguments with Claims, Reasons, and Evidence				✓			✓											2
W.6-8.3	Write narratives to develop real or imagined experiences using effective technique, relevant descriptive details, and well-structured event sequences			✓										✓					2
W.K-2.3	Write narratives in which they recount a well-elaborated event or short sequence of events			✓															1