Aeronautics Educator Guide			
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Grade 2			
Activity/Lesson	**State**	**Standards**	
Air Engines (12-16)	AR	SCI.2.NS.1.2.2	Develop questions that guide scientific inquiry
Air Engines (12-16)	AR	SCI.2.NS.1.2.5	Collect measurable empirical evidence in teams and as individuals
Air Engines (12-16)	AR	SCI.2.PS.6.2.1	Investigate the relationship between force and motion
Rotor Motor (69-75)	AR	SCI.2.NS.1.2.1.d	Communicate observations orally, in writing, and in graphic organizers (bar graphs)
Rotor Motor (69-75)	AR	SCI.2.NS.1.2.3.a	Conduct scientific investigations individually and in teams (lab activities)
Rotor Motor (69-75)	AR	SCI.2.NS.1.2.3.b	Conduct scientific investigations individually and in teams (field studies)
Rotor Motor (69-75)	AR	SCI.2.PS.6.2.1	Investigate the relationship between force and motion
Flight: Interdisciplinary Learning Activities (76-79)	AR	SCI.2.NS.1.2.3.a	Conduct scientific investigations individually and in teams (lab activities)
Flight: Interdisciplinary Learning Activities (76-79)	AR	SCI.2.NS.1.2.3.b	Conduct scientific investigations individually and in teams (field studies)
Where is North? The Compass Can Tell Us (87-90)	AR	SCI.2.NS.1.2.3.a	Conduct scientific investigations individually and in teams (lab activities)
Where is North? The Compass Can Tell Us (87-90)	AR	SCI.2.NS.1.2.3.b	Conduct scientific investigations individually and in teams (field studies)
We Can Fly, You and I: Interdisciplinary Learning (107-108)	AR	SCI.2.ESS.8.2.6	Demonstrate safety procedures related to severe weather
Dunked Napkin (17-22)	AR	SCI.2.NS.1.2.2	Develop questions that guide scientific inquiry
Dunked Napkin (17-22)	AR	SCI.2.NS.1.2.3.a	Conduct scientific investigations individually and in teams (lab activities)
Dunked Napkin (17-22)	AR	SCI.2.NS.1.2.3.b	Conduct scientific investigations individually and in teams (field studies)
Paper Bag Mask (23-28)	AR	SCI.2.NS.1.2.2	Develop questions that guide scientific inquiry
Paper Bag Mask (23-28)	AR	SCI.2.NS.1.2.3.a	Conduct scientific investigations individually and in teams (lab activities)
Wind in Your Socks) (29-35)	AR	SCI.2.NS.1.2.2	Develop questions that guide scientific inquiry
Wind in Your Socks) (29-35)	AR	SCI.2.NS.1.2.3.a	Conduct scientific investigations individually and in teams (lab activities)
Wind in Your Socks) (29-35)	AR	SCI.2.NS.1.2.4	Estimate and measure length and temperature using International System of Units (SI)

Wind in Your Socks) (29-35)	AR	SCI.2.NS.1.2.7	Use age appropriate equipment and tools in scientific investigations (e.g., balances, hand lenses, rulers, and thermometers)
Air: Interdisciplinary Learning Activities (36-39)	AR	SCI.2.ESS.8.2.8	Predict weather based on cloud type
Right Flight (52-59)	AR	SCI.2.NS.1.2.6	Make predictions in teams and as individuals based upon empirical evidence
Delta Wing Glider (60-68)	AR	SCI.2.NS.1.2.6	Make predictions in teams and as individuals based upon empirical evidence
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Grade 3			
Activity/Lesson	**State**	**Standards**	
Air Engines (12-16)	AR	SCI.3.NS.1.3.2	Develop questions that guide scientific inquiry
Air Engines (12-16)	AR	SCI.3.NS.1.3.6	Collect and analyze measurable empirical evidence as a team and/or as individuals
Rotor Motor (69-75)	AR	SCI.3.NS.1.3.1.d	Communicate observations orally, in writing, and in graphic organizers (bar graphs)
Rotor Motor (69-75)	AR	SCI.3.NS.1.3.3.a	Conduct scientific investigations individually and in teams (lab activities)
Rotor Motor (69-75)	AR	SCI.3.NS.1.3.3.b	Conduct scientific investigations individually and in teams (field studies)
Flight: Interdisciplinary Learning Activities (76-79)	AR	SCI.3.NS.1.3.3.a	Conduct scientific investigations individually and in teams (lab activities)
Flight: Interdisciplinary Learning Activities (76-79)	AR	SCI.3.NS.1.3.3.b	Conduct scientific investigations individually and in teams (field studies)
Flight: Interdisciplinary Learning Activities (76-79)	AR	SCI.3.NS.1.3.5	Estimate and measure length, mass, temperature, and elapsed time using International System of Units (SI)
Making Time Fly (80-86)	AR	SCI.3.NS.1.3.4	Communicate the results of scientific investigations (e.g., age-appropriate graphs, charts, and writings)
Where is North? The Compass Can Tell Us (87-90)	AR	SCI.3.NS.1.3.3.a	Conduct scientific investigations individually and in teams (lab activities)
Where is North? The Compass Can Tell Us (87-90)	AR	SCI.3.NS.1.3.3.b	Conduct scientific investigations individually and in teams (field studies)
Where is North? The Compass Can Tell Us (87-90)	AR	SCI.3.PS.7.3.5	Describe the effect of distance on attraction and repulsion
Plan to Fly There (97-106)	AR	SCI.3.NS.1.3.5	Estimate and measure length, mass, temperature, and elapsed time using International System of Units (SI)

We Can Fly, You and I: Interdisciplinary Learning (107-108)	AR	SCI.3.NS.1.3.5	Estimate and measure length, mass, temperature, and elapsed time using International System of Units (SI)
We Can Fly, You and I: Interdisciplinary Learning (107-108)	AR	SCI.3.ESS.8.3.9	Demonstrate safety procedures related to severe weather
Dunked Napkin (17-22)	AR	SCI.3.NS.1.3.2	Develop questions that guide scientific inquiry
Dunked Napkin (17-22)	AR	SCI.3.NS.1.3.3.a	Conduct scientific investigations individually and in teams (lab activities)
Dunked Napkin (17-22)	AR	SCI.3.NS.1.3.3.b	Conduct scientific investigations individually and in teams (field studies)
Dunked Napkin (17-22)	AR	SCI.3.NS.1.3.4	Communicate the results of scientific investigations (e.g., age-appropriate graphs, charts, and writings)
Dunked Napkin (17-22)	AR	SCI.3.NS.1.3.7	Make and explain predictions based on prior knowledge
Dunked Napkin (17-22)	AR	SCI.3.NS.1.3.8	Use simple equipment, age appropriate tools, technology, and mathematics in scientific investigations (e.g., balances, hand lenses, microscopes, rulers, thermometers, calculators, computers)
Paper Bag Mask (23-28)	AR	SCI.3.NS.1.3.2	Develop questions that guide scientific inquiry
Paper Bag Mask (23-28)	AR	SCI.3.NS.1.3.3.a	Conduct scientific investigations individually and in teams (lab activities)
Paper Bag Mask (23-28)	AR	SCI.3.NS.1.3.7	Make and explain predictions based on prior knowledge
Wind in Your Socks) (29-35)	AR	SCI.3.NS.1.3.2	Develop questions that guide scientific inquiry
Wind in Your Socks) (29-35)	AR	SCI.3.NS.1.3.3.a	Conduct scientific investigations individually and in teams (lab activities)
Wind in Your Socks) (29-35)	AR	SCI.3.NS.1.3.5	Estimate and measure length, mass, temperature, and elapsed time using International System of Units (SI)
Wind in Your Socks) (29-35)	AR	SCI.3.NS.1.3.8	Use simple equipment, age appropriate tools, technology, and mathematics in scientific investigations (e.g., balances, hand lenses, microscopes, rulers, thermometers, calculators, computers)
Air: Interdisciplinary Learning Activities (36-39)	AR	SCI.3.PS.7.3.3.h	Identify methods of producing electricity relative to Arkansas (wind)
Right Flight (52-59)	AR	SCI.3.NS.1.3.7	Make and explain predictions based on prior knowledge
Delta Wing Glider (60-68)	AR	SCI.3.NS.1.3.7	Make and explain predictions based on prior knowledge
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Activity/Lesson	State	Standards	
Air Engines (12-16)	AR	SCI.4.NS.1.4.2	Refine questions that guide scientific inquiry
Air Engines (12-16)	AR	SCI.4.NS.1.4.7	Collect and interpret measurable empirical evidence in teams and as individuals
Air Engines (12-16)	AR	SCI.4.NS.1.4.8	Develop a hypothesis based on prior knowledge and observations
Rotor Motor (69-75)	AR	SCI.4.NS.1.4.1.d	Communicate observations orally, in writing, and in graphic organizers (bar graphs)
Rotor Motor (69-75)	AR	SCI.4.NS.1.4.1.f	Communicate observations orally, in writing, and in graphic organizers (line graphs)
Rotor Motor (69-75)	AR	SCI.4.NS.1.4.3.a	Conduct scientific investigations individually and in teams (lab activities)
Rotor Motor (69-75)	AR	SCI.4.NS.1.4.3.b	Conduct scientific investigations individually and in teams (field studies)
Rotor Motor (69-75)	AR	SCI.4.NS.1.4.9	Identify variables that affect investigations
Flight: Interdisciplinary Learning Activities (76-79)	AR	SCI.4.NS.1.4.3.a	Conduct scientific investigations individually and in teams (lab activities)
Flight: Interdisciplinary Learning Activities (76-79)	AR	SCI.4.NS.1.4.3.b	Conduct scientific investigations individually and in teams (field studies)
Flight: Interdisciplinary Learning Activities (76-79)	AR	SCI.4.NS.1.4.6	Estimate and measure length, mass, temperature, capacity/volume, and elapsed time using International System of Units (SI)
Making Time Fly (80-86)	AR	SCI.4.NS.1.4.5	Communicate the designs, procedures, and results of scientific investigations (e.g., age-appropriate graphs, charts, and writings)
Where is North? The Compass Can Tell Us (87-90)	AR	SCI.4.NS.1.4.3.a	Conduct scientific investigations individually and in teams (lab activities)
Where is North? The Compass Can Tell Us (87-90)	AR	SCI.4.NS.1.4.3.b	Conduct scientific investigations individually and in teams (field studies)
Plan to Fly There (97-106)	AR	SCI.4.NS.1.4.6	Estimate and measure length, mass, temperature, capacity/volume, and elapsed time using International System of Units (SI)
We Can Fly, You and I: Interdisciplinary Learning (107-108)	AR	SCI.4.NS.1.4.6	Estimate and measure length, mass, temperature, capacity/volume, and elapsed time using International System of Units (SI)
Dunked Napkin (17-22)	AR	SCI.4.NS.1.4.2	Refine questions that guide scientific inquiry
Dunked Napkin (17-22)	AR	SCI.4.NS.1.4.3.a	Conduct scientific investigations individually and in teams (lab activities)
Dunked Napkin (17-22)	AR	SCI.4.NS.1.4.3.b	Conduct scientific investigations individually and in teams (field studies)
Dunked Napkin (17-22)	AR	SCI.4.NS.1.4.8	Develop a hypothesis based on prior knowledge and observations
Dunked Napkin (17-22)	AR	SCI.4.NS.1.4.9	Identify variables that affect investigations

Dunked Napkin (17-22)	AR	SCI.4.NS.1.4.11	Generate conclusions based on evidence
Paper Bag Mask (23-28)	AR	SCI.4.NS.1.4.2	Refine questions that guide scientific inquiry
Paper Bag Mask (23-28)	AR	SCI.4.NS.1.4.3.a	Conduct scientific investigations individually and in teams (lab activities)
Wind in Your Socks) (29-35)	AR	SCI.4.NS.1.4.2	Refine questions that guide scientific inquiry
Wind in Your Socks) (29-35)	AR	SCI.4.NS.1.4.3.a	Conduct scientific investigations individually and in teams (lab activities)
Wind in Your Socks) (29-35)	AR	SCI.4.NS.1.4.6	Estimate and measure length, mass, temperature, capacity/volume, and elapsed time using International System of Units (SI)
Wind in Your Socks) (29-35)	AR	SCI.4.NS.1.4.8	Develop a hypothesis based on prior knowledge and observations
Wind in Your Socks) (29-35)	AR	SCI.4.NS.1.4.13	Use simple equipment, age appropriate tools, technology, and mathematics in scientific investigations (e.g., balances, hand lenses, microscopes, rulers, thermometers, calculators, computers)
Air: Interdisciplinary Learning Activities (36-39)	AR	SCI.4.NS.1.4.5	Communicate the designs, procedures, and results of scientific investigations (e.g., age-appropriate graphs, charts, and writings)
Sled Kite (44-51)	AR	SCI.4.NS.1.4.9	Identify variables that affect investigations