

Courage to Soar

National Standards

Grades 3 – 5 Science

Source: National Standards Science Literacy 2008

Lesson/Activity	Grades 3 – 5 - Science Standards
Kite Flight	1B/E2b One reason for following directions carefully and for keeping records of one's work is to provide information on what might have caused differences in investigations.
Kite Flight	3A/E3 Measuring instruments can be used to gather accurate information for making scientific comparisons of objects and events and for designing and constructing things that will work properly.
Kite Flight	4F/E1bc The greater the force is, the greater the change in motion will be. The more massive an object is, the less effect a given force will have.
Kite Flight	4F/E2 How fast things move differs greatly. Some things are so slow that their journey takes a long time; others move too fast for people to even see them.
The Flight Timeline	1B/E1 Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
The Flight Timeline	1B/E2b One reason for following directions carefully and for keeping records of one's work is to provide information on what might have caused differences in investigations.
The Flight Timeline	3A/E1 Throughout all of history, people everywhere have invented and used tools. Most tools of today are different from those of the past but many are modifications of very ancient tools.
The Flight Timeline	3A/E3 Measuring instruments can be used to gather accurate information for making scientific comparisons of objects and events and for designing and constructing things that will work properly.
The Flight Timeline	4F/E1a Changes in speed or direction of motion are caused by forces.
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Aviation Pioneers	1B/E1 Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
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Having the Right Stuff	1B/E1 Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
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Having the Right Stuff	4F/E2 How fast things move differs greatly. Some things are so slow that their journey takes a long time; others move too fast for people to even see them.
Flying a Styrofoam Plane	1B/E1 Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.

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Looking for Answers:A research project	1B/E1 Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
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The Matter of Air	1B/E1 Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
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The Four Forces of Flight	1B/E1 Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
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Controlling the Plane	1B/E1 Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
Controlling the Plane	1B/E2b One reason for following directions carefully and for keeping records of one's work is to provide information on what might have caused differences in investigations.
Controlling the Plane	3A/E1 Throughout all of history, people everywhere have invented and used tools. Most tools of today are different from those of the past but many are modifications of very ancient tools.
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Controlling the Plane	4F/E2 How fast things move differs greatly. Some things are so slow that their journey takes a long time; others move too fast for people to even see them.
Soaring Higher	1B/E1 Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
Soaring Higher	1B/E2b One reason for following directions carefully and for keeping records of one's work is to provide information on what might have caused differences in investigations.
Soaring Higher	3A/E1 Throughout all of history, people everywhere have invented and used tools. Most tools of today are different from those of the past but many are modifications of very ancient tools.
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Soaring Higher	4F/E2 How fast things move differs greatly. Some things are so slow that their journey takes a long time; others move too fast for people to even see them.

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National Standards

Grades K – 4 Science

Source: NSTA National Science Education Standards - 1996

Lesson/Activity	Grades K – 4 Science Standards
Kite Flight	This aspect of the standard emphasizes students asking questions that they can answer with scientific knowledge, combined with their own observations. Students should answer their questions by seeking information from reliable sources of scientific information and from their own observations and investigations.
Kite Flight	In early years, students develop simple skills, such as how to observe, measure, cut, connect, switch, turn on and off, pour, hold, tie, and hook. Beginning with simple instruments, students can use rulers to measure the length, height, and depth of objects and materials; thermometers to measure temperature; watches to measure time; beam balances and spring scales to measure weight and force; magnifiers to observe objects and organisms; and microscopes to observe the finer details of plants, animals, rocks, and other materials. Children also develop skills in the use of computers and calculators for conducting investigations.
Kite Flight	Scientific investigations involve asking and answering a question and comparing the answer with what scientists already know about the world.
Aviation Pioneers	In the earliest years, investigations are largely based on systematic observations. As students develop, they may design and conduct simple experiments to answer questions. The idea of a fair test is possible for many students to consider by fourth grade.
Aviation Pioneers	Women and men of all ages, backgrounds, and groups engage in a variety of scientific and technological work.
Having the Right Stuff	Women and men of all ages, backgrounds, and groups engage in a variety of scientific and technological work.
Flying a Styrofoam Plane	In early years, students develop simple skills, such as how to observe, measure, cut, connect, switch, turn on and off, pour, hold, tie, and hook. Beginning with simple instruments, students can use rulers to measure the length, height, and depth of objects and materials; thermometers to measure temperature; watches to measure time; beam balances and spring scales to measure weight and force; magnifiers to observe objects and organisms; and microscopes to observe the finer details of plants, animals, rocks, and other materials. Children also develop skills in the use of computers and calculators for conducting investigations.
Flying a Styrofoam Plane	Tools help scientists make better observations, measurements, and equipment for investigations. They help scientists see, measure, and do things that they could not otherwise see, measure, and do.
Looking for Answers:A research project	This aspect of the standard emphasizes students asking questions that they can answer with scientific knowledge, combined with their own observations. Students should answer their questions by seeking information from reliable sources of scientific information and from their own observations and investigations.
Controlling the Plane	In early years, students develop simple skills, such as how to observe, measure, cut, connect, switch, turn on and off, pour, hold, tie, and hook. Beginning with simple instruments, students can use rulers to measure the length, height, and depth of objects and materials; thermometers to measure temperature; watches to measure time; beam balances and spring scales to measure weight and force; magnifiers to observe objects and organisms; and microscopes to observe the finer details of plants, animals, rocks, and other materials. Children also develop skills in the use of computers and calculators for conducting investigations.