

“SciJinks” Activities for the Classroom Support National Education Standards

National Education Standard		Activity Article Title				
		<u>Team Up on the Weather</u>	<u>Write the Book on Weather Metrics</u>	<u>Become a Weather Wizard</u>	<u>Sizing Up the Clouds</u>	<u>Water Works on a Blue Planet</u>
Supported by ...						
Science Education Standards¹ (grades 5-8)						
Science Teaching Standards						
B.	Teachers of science guide and facilitate learning. <ul style="list-style-type: none"> • Orchestrate discourse among students about scientific ideas. • Challenge students to accept and share responsibility for their own learning. • Recognize and respond to student diversity and encourage all students to participate fully in science learning. 	X	X			X
Science Content Standards						
C.	Life Science <ul style="list-style-type: none"> • Regulation and behavior <ul style="list-style-type: none"> ○ Keeping conditions in the organism within range to survive in the environment. 	X				
D.	Earth and Space Science <ul style="list-style-type: none"> • Water cycle • Atmosphere, global patterns • Clouds, weather, climate 	X	X	X	X	X
E.	Science and Technology <ul style="list-style-type: none"> • Relationship between scientific inquiry and technology that provides solutions and benefits. • Reciprocity of science and technology 	X	X	X		X

¹ *National Science Education Standards*. National Research Council, National Academy Press, 1996.

National Education Standard		Activity Article Title				
		Team Up on the Weather	Write the Book on Weather Metrics	Become a Weather Wizard	Sizing Up the Clouds	Water Works on a Blue Planet
F.	Science in Personal and Social Perspectives. <ul style="list-style-type: none"> Understanding natural hazards and preventive measures. Role of science and technology in society. 	X		X		
Technology Education Standards² (grades 6-8)						
The Nature of technology						
1.	Students will develop an understanding of the characteristics and scope of technology. <ul style="list-style-type: none"> New products and systems can be developed to solve problems or to help do things that could not be done without the help of technology 	X	X	X		
3.	Students will develop an understanding of the relationships among technology and connections between technology and other fields of study. <ul style="list-style-type: none"> Technology systems often interact with one another. 		X			X
Technology and Society						
4.	Students will develop an understanding of the cultural, social, economic, and political effects of technology. <ul style="list-style-type: none"> Use of technology affects humans in various ways, including their safety, comfort, choices, and attitudes about technologies' development and use. 			X		
6.	Students will develop an understanding of the role of society in the development and use of technology. <ul style="list-style-type: none"> Throughout history, new technologies have resulted from the demands, values, and interests of individuals, businesses, industries, and societies. Social and cultural priorities and values are reflected in technological devices. 			X		

² *Standards for Technological Literacy: Content for the Study of Technology*, International Technology Education Association, 2000.

National Education Standard	Activity Article Title				
	Team Up on the Weather	Write the Book on Weather Metrics	Become a Weather Wizard	Sizing Up the Clouds	Water Works on a Blue Planet
Math Education Standard³ (grades 6-8)					
Numbers and Operations					
<ul style="list-style-type: none"> Understand numbers, ways of representing numbers, relationships among numbers, and number systems. (Fractions, decimals, ratios, proportion) Compute fluently and make reasonable estimates. 				X	X
Algebra					
<ul style="list-style-type: none"> Use mathematical models to represent and understand quantitative relationships. 				X	
Measurement					
<ul style="list-style-type: none"> Understand measurable attributes of objects and the units, systems, and processes of measurement. Apply appropriate techniques, tools, and formulas to determine measurements. 		X	X	X	
Data Analysis and Probability					
<ul style="list-style-type: none"> Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them. Develop and evaluate inferences and predictions that are based on data. Understand and apply basic concepts of probability. 				X	
Connections					
<ul style="list-style-type: none"> Recognize and apply mathematics in contexts outside of mathematics. 		X	X	X	

³ *Principles and Standards for School Mathematics*. National Council of Teachers of Mathematics, 2005