S·c·i·e·n·c·e **Alive** in the Classroom

... with 4-H School Enrichment Programs

THE OHIO STATE UNIVERSITY EXTENSION

Breads of the Harvest

Exploring the Science, Nutrition, and History of Bread Making Since the Pilgrims
5th grade classrooms

What sustained the Pilgrims during their long ocean voyage to the New World? What did they eat to celebrate their first harvest in the American wilderness? What European delicacies did they learn to adapt to their new homeland? Breads. This three-unit curriculum integrates science, language arts, and math concepts in a study of the role of breads in shaping the history of this nation. Among the activities:

- **demonstrating the difficulty of grinding grains into flour**
- **comparing the properties of different leavening agents**
- **analyzing dietary needs**
- **testing and tasting various bread recipes**

The teacher manual includes lesson plans, camera-ready student handouts, and information on additional resources.

visit us on the web at:
http://www.ag.ohio-state.edu/~breads

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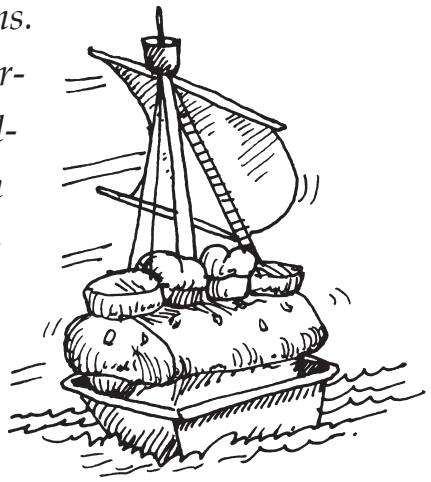
For additional information on the availability of this unit in your classroom, contact your county's OSU Extension office.



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Grade 5—Ohio Academic Content Standards and Indicators: Social Studies and Science, 2007

History		
Chronology	1. Create time lines and identify possible relationship between events.	X
Settlement	2. Explain how American Indians settled the continent and why different nations of Indians interacted with their environment in different ways.	X
	3. Explain why European countries explored and colonized North America.	
	4. Describe the lasting effects of Spanish, French and English colonization in North America including cultural patterns evident today such as language, food, traditions and architecture.	X
	5. Explain how the United States became independent from Great Britain.	
Growth	6. Explain the impact of settlement, industrialization and transportation on the expansion of the United States.	X
People in Societies		
Cultures	1. Compare the cultural practices and products of diverse groups in North America including: artistic expression, religion, language, food, clothing, shelter.	X
Interaction	2. Compare life on Indian reservations today with the cultural traditions of American Indians before the reservation system.	
	3. Describe the experiences of African-Americans under the institution of slavery.	
	4. Describe the waves of immigration to North American and the areas from which people came in each wave.	
	5. Compare reasons for immigration to North America with the reality immigrants experienced upon arrival.	
Geography		
Location	1. Use coordinates of latitude and longitude to determine the absolute location of points in North America.	
	2. Use maps to identify the location of: the three largest countries of North America, the 50 states of the United States, the Rocky and Appalachian mountain systems, the Mississippi, Rio Grande and St. Lawrence rivers, the Great Lakes.	X
Places and Regions	3. Describe and compare the landforms, climates, population, culture and economic characteristics of places and regions in North America.	X
	4. Explain how climate is influenced by: earth-sun relationships, landforms, vegetation.	
	5. Explain, by identifying pattern on thematic maps, how physical and human characteristics can be used to define regions in North America.	X
	6. Use distribution maps to describe the patterns of renewable, non-renewable and flow resources in North America including; forests, fertile soil, oil, coal, running water.	
	7. Analyze reasons for conflict and cooperation among regions of North America including: trade, environmental issues, immigration.	

Human and Environmental Interaction	8. Explain how the characteristics of different physical environments affect human activities in North America.	X
	9. Analyze the positive and negative consequences of human changes to the physical environments including: Great Lakes navigation, highway systems, irrigation, mining, introduction of new species.	
Movement	10. Use or construct maps of colonization and exploration to explain European influence in North America.	X
Economics		
Scarcity and Resource Allocation	1. Compare different allocation methods for scarce goods and services such as prices, command, first-come-first-served, sharing equally, rationing and lottery.	
	2. Explain the individuals in all economies must answer the fundamental economic questions of what to produce, how to produce, and for whom to produce.	X
Production, Distribution & Consumption	3. Explain how education, specialization, capital goods and the division of labor affect productive capacity.	X
Markets	4. Explain how regions in North America become interdependent when they specialize in what they produce best & then trade with other regions inside & outside North America to increase the amount & variety of goods & services available.	X
	5. Explain the general relationship between supply, demand and price in a competitive market.	
	6. Explain why competition among producers/sellers results in lower costs & prices, higher product quality, & better customer service.	X
	7. Explain why competition among consumers/buyers results in higher product prices.	
Science: Scientific Ways of Knowing		
Nature of Science	1. Summarize how conclusions and ideas change as new knowledge is gained.	X
	2. Develop descriptions, explanations and models using evidence to defend/support findings.	X
	3. Explain why an experiment must be repeated by different people or at different times or places and yield consistent results before the results are accepted.	
	4. Identify how scientists use different kinds of ongoing investigations depending on the questions they are trying to answer (e.g., observations of things or events in nature, data collection and controlled experiments).	X
Ethical Practices	5. Keep records of investigations and observations that are understandable weeks or months later.	
Science & Society	6. Identify a variety of scientific and technological work that people of all ages, backgrounds and groups perform.	