ACT Activities
Examples directly align to Human Services, Education & Training and Hospitality & Tourism standards.

Career Cluster: Human Services & Education & Training
Reading Comprehension in <u>Family Studies</u>-Addresses Standard 2

"The last century has seen a transformation of marriage and family life. But to address new challenges, argues **Stephanie Coontz**, we can't delude ourselves into thinking there ever was a Golden Age for couples and families. Marriage has changed more in the last 30 years than in the previous 3,000. For millennia, marriage decisions were dictated more by economic and political considerations than by love and personal satisfaction. This made marriage a very coercive institution, especially for young people and for women in general. Today, by contrast, people have unprecedented freedom about whether, when, and whom to marry, as well as about how to organize their personal relationships in and out of marriage. Marriages are no longer based on the legal subordination of women and children, and many women have even attained economic equality with their partners."

The primary purpose of the passage is to:
A. explain the challenges posed to many families today.
B. describe the evolution of family.
C. argue the importance of subordination of women and children in family in the past.
D. analyze the many challenges faced by family in new social institutions, economic trends, and cultural attitudes.

Source: The Greater Good: The Science of a Meaningful Life http://greatergood.berkeley.edu/article/item/the_family_revolution
"The Family Revolution" By Stephanie Coontz

Mathematics in <u>Nutrition Across the Lifespan</u>-Addresses Standard 4
A typical high school student consumes 67.5 pounds of sugar per year. As part of a new nutrition plan, each member of a track team plans to lower the sugar he or she consumes by at least 20 percent for the coming year. Assuming each track team member had consumed sugar at the level of a typical high school student and will adhere to this plan for the coming year, what is the maximum number of pounds of sugar to be consumed by each track team member in the coming year?

A. 14
B. 44
C. 48
D. 54
E. 66

Source: The ACT: Sample Mathematics Questions: Set 1. http://www.actstudent.org/sampletest/math/math_01.html

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Reading Comprehension in <u>Lifespan Development</u>-Addresses Standard 4

"The formation of synapses (synaptogenesis) and their pruning occurs at different times in different parts of the brain. The sequence seems to coincide with the emergence of various skills. Synaptogenesis begins in the motor cortex at about 2 months. Around then, infants lose their "startle" and "rooting" reflexes and begin to master purposeful movements. At 3 months, synapse formation in the visual cortex peaks; the brain is fine-tuning connections allowing the eyes to focus on an object. At 8 or 9 months the hippocampus, which indexes and files memories, becomes fully functional; only now can babies form explicit memories of, say, how to move a mobile. In the second half of the first year, finds Chugani, the prefrontal cortex, the seat of forethought and logic, forms synapses at such a rate that it consumes twice as much energy as an adult brain. That furious pace continues for the child's first decade of life."

The paragraph suggest that the formation of synapses occurs most rapidly:

A. during the first two months of a child's life.
B. during the first nine months of a child's life.
C. from the time a child is about six months old until that child is about ten years old.
D. from the time a child is about one year old until that child is well into adolescence.

NATURAL SCIENCE: This passage is adapted from the article "How to Build a Baby's Brain" by Sharon Begley (©1997 by Newsweek, Inc.). In this selection, the term neuron refers to a specialized cell of the nervous system, and tomography refers to a method of producing three-dimensional images of internal structures.

Source: The ACT: Sample Reading Questions: Passage 4. http://www.actstudent.org/sampletest/reading/read_04.html
Visited Feb. 12, 2016

Mathematics in Cosmetology & Barbering

A cosmetologist has a bottle of 7% hydrogen peroxide solution (x) and a bottle of 4% hydrogen peroxide solution (y). The cosmetologist needs 300 milliliters of 5% hydrogen peroxide solution. How many milliliters of each solution does the cosmetologist need to mix together?

A. x-108,y-192
B. x-110,y-190
C. x-100,y-200
D. x-120,y-180

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Career Cluster: Hospitality & Tourism
Mathematics in Culinary Arts-Addresses Standard 4
Math in *Culinary Arts*-Addresses Standard #.

Ding's Diner advertised this daily lunch special: "Choose 1 item from each column—only $4.95!" Thus, each daily lunch special consists of a salad, a soup, a sandwich, and a drink.

Salads	**Soups**	**Sandwiches**	**Drinks**
Cole slaw	Onion	Meat loaf	Milk
Lettuce	Tomato	Chicken	Cola
Potato		Hamburger	Coffee
		Ham	Tea
		tenderloin	

How many different daily lunch specials are possible?
- A. 4
- B. 14
- C. 30
- D. 120
- E. 180

Source: The ACT: Sample Mathematics Questions: Set 2. http://www.actstudent.org/sampletest/math/math_01.html
Visited Feb. 11, 2016

Mathematics in Culinary Arts-Addresses Standard 5

At Joe's Pizza Palace, a medium pizza costs $10.95, a large pizza costs $14.95. On a Friday night within four hours, 50 pizzas were sold at a cost of $663.50. How many medium and how many large pizzas were sold?

- A. Medium-21, Large-29
- B. Medium-17, Large-33
- C. Medium-24, Large-26
- D. Medium-31, Large-19

Mathematics in Hospitality Management-Addresses Standard 14

The Sunrise Home, a long-term care facility for seniors, budget for the first 6 months is set for an 80% occupancy rate. Budget figures for this level are listed below. The second 6 months will have an occupancy rate of 60%. What would the food cost budget be for the second 6 months?

Food costs: $30,000	Labor costs: $25,000	Operating costs: $24,000

- A. $20,800
- B. $22,500
- C. $24,600
- D. $26,500

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