



Mathematics

with Business Applications

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STANDARDS		PAGE REFERENCES
<p>Survey of Mathematical Topics is designed to provide students with the skills necessary in making wise financial decisions. The basic concepts of algebra will be reviewed and extended as students solve real-life problems that affect them and their families. This course will provide skills in probability and statistics, logic, linear programming, and regression analysis. Students are encouraged to use a variety of techniques and appropriate technology (calculators and/or computers) to solve problems. The instructional approach should provide opportunities for students to work together collaboratively and cooperatively as they solve routine and non-routine problems. Communication strategies should include reading, writing, speaking, and critical listening as students present and evaluate mathematical arguments, proofs, and explanations about their reasoning. This course is designed for students who have successfully completed Algebra I, Geometry, and/or Algebra II. This is a one-credit course.</p>		
NUMBER AND OPERATIONS		
1.	Compute, analyze, and develop a variety of skills necessary to manage personal and business finance to include aspects of employer-employee decision making and consumer credit.	
a.	Develop a household budget. (DOK 2)	<p>Student Edition: 146-148, 149-152, 153-155, 158-162, 163 <i>Living in the Real World</i> 157</p> <p>Teacher Wraparound Edition: F 146; QQ 156; R 158, 161, 162; T 147, 150, 154; TC 151</p>
b.	Use and apply basic accounting procedures to maintain and balance a checkbook. (DOK 2)	<p>Student Edition: 166-168, 169-171, 172-174, 175-177, 178-181, 182-187, 190-193 <i>Living in the Real World</i> 178</p> <p>Teacher Wraparound Edition: A 180, 186; C 177, 181, 204; F 178; PS 178; T 179, 180, 184; VC 179</p>
c.	Identify the terminology and apply the process of filing personal income tax. (DOK 2)	<p>Student Edition: 116-118, 119-121, 122-123, 124-125, 128-131, 132, 134-136 <i>Math Studio</i> 140-143</p>

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		Teacher Wraparound Edition: C 188, 121, 123, 125, 131; F 116; PS 117; T 117, 118, 120
d.	Identify and explain the components and processes involved in the purchase, operation, and maintenance of a personal vehicle. (DOK 2)	Student Edition: 314-316, 317-319, 320-322, 323-326, 327-329, 330-332 (leasing a vehicle), 337-340 <i>Living in the Real World</i> 327 Teacher Wraparound Edition: C 319, 326, 329; R 338, 340; T 318, 324-325, 328-329
e.	Determine the advantages and disadvantages of housing alternatives. (DOK 2)	Student Edition: 344-345, 346-348, 349-350, 351-354, 357-358, 359-360, 361-363, 366-369 <i>Living in the Real World</i> 327 Teacher Wraparound Edition: C 345; F 344, 355; PS 346; QQ 364-365; T 347, 352
f.	Use information and data to make sound decisions regarding personal savings. (DOK 3)	Student Edition: 196-198, 199-201, 202-204, 205-207, 208-210, 211-213, 214-216, 217-219, 221-227 <i>Living in the Real World</i> 217 Teacher Wraparound Edition: C 210; CS 201; GP 213; T 197, 203, 206, 209, 212
g.	Identify life and health insurance terminology and apply it to real-world situations. (DOK 2)	Student Edition: 126-127, 370-371, 372-374, 375-377, 378-380, 381-383, 385-388 <i>Living in the Real World</i> 372, 378 Teacher Wraparound Edition: A 383; C 374, 377, 380; R 388; T 373, 376-377, 379, 382
h.	Compute and compare various forms of earnings and calculate gross pay, deductions, and net pay. (DOK 2)	Student Edition: 90-93, 94-95, 99-100, 101-102, 103-105, 106-107, 109-113, 116-118, 119-121, 122-123, 124-125, 128-131 <i>Living in the Real World</i> 94 Teacher Wraparound Edition: CL 128; QQ 108; T 93, 95, 102, 129; TC 99

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i.	Compare and contrast the finances of credit cards. (DOK 2)	<p>Student Edition: 258-260, 261-263, 264-267, 268-271, 273-279 <i>Living in the Real World</i> 261, 268 <i>Math Studio</i> 280-281</p> <p>Teacher Wraparound Edition: A 263; C 263, 267; F 264; RA 261; T 262, 266</p>
j.	Identify and evaluate modes of transportation. (DOK 2)	<p>Student Edition: 314-316, 317-319, 320-322, 327-329, 330-332, 333-335, 338-341 <i>Living in the Real World</i> 330</p> <p>Teacher Wraparound Edition: C 316, 319; T 314-315, 321, 328, 331, 334</p>
k.	Identify and explain the components and processes involved in the stock market and apply them to real-world applications. (DOK 2)	<p>Student Edition: 400-402, 403-405, 406-408, 415 #20-#25, 416, 685-687 <i>Living in the Real World</i> 403 <i>Math Studio</i> 418-419</p> <p>Teacher Wraparound Edition: A 405, 408; C 408; F 403; QQ 412 #3-#4, 413 # 5; T 401, 404, 407, 686; TC 400</p>
ALGEBRA		
2.	Identify and apply the practices that affect employer and employee decision-making.	
a.	Identify and apply appropriate algebraic formulas to personal finance situations. (DOK 2)	<p>Student Edition: 92-93, 94-95, 101-102, 110-113, 116-118, 119-121, 122-123, 126-127, 128-131, 133-138 <i>Living in the Real World</i> 116</p> <p>Teacher Wraparound Edition: C 127; F 116, 128; QQ 132; T 93, 95, 129</p>
b.	Apply linear programming to business decisions. (DOK 2)	<p>Student Edition: 458-460, 461-462, 466-468, 594-595, 596-598, 614-615, 621-623 <i>Living in the Real World</i> 458, 585, 614</p> <p>Teacher Wraparound Edition: C 462, 467, 468, 622; CS 462; T 459</p>

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c.	Identify and apply appropriate algebraic formulas to personal and business investments. (DOK 2)	Student Edition: 394-396, 397-399, 400-402, 403-405, 406-408, 409-411, 414-417, 685-687, 691-692, 693-694, 700-702 Teacher Wraparound Edition: C 402, 408; QQ 412, 698; T 395, 410, 686
3. Demonstrate an understanding of the impact of consumer credit.		
a.	Identify and explain the advantages and disadvantages of installment loans. (DOK 2)	Student Edition: 287-289, 290-293, 295-296, 297-299, 306, 307, 310-311, 688-690 Teacher Wraparound Edition: C 289, 293, 299, 690; F 294; R 306, 307; T 288, 291-292, 689; TC 292
b.	Identify and apply appropriate algebraic formulas to consumer credit. (DOK 2)	Student Edition: 258-260, 261-263, 264-267, 268-271, 274-279 Teacher Wraparound Edition: C 260, 263, 267, 269-270, 271; QQ 272; T 259, 262, 265, 266
DATA ANALYSIS & PROBABILITY		
4. Collect and apply information for planning a trip.		
a.	Investigate and evaluate modes of transportation. (DOK 2)	Student Edition: 333-335, 341 #36-#39, 441-442 Teacher Wraparound Edition: A 335, C 335; CP 334; T 334
b.	Create a travel budget. (DOK 2)	Student Edition: 153-155, 440-442, 452 #34-#39 Teacher Wraparound Edition: C 335, 442; T 334, 441
c.	Make travel plans based upon airline schedules. (DOK 2)	Teacher Wraparound Edition: TP 440
d.	Apply map-reading skills. (DOK 1)	This standard falls outside the scope of this text and may be covered during teacher/class discussion.
e.	Apply appropriate formulas used for planning a trip. (DOK 1)	Student Edition: 48-49, 333-335, 440-442, 452 #34-#39 Teacher Wraparound Edition: A 49, 442; C 335, 442; PS 259; RA 247; T 48, 441