

B.E. Publishing

Correlation to *Foundations of Business* to Texas Essential Knowledge and Skills (TEKS)

Course: Principles of Business, Marketing, and Finance

Subject	Chapter 130. Career and Technical Education, Subchapter D. Business Management and Administration
Course Title	§130.132. Principles of Business, Marketing, and Finance (One Credit), Adopted 2015.
(a) General Requirements. This course is recommended for students in Grades 9-11. Students shall be awarded one credit for successful completion of this course.	
(b) Introduction.	
<p>(1) Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.</p> <p>(2) The Business Management and Administration Career Cluster focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.</p> <p>(3) In Principles of Business, Marketing, and Finance, students gain knowledge and skills in economies and private enterprise systems, the impact of global business, the marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in business, marketing, and finance.</p> <p>(4) Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.</p> <p>(5) Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.</p>	

STANDARD		CORRELATING PAGES
(1) The student demonstrates professional standards/employability skills required by business and industry. The student is expected to:		
(A)	communicate effectively with others using oral and writing skills	
(i)	communicate effectively with others using oral skills	Narrative: Ch. 8 p. 174 Speaking, Ch. 22 p. 442 Communication Activity: Ch. 8 Create and Design, Ch. 22 Listen and Speak, Ch. 22 Create and Design
(ii)	communicate effectively with others using writing skills	Narrative: Ch. 8 p. 175 Writing, Ch. 22 p. 442 Communication Activity: Ch. 8 Create and Design, Ch. 22 Create and Design
(B)	demonstrate collaboration skills through teamwork	
(i)	demonstrate collaboration skills through teamwork	Narrative: Ch. 8 p. 167 Working in Teams bullet #1, Ch. 22 p. 442 Communication Activity: Ch. 8 Create and Design, Ch. 22 Create and Design
(C)	demonstrate professionalism by conducting oneself in a manner appropriate for the profession and workplace	
(i)	demonstrate professionalism by conducting oneself in a manner appropriate for the profession	Narrative: Ch. 8 p. 162 Professionalism, Ch. 22 p. 440 Skills Needed for Employment Activity: Ch. 8 Test Your Knowledge #9, Ch. 22 Create and Design
(ii)	demonstrate professionalism by conducting oneself in a manner appropriate for the workplace	Narrative: Ch. 8 p. 162 Professionalism, Ch. 22 p. 440 Skills Needed for Employment Activity: Ch. 8 Test Your Knowledge #9, Ch. 22 Create and Design
(D)	demonstrate a positive, productive work ethic by performing assigned tasks as directed	
(i)	demonstrate a positive, productive work ethic by performing assigned tasks as directed	Narrative: Ch. 8 p. 162 Professionalism, Ch. 22 p. 440 Personal Qualities Activity: Ch. 8 Test Your Knowledge #10, Ch. 22 Create and Design
(E)	comply with all applicable rules, laws, and regulations	
(i)	comply with all applicable rules, laws, and regulations	Narrative: Ch. 8 p. 163 Complying with Rules, Laws, and Regulations, Ch. 22 p. 453 Federal Employment Laws Activity: Ch. 8 Test Your Knowledge #8, Ch. 22 Test Your Knowledge #1
(F)	demonstrate time-management skills by prioritizing tasks, following schedules, and tending to goal-relevant activities in a way that uses time wisely and optimizes efficiency and results	
(i)	demonstrate time management skills by prioritizing tasks	Narrative: Ch. 8 p. 164 Time Management Skills bullet #1, Ch. 22 p. 441 Time Management Activity: Ch. 8 Test Your Knowledge #12, Ch. 8 Listen and Speak, Ch. 22 Read and Write
(ii)	demonstrate time management skills by following schedules	Narrative: Ch. 8 p. 164 Time Management Skills bullet #2, Ch. 22 p. 441 Time Management Activity: Ch. 8 Test Your Knowledge #12, Ch. 8 Listen and Speak, Ch. 22 Read and Write

	(iii)	demonstrate time management skills by tending to goal-relevant activities in a way that uses time wisely	Narrative: Ch. 8 p. 164 Time Management Skills, Ch. 22 p. 441 Time Management Activity: Ch. 8 Test Your Knowledge #12, Ch. 8 Listen and Speak, Ch. 22 Read and Write
	(iv)	demonstrate time management skills by tending to goal-relevant activities in a way that optimizes efficiency	Narrative: Ch. 8 p. 164 Time Management Skills, Ch. 22 p. 441 Time Management Activity: Ch. 8 Test Your Knowledge #12, Ch. 8 Listen and Speak, Ch. 22 Read and Write
	(v)	demonstrate time management skills by tending to goal-relevant activities in a way that optimizes results	Narrative: Ch. 8 p. 164 Time Management Skills, Ch. 22 p. 441 Time Management Activity: Ch. 8 Test Your Knowledge #12, Ch. 8 Listen and Speak, Ch. 22 Read and Write
(2) The student describes the characteristics of business. The student is expected to:			
(A)	explain the principles of supply and demand		
	(i)	explain the principle of supply and demand	Narrative: Ch. 3 p. 42 Principle of Supply and Demand, Ch. 3 p. 42 Law of Supply, Ch. 3 p. 42 Figure 3.4. Ch. 3 p. 43 Law of Demand, Ch. 3 p. 43 Figure 3.5, Ch. 3 p. 43 Equilibrium, Ch. 3 p. 43 Figure 3.6 Activity: Ch. 3 Test Your Knowledge #10
(B)	differentiate between goods and services		
	(i)	differentiate between goods and services	Narrative: Ch. 1 p. 8 Providing Products paragraph #2 Activity: Ch. 1 Test Your Knowledge #1
(C)	identify the types of business		
	(i)	identify the types of business	Narrative: Ch. 2 p. 18 Types of Business, Ch. 4 p. 66 Sectors in a Private Enterprise System Activity: Ch. 2 Test Your Knowledge #6, Ch. 4 Test Your Knowledge #6
(D)	compare the different forms of ownership		
	(i)	compare the different forms of ownership	Narrative: Ch. 2 p. 20 Forms of Business Ownership Activity: Ch. 2 Test Your Knowledge #2 and #4, Ch. 2 Listen and Speak #1
(E)	examine the organizational structure and functions of business		
	(i)	examine the organizational structure of business	Narrative: Ch. 8 p. 154 Organizational Structure of Business Activity: Ch. 8 Test Your Knowledge #1
	(ii)	examine the organizational functions of business	Narrative: Ch. 8 p. 158 Organizational Functions Activity: Ch. 8 Test Your Knowledge #1
(F)	interpret the nature of balance sheets and income statements		
	(i)	interpret the nature of balance sheets	Narrative: Ch 16 p. 314 Balance Sheets Activity: Ch 16 Read and write, Ch. 16 Test Your Knowledge #3

	(ii)	interpret the nature of income statements	Narrative: Ch 16 p. 317 Income Statements Activity: Ch 16 Read and Write, Ch. 16 Test Your Knowledge #3
(G)	identify business cycles		
	(i)	identify business cycles	Narrative: Ch. 3 p. 52 Business Cycles Activity: Test Your Knowledge #19
(3) The student defines ethics in business. The student is expected to:			
(A)	distinguish between ethical and unethical business practices		
	(i)	distinguish between ethical and unethical business practices	Narrative: Ch. 6 p. 17 Ethical, Moral, and Legal Decision-Making in Business, Ch. 6 Figure 6.11 Activity: Ch. 6 Listen and Speak bullet #1
(B)	contrast ethical, moral, and legal choices that relate to the decision-making process in business situations		
	(i)	contrast ethical, moral, and legal choices that relate to the decision-making process in business situations	Narrative: Ch. 6 p. 121 Ethical, Moral, and Legal Decision-Making in Business Activity: Ch. 6 Listen and Speak bullet #2
(4) The student differentiates between the types of economic systems with emphasis on the private enterprise system and the U.S. economy. The student is expected to:			
(A)	compare and contrast the types of economic systems, including traditional, centrally planned, market, and mixed economies		
	(i)	compare and contrast the types of economic systems, including traditional economies	Narrative: Ch. 3 p. 39 Traditional Economies, Ch. 3 p. 5 Figure 3.2 Activity: Ch 3 Listen and Speak
	(ii)	compare and contrast the types of economic systems, including centrally planned economies	Narrative: Ch. 3 p. 40 Centrally Planned Economies, Ch. 3 p. 39 Figure 3.2 Activity: Ch. 3 Listen and Speak
	(iii)	compare and contrast the types of economic systems, including market economies	Narrative: Ch. 3 p. 40 Market Economies, Ch. 3 p. 39 Figure 3.2 Activity: Ch. 3 Listen and Speak
	(iv)	compare and contrast the types of economic systems, including mixed economies	Narrative: Ch. 3 p. 41 Mixed Economies, Ch. 3 p. 39 Figure 3.2 Activity: Ch. 3 Listen and Speak
(B)	summarize the characteristics of the private enterprise system		
	(i)	summarize the characteristics of the private enterprise system	Narrative: Ch. 4 p. 65 Private Enterprise, Ch. 4 p. 65 Figure 4.1 Activity: Ch. 4 Test Your Knowledge #2
(C)	identify factors affecting a business'[s] profits, revenues, and expenses		
	(i)	identify factors affecting a business'[s] profits	Narrative: Ch. 4 p. 76 Profits Activity: Ch. 4 Read and Write bullet #4, Ch. 4 Test Your Knowledge #1

	(ii)	identify factors affecting a business'[s] revenues	Narrative: Ch. 4 p. 76 Revenue Activity: Ch. 4 Read and Write bullet #4, Ch. 4 Test Your Knowledge #1
	(iii)	identify factors affecting a business'[s] expenses	Narrative: Ch. 4 p. 76 Expenses Activity: Ch. 4 Read and Write bullet #4, Ch. 4 Test Your Knowledge #1
(5) The student relates to the impact of international business on the U.S. economy. The student is expected to:			
(A)	explain the role of business in a global society		
	(i)	explain the role of business in a global society	Narrative: Ch. 5 p. 82 Business in a Global Society Activity: Ch. 5 Test your Knowledge #15, Ch. 5 Listen and Speak bullet #1
(B)	compare domestic and world trade		
	(i)	compare domestic and world trade	Narrative: Ch. 5 p. 84 Overview of Domestic and World Trade Activity: Ch. 5 Listen and Speak bullet #3
(C)	explain the impact of imports and exports on the U.S. economy		
	(i)	explain the impact of imports on the U.S. economy	Narrative: Ch. 5 p. 86 Impact of Imports Activity: Ch. 5 Test Your Knowledge #14
	(ii)	explain the impact of exports on the U.S. economy	Narrative: Ch. 5 p. 86 Impact of Exports Activity: Ch. 5 Test Your Knowledge #14
(6) The student identifies the role and impact of government, the legal system, and organized labor in business. The student is expected to:			
(A)	differentiate among the roles of government in business		
	(i)	differentiate among the roles of government in business	Narrative: Ch. 6 p. 3-4 The Role of Government in Business, Ch. 3 p. 21 The Government's Role in the US Economy Activity: Ch. 6 Create and Design bullet #2
(B)	describe types of activities performed by governments in business		
	(i)	describe types of activities performed by governments in business	Narrative: Ch. 6 p. 108 The Role of Government in Business Activity: Ch. 6 Create and Design bullet #3
(C)	ascertain the role of the legal system in business		
	(i)	ascertain the role of the legal system in business	Narrative: Ch. 6 p. 106 Role of the Legal System in Business, Ch. 6 p. 110 Legal System at Work Activity: Ch. 6 Create and Design bullet #1

(D)	explain the role of organized labor in society	
(i)	explain the role of organized labor in society	Narrative: Ch. 10 p. 218 Organized Labor Activity: Ch. 10 Test Your Knowledge #11
(7) The student classifies types of businesses that market goods and services. The student is expected to:		
(A)	explain the importance of different marketing strategies for goods versus services	
(i)	explain the importance of different marketing strategies for goods versus services	Narrative: Ch 11 p. 234 Marketing Strategies for Services Activity: Ch 11. Test Your Knowledge #4
(B)	define business and industry terms such as producers, raw-goods producers, manufacturers, builders, trade industries, retailers, wholesalers, and service businesses	
(i)	define business and industry terms	Narrative: Ch 4 p. 66 Sectors in a Private Enterprise System Activity: Ch. 4 Test Your Knowledge #6
(C)	identify types of retailers	
(i)	identify types of retailers	Narrative: Ch. 4 p. 67 Intermediaries Activity: Ch. 4 Test Your Knowledge #4, Ch. 4 Listen and Speak
(D)	explain the role of retailers in a private enterprise system	
(i)	explain the role of retailers in a private enterprise system	Narrative: Ch. 4 p. 67 Intermediaries Activity: Ch. 4 Test Your Knowledge #4, Ch. 4 Listen and Speak, Ch. 4 Create and Design
(E)	identify examples of wholesalers	
(i)	identify examples of wholesalers	Narrative: Ch. 4 p. 67 Intermediaries Activity: Ch. 4 Test Your Knowledge #5, Ch. 4 Listen and Speak
(F)	describe the role of wholesalers in a private enterprise system	
(i)	describe the role of wholesalers in a private enterprise system	Narrative: Ch. 4 p. 67 Intermediaries Activity: Ch. 4 Test Your Knowledge #5, Ch. 4 Listen and Speak, Ch. 4 Create and Design

(8) The student analyzes cost and profit relationships in finance. The student is expected to:		
(A)	explain the concept of productivity	
	(i)	explain the concept of productivity Narrative: Ch. 3 p. 50 Productivity, Ch. 4 p. 77 Productivity Activity: Ch. 3 Test Your Knowledge #5
(B)	analyze the impact of specialization and division of labor on productivity	
	(i)	analyze the impact of specialization on productivity Narrative: Ch. 3 p. 50 Factors That Affect Productivity bullet #1 Activity: Ch. 3 Test Your Knowledge #5
	(ii)	analyze the impact of division of labor on productivity Narrative: Ch. 3 p. 50 Factors That Affect Productivity bullet #1 Activity: Ch. 3 Test Your Knowledge #5
(C)	explain the concept of organized labor and business	
	(i)	explain the concept of organized labor Narrative: Ch. 10 p. 218 Organized Labor Activity: Ch. 10 Test Your Knowledge #11
	(ii)	explain the concept of business Narrative: Ch. 1 p. 4 Introduction to Business and Economics paragraph #2 Activity: Ch. 1 Test Your Knowledge #2
(9) The student understands the fundamental principles of money. The student is expected to:		
(A)	evaluate forms of financial exchange, including cash, credit, debit, and electronic funds transfer	
	(i)	evaluate forms of financial exchange, including cash Narrative: Ch 14 p. 277 Forms of Financial Exchange Activity: Ch 14 Read and Write, Ch 14 Test Your Knowledge #6
	(ii)	evaluate forms of financial exchange, including credit Narrative: Ch 14 p. 277 Forms of Financial Exchange Activity: Ch 14 Read and Write, Ch 14 Test Your Knowledge #6
	(iii)	evaluate forms of financial exchange, including debit Narrative: Ch 14 p. 277 Forms of Financial Exchange Activity: Ch 14 Read and Write, Ch 14 Test Your Knowledge #6
	(iv)	evaluate forms of financial exchange, including electronic funds transfer Narrative: Ch 14 p. 277 Forms of Financial Exchange Activity: Ch 14 Read and Write, Ch 14 Test Your Knowledge #6
(B)	identify types of currency, including paper money, coins, banknotes, government bonds, and treasury notes	
	(i)	identify types of currency, including paper money Narrative: Ch 14 p. 275 Types of Currency Activity: Ch 14 Create and Design
	(ii)	identify types of currency, including coins Narrative: Ch 14 p. 275 Types of Currency Activity: Ch 14 Create and Design

	(iii)	identify types of currency, including banknotes	Narrative: Ch 14 p. 275 Types of Currency Activity: Ch 14 Create and Design
	(iv)	identify types of currency, including government bonds	Narrative: Ch 14 p. 275 Types of Currency Activity: Ch 14 Create and Design
	(v)	identify types of currency, including treasury notes	Narrative: Ch 14 p. 275 Types of Currency Activity: Ch 14 Create and Design
(C)	list functions of money such as medium of exchange, unit of measure, and store of value		
	(i)	list functions of money	Narrative: Ch 14 p. 273 Functions of Money Activity: Ch 14 Listen and Speak
(D)	summarize the purpose and importance of credit		
	(i)	summarize the purpose of credit	Narrative: Ch 15 p. 288 Purpose and Importance of Credit Activity: Ch 15 Test Your Knowledge #1, Ch 15 Read and Write
	(ii)	summarize the importance of credit	Narrative: Ch 15 p. 288 Purpose and Importance of Credit Activity: Ch 15 Test Your Knowledge #1, Ch 15 Read and Write
(E)	explain legal responsibilities associated with financial exchanges		
	(i)	explain legal responsibilities associated with financial exchanges	Narrative: Ch 14 p. 280 Ethical and Legal Considerations Activity: Ch 14 Read and Write, Ch 14 Test Your Knowledge #3
(10) The student demonstrates an understanding of personal financial management. The student is expected to:			
(A)	explain the importance of providing accurate information		
	(i)	explain the importance of providing accurate information	Narrative: Ch 17 Form W-4 p. 328 Activity: Ch 17 Test Your Knowledge #1
(B)	calculate gross and net pay		
	(i)	calculate gross pay	Narrative: Ch 17 The Anatomy of a Pay Stub p. 330 Activity: Ch 17 Test Your Knowledge #2
	(ii)	calculate net pay	Narrative: Ch 17 The Anatomy of a Pay Stub p. 330 Activity: Ch 17 Test Your Knowledge #3

(C)	simulate opening and maintaining various types of bank accounts	
	(i)	simulate opening various types of bank accounts Narrative: Ch. 18 p. 353 Checking Accounts, Ch. 18 p. 356 Savings Accounts Activity: Ch 18 Create and Design, Ch. 18 Test Your Knowledge #1
	(ii)	simulate maintaining various types of bank accounts Narrative: Ch. 18 p. 353 Checking Accounts, Ch. 18 p. 356 Savings Accounts Activity: Ch 18 Create and Design
(D)	reconcile bank statements	
	(i)	reconcile bank statements Narrative: Ch. 18 p. 353 Checking Accounts Activity: Ch 18 Create and Design, Ch. 18 Test Your Knowledge #2
(E)	compare the advantages and disadvantages of different types of banking services	
	(i)	compare the advantages and disadvantages of different types of banking services Narrative: Ch. 18 p. 353 Checking Accounts, Ch. 18 p. 356 Savings Accounts, Ch. 18 p. 361 Online Banking Activity: Ch 18 Create and Design, Ch. 18 Test Your Knowledge #3
(F)	examine investment growth by developing a personal investment plan	
	(i)	examine investment growth by developing a personal investment plan Narrative: Ch. 19 p. 370 Foundations of Investing, Ch. 19 p. 390 Student Start-up Activity: Ch 19 Student Start- Up, Ch. 19 Test Your Knowledge #9
(G)	prepare an individual income tax return	
	(i)	prepare an individual income tax return Narrative: Ch 17 p. 336 Tax Documentation Activity: Ch 17 Test Your Knowledge #4
(11) The student explains the importance of marketing as well as the functions of marketing. The student is expected to:		
(A)	define marketing	
	(i)	define marketing Narrative: Ch 11 p. 226 Marketing Importance Activity: Ch 11 Test Your Knowledge #1
(B)	understand how marketing is related to other functions of business	
	(i)	understand how marketing is related to other functions of business Narrative: Ch 11 p. 226 Marketing Importance Activity: Ch 11 Test Your Knowledge #2
(C)	explain the marketing concept	
	(i)	explain the marketing concept Narrative: Ch 11 p. 227 Marketing Concept, Ch 12 p. 240 Market Identification Activity: Ch 11 Test Your Knowledge #3, Ch 12 Test Your Knowledge #5

(D)	describe marketing functions and its related activities	
(i)	describe marketing functions	Narrative: Ch 11 p. 229 Marketing Functions Activity: Ch 11 Listen and Speak, Ch. 11 Test Your Knowledge #6
(ii)	describe [marketing's] related activities	Narrative: Ch 11 p. 229 Marketing Functions Activity: Ch 11 Listen and Speak

(12) The student understands the scope of market identification. The student is expected to:		
(A)	explain the concept of market and market identification	
	(i)	explain the concept of market Narrative: Ch 12 p. 240 Market Identification, Ch 11 p. 227 Marketing Concept Activity: Ch 12 Test Your Knowledge #5, Ch 11 Test Your Knowledge #3
	(ii)	explain the concept of market identification Narrative: Ch 12 p. 240 Market Identification Activity: Ch 12 Test Your Knowledge #3 and #7
(B)	identify market segments	
	(i)	identify market segments Narrative: Ch 12 p. 242 Market Segmentation Activity: Ch 12 Listen and Speak, Ch. 12 Test Your Knowledge #4 and #8
(C)	explain the difference in market segmentation and mass marketing	
	(i)	explain the difference in market segmentation and mass marketing Narrative: Ch 12 p. 244 Mass Marketing Activity: Ch 12 Test Your Knowledge #1
(D)	define and explain the importance of target markets	
	(i)	define target markets Narrative: Ch 12 p. 240 Target Markets Activity: Ch 12 Test Your Knowledge #2
	(ii)	explain the importance of target markets Narrative: Ch 12 p. 240 Target Markets Activity: Ch 12 Test Your Knowledge #2
(E)	identify a target market for a product or service using market segmentation	
	(i)	identify a target market for a product or service using market segmentation Narrative: Ch 12 p. 243 Customer Profile Activity: Ch 12 Listen and Speak
(13) The student understands the importance of an effective marketing mix. The student is expected to:		
(A)	explain the concept of marketing strategies	
	(i)	explain the concept of marketing strategies Narrative: Ch 11 p. 228 Marketing Mix, Ch. 11 p. 231 Marketing Strategies Activity: Ch 11 Test Your Knowledge #4 and #7
(B)	define each component of the marketing mix	
	(i)	define each component of the marketing mix Narrative: Ch 13 p. 252–264 Activity: Ch 13 Read and Write, Ch. 13 Test Your Knowledge #6

(C)	identify examples of an effective marketing mix	
	(i)	identify examples of an effective marketing mix Narrative: Ch 13 p. 252–264 Activity: Ch 13 Read and Write, Ch. 13 Test Your Knowledge #6
(D)	create an effective marketing mix for a product or service	
	(i)	create an effective marketing mix for a product or service Narrative: Ch 13 p. 252–264 Activity: Ch 13 Read and Write, Ch. 13 Student Start-Up
(E)	explain the role of participation as a key element of marketing	
	(i)	explain the role of participation as a key element of marketing Narrative: Ch. 13 p. 262 Participation Activity: Ch. 13 Test Your Knowledge #3
(14) The student identifies career opportunities within the Business Management and Administration career cluster, the Finance career cluster, and the Marketing career cluster, and formulates a career plan. The student is expected to:		
(A)	analyze individual goals and interests	
	(i)	analyze individual goals Narrative: Ch. 7 p. 133 Entrepreneurial Concepts, Ch. 21 Crafting a Career Plan p. 433 Activity: Ch. 7 Create and Design, Ch 21 Read and Write, Ch. 21 Test Your Knowledge #1
	(ii)	analyze individual interests Narrative: Ch. 7 p. 133 Entrepreneurial Concepts, Ch. 21 p. 424 Interests and Skills Activity: Ch. 7 Create and Design, Ch 21 Read and Write, Ch. 21 Test Your Knowledge #1
(B)	determine individual talents, abilities, and skills	
	(i)	determine individual talents Narrative: Ch. 21 p. 424 Interests and Skills Activity: Ch 21 Read and Write, Ch. 21 Test Your Knowledge #1
	(ii)	determine individual abilities Narrative: Ch. 21 p. 424 Interests and Skills Activity: Ch 21 Read and Write, Ch. 21 Test Your Knowledge #1
	(iii)	determine individual skills Narrative: Ch. 21 p. 424 Interests and Skills Activity: Ch 21 Read and Write, Ch. 21 Test Your Knowledge #1
(C)	develop an individual career plan	
	(i)	develop an individual career plan Narrative: Ch. 21 Crafting a Career Plan p. 433 Activity: Ch 21 Create and Design, Ch. 21 Test Your Knowledge #2