




Legend:

X The standard is clearly addressed by program activities.

- This standard potentially could be addressed as part the program either by actions that the coach or teacher takes when working with the students or by conditions established by the program.

		 FIRST TECH CHALLENGE	 FIRST TECH CHALLENGE Class Pack	 FIRST ROBOTICS COMPETITION	
Business and Information Technology – Middle Level DOE Code: 0494 Recommended Grade Level: Grade 6-8					
Part One	Computer Technology				
Domain	Concepts and Operations				
Core Standard 1	Students demonstrate functional understanding of technology concepts, systems, and their interactivity.				
	MLB-1.1	Differentiate among computer types, history, and purpose of computer systems	x	-	-
	MLB-1.2	Distinguish between the different types of memory and storage and their uses and purpose	-	-	-
	MLB-1.3	Differentiate among operating systems, application software, and the Internet	-	-	-
	MLB-1.4	Explain the information processing cycle	-	-	x
	MLB-1.5	Apply concepts of file management to organize and manage files and folders; including backing up files.	-	-	-
	MLB-1.6	Critique a variety of current and emerging technologies used by society	-	x	-
Core Standard 2	Students use hardware and software components and understand the use of input and output devices.				
	MLB-2.1	Use hardware devices and software applications to enhance learning	x	x	x
	MLB-2.2	Evaluate and select appropriate input/output devices and storage devices	x	x	x
	MLB-2.3	Demonstrate effective keyboarding techniques to improve proficiency and apply these skills on multiple devices	x	x	x
	MLB-2.4	Diagnose problems that may arise with hardware and software and identify solutions for common issues	x	x	x
Domain	Tool for Creativity, Innovation, and Productivity				
Core Standard 3	Students use technology as a tool to enhance learning and creativity and to increase productivity in developing their projects.				
	MLB-3.1	Demonstrate operations common to software applications	x	x	x
	MLB-3.2	Use word processing software to compose, design, edit, and print	x	x	x

	MLB-3.3	Use spreadsheet software to calculate, graph, organize, and present data	x	x	x
	MLB-3.4	Design presentations and projects using text, sounds, images, video, and animation	x	x	x
	MLB-3.5	Explore coding and its function in creating software applications	x	x	x
	MLB-3.6	Integrate data between word processing, spreadsheet, presentation, and internet applications	-	-	-
Domain	Information Research Tool				
	Students gather, evaluate, use, and cite information from computer technology sources				
Core Standard 4	MLB-4.1	Identify various types of online resources and their intended function	-	-	-
	MLB-4.2	Review digital content for quality, credibility, validity, and up-to-date information	-	-	-
	MLB-4.3	Use technology to investigate a variety of sources and media for research purposes	-	-	-
	MLB-4.4	Identify various browser features, such as menus and tools, which could be used to access information efficiently on the Internet	-	-	-
	MLB-4.5	Use various search techniques to refine outcomes for research	-	-	-
	MLB-4.6	Cite sources of information used in a proper format	x	-	x
Domain	Digital Citizenship				
	Students integrate technology in a social, legal, ethical, and safe manner to be lifelong digital citizens.				
Core Standard 5	MLB-5.1	Differentiate between appropriate technology uses in various environments such as school, home, and work	x	x	x
	MLB-5.2	Discuss and explain responsible uses of technology and the consequences for choosing to participate in illegal activities such as plagiarism, piracy, and violating copyright/fair use	x	x	x
	MLB-5.3	Identify the characteristics and consequences of cyberbullying	x	x	x
	MLB-5.4	Synthesize and demonstrate rules of digital netiquette	-	-	-
	MLB-5.5	Investigate the risks and practice safe, legal, ethical, and responsible use of technology and the Internet	-	-	-
	MLB-5.6	Create strong passwords, learn strategies to avoid scams and schemes, and analyze privacy policies	-	-	-
	MLB-5.7	Recognize and explain the need for protecting privacy in order to preserve an online digital footprint	-	-	-
	MLB-5.8	Investigate the risks of improper use of technology as it relates to the health and wellness of the user	-	-	-
Part Two	Career Exploration				

Domain	Exploring Self				
Core Standard 6	Students analyze personal characteristics to create a personal profile				
	MLB-6.1	Identify personal and family morals, values, and ethics	-	-	-
	MLB-6.2	Explore and describe personal aptitudes, interests, and skills through the use of personal assessments	-	-	-
	MLB-6.3	Explore personal priorities and goals for life and career	-	x	-
	MLB-6.4	Examine learning style preferences and determine their application to school and work	-	x	-
Domain	Exploring College and Careers				
Core Standard 7	Students use Career Clusters, Indiana’s College and Career Pathways, and other sources to explore careers				
	MLB-7.1	Locate, understand and use career information and resources to set short and long term goals for career decisions	-	x	-
	MLB-7.2	Identify economic, global, technology, and social trends in the workplace and labor market	-	x	-
	MLB-7.3	Describe the various careers in each of the Career Clusters	-	x	-
	MLB-7.4	Describe post-secondary educational options such as technical programs, military, apprenticeships, two-year and four-year colleges, and resources for obtaining postsecondary education and training	-	x	-
Domain	Decision-Making and Planning				
Core Standard 8	Students apply critical and creative thinking to make decisions, create flexible career plans, and solve problems, to succeed in their secondary and college education, as well as in their careers and life.				
	MLB-8.1	Demonstrate components of critical and creative thinking when putting life choices and careers through the decision-making process	x	x	x
	MLB-8.2	Identify choices, options and consequences of life and career decisions	x	x	x
	MLB-8.3	Identify skills needed for career choices and match to personal abilities and interest	x	x	x
	MLB-8.4	Explain the impact of selected careers on lifestyle goals	x	x	x
	MLB-8.5	Review and update a high school graduation plan	x	x	x
	MLB-8.6	Interpret results of a self-assessment inventory to create an initial education and career plan	-	-	-
Domain	Personal and Employability Skills				
Core Standard 9	Students demonstrate personal skills and employability needed for success in school, life and career.				
	MLB-9.1	Demonstrate habits of mind such as taking responsible risks, thinking and communicating with clarity and precision, questioning and posing problems, and thinking independently			

MLB-9.2	Demonstrate personal and basic employability skills such as attendance, integrity, meeting deadlines, and dependability			
MLB-9.3	Demonstrate appreciation of diversity in school, life and career settings			
MLB-9.4	Demonstrate personal leadership skills to lead and inspire others, accomplish common goals, and function effectively in school, life and career settings			
MLB-9.5	Demonstrate school, life and career self-management skills related to responsibility and work ethic			
MLB-9.6	Demonstrate what good principles of technology and digital citizenship would look like in the workplace			
MLB-9.7	Discuss standards for personal appearance, attire, grooming, and etiquette appropriate for specific school and life settings			

Part Three	Personal Financial Responsibility
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Domain	Financial Responsibility and Decision Making
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	Students demonstrate management of individual and family finances by applying reliable information and systematic decision-making
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Core Standard 10	MLB-10.1	Describe the benefits of financial responsibility and the costs of financial irresponsibility			
	MLB-10.2	Analyze the accuracy and helpfulness of financial information gathered from a variety of print and online resources			
	MLB-10.3	Identify the primary state and federal consumer protection agencies			
	MLB-10.4	Describe unfair or deceptive business practices that are forbidden by consumer protection laws			
	MLB-10.5	Set measurable short-term and intermediate/medium-term financial goals			
	MLB-10.6	Apply systematic decision-making to short-term and intermediate/medium-term goals			
	MLB-10.7	Explain benefits of discussing important financial matters with household members and/or financial personnel			
	MLB-10.8	Identify factors that determine differing values and attitudes about money			
	MLB-10.9	Describe the possible consequences of disclosing particular types of personal information to others			

Domain	Relating Income and Careers				
Core Standard 11	Students analyze how education, income, career, and life choices relate to achieving financial goals.				
	MLB-11.1	Explain how an individual’s interests, knowledge, abilities, and career choices affect income			
	MLB-11.2	Identify jobs children and youth can legally obtain at certain ages to earn money			
	MLB-11.3	Give examples of sources of income in addition to wages or salary			
	MLB-11.4	Describe taxable income and employee benefits			
	MLB-11.5	Differentiate between gross, net and disposable income			
	MLB-11.6	Describe the items commonly included in payroll deductions			
Domain	Planning and Money Management				
Core Standard 12	Students manage money effectively by developing financial goals and budgets.				
	MLB-12.1	Illustrate allocation of a weekly allowance among the financial goals of spending, saving, investing, and sharing/giving			
	MLB-12.2	Explain basic budget categories, including income, taxes, planned savings and fixed and variable expenses			
	MLB-12.3	Describe how a future short-term or long-term financial goal will be included in a budget			
	MLB-12.4	Identify and organize product information, warranties, and financial documents needed for retention			
	MLB-12.5	Compare the advantages and disadvantages of different payment methods			
	MLB-12.6	Demonstrate steps in establishing and maintaining financial accounts			
	MLB-12.7	Investigate financial assistance for post-secondary education			
	MLB-12.8	Explain external factors that influence spending decisions			
	MLB-12.9	Describe how charitable giving can fit into a personal budget and how to determine appropriate percentages for giving			
Domain	Managing Credit and Debt				
Core Standard 13	Students manage credit and debt to remain both creditworthy and financially secure.				
	MLB-13.1	Compare advantages and disadvantages of various types of credit			
	MLB-13.2	Explain factors to consider when using credit or obtaining a loan			
	MLB-13.3	Determine the total cost of repaying credit and loans			

	MLB-13.4	Explain the value of credit reports and a positive credit history to consumers, borrowers and lenders			
	MLB-13.5	Identify possible credit and debt problems, their consequences, and ways to avoid them			
	MLB-13.6	Discuss the rights, responsibilities, and protections of buyers and sellers under consumer credit laws			
Domain	Risk Management and Insurance				
Core Standard 14	Students analyze the features of insurance, its role in balancing risk, and benefits in financial planning.				
	MLB-14.1	Explain the relationship between risk and insurance			
	MLB-14.2	Identify the main features of insurance such as premiums, deductibles, and transfer of risk			
	MLB-14.3	Describe the need for and value of health, property, life, disability and liability insurance in managing risk			
Domain	Saving and Investing				
Core Standard 15	Students analyze saving and investing for short-term needs and building long-term financial security and wealth.				
	MLB-15.1	Describe the advantages and disadvantages of saving for short-term and medium-term financial goals			
	MLB-15.2	Explain the difference between simple and compound interest			
	MLB-15.3	Compare the advantages and disadvantages between saving and investing			
	MLB-15.4	Research and track publicly traded stock, record daily market values, and indicate the gains or losses between two specified dates			
	MLB-15.5	Define benefits and limits of federal deposit insurance			
Part Four	Basic Business				
Domain	Business Communications				
Core Standard 16	Students apply concepts of effective business communications to their interpersonal relationships and to their academic, as well as professional, documents and correspondence.				
	MLB-16.1	Identify and create personal and business correspondence which displays: clarity, professionalism, relevancy, and confidentiality			
	MLB-16.2	Practice and exhibit active listening techniques			
	MLB-16.3	Differentiate between types of internal and external communications and how they should be designed and distributed			
	MLB-16.4	Demonstrate the concepts of collaboration with peers as they relate to successful communication both personally and professionally			

MLB-16.5	Display appropriate and professional techniques in public speaking as well as in written and nonverbal communications			
MLB-16.6	Create, format, edit, store, and distribute academic, professional, and personal documents for the appropriate audience, purpose, and situation			

Domain	Marketing			
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Core Standard 17	Students apply the concepts of marketing functions, plans, and strategies to develop appropriate methods to serve potential customers.			
	MLB-17.1	Define marketing and its impact on society		
	MLB-17.2	Distinguish between the different types of marketing and their importance in successful product marketing		
	MLB-17.3	Identify the four P's of the marketing mix		
	MLB-17.4	Explain how businesses compete in the marketplace		
	MLB-17.5	Identify how customers' input and feedback can influence a business's marketing strategy		
	MLB-17.6	Create promotional materials for a new or existing product or service		
	MLB-17.7	Define potential target markets for a specific product or service		
	MLB-17.8	Design a new product or service, or find a way to improve an existing product or service, to meet customer wants		
	MLB-17.9	Discuss the importance of businesses giving back to the community		

Domain	Entrepreneurship			
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Core Standard 18	Students apply concepts of economic conditions, market competitions, financing strategies, innovation and opportunity recognition; while integrating their knowledge of business management and marketing principles, in order to design and develop a successful new venture.			
	MLB-18.1	Define entrepreneurship and examine its history in the United States		
	MLB-18.2	Identify the personal traits/behaviors of a successful entrepreneur		
	MLB-18.3	Identify the types of entrepreneurial ventures, traditional as well as those online		
	MLB-18.4	Define the role of a business plan		
	MLB-18.5	Identify the three main types of business ownership and the advantages and disadvantages of each		
	MLB-18.6	Recognize the influence of demographics and the economy on entrepreneurial ventures		
	MLB-18.7	Identify revenue, expenses, and profit as they relate to a business's financial goal		



Indiana Department of Education
Business and Information Technology – Middle Level
Standards Alignment