

A	Entrepreneurial Processes Understands concepts and processes associated with successful entrepreneurial performance
Discovery	
A.01	Explain the need for entrepreneurial discovery
A.02	Discuss entrepreneurial discovery processes
A.03	Assess global trends and opportunities
A.04	Determine opportunities for venture creation
A.05	Assess opportunities for venture creation
A.06	Describe idea-generation methods
A.07	Generate venture ideas
A.08	Determine feasibility of ideas
Concept Development	
A.09	Describe entrepreneurial planning considerations
A.10	Explain tools used by entrepreneurs for venture planning
A.11	Assess start-up requirements
A.12	Assess risks associated with venture
A.13	Describe external resources useful to entrepreneurs during concept development
A.14	Assess the need to use external resources for concept development
A.15	Describe strategies to protect intellectual property
A.16	Use components of a business plan to define venture idea
Resourcing	
A.17	Distinguish between debt and equity financing for venture creation
A.18	Describe processes used to acquire adequate financial resources for venture creation/start-up
A.19	Select sources to finance venture creation/start-up
A.20	Explain factors to consider in determining a venture's human-resource needs
A.21	Describe considerations in selecting capital resources
A.22	Acquire capital resources needed for the venture
A.23	Assess the costs/benefits associated with resources
Actualization	
A.24	Use external resources to supplement entrepreneur's expertise
A.25	Explain the complexity of business operations
A.26	Evaluate risk-taking opportunities
A.27	Explain the need for business systems and procedures
A.28	Describe the use of operating procedures
A.29	Explain methods/processes for organizing work flow
A.30	Develop and/or provide product/service
A.31	Use creativity in business activities/decisions
A.32	Explain the impact of resource productivity on venture success
A.33	Create processes for ongoing opportunity recognition
A.34	Adapt to changes in business environment
Harvesting	
A.35	Explain the need for continuation planning
A.36	Describe methods of venture harvesting
A.37	Evaluate options for continued venture involvement
A.38	Develop exit strategies
B	Entrepreneurial Traits/Behaviors Understands the personal traits/behaviors associated with successful entrepreneurial performance
Leadership	
B.01	Demonstrate honesty and integrity
B.02	Demonstrate responsible behavior
B.03	Demonstrate initiative
B.04	Demonstrate ethical work habits
B.05	Exhibit passion for goal attainment
B.06	Recognize others' efforts

B.07	Lead others using positive statements
B.08	Develop team spirit
B.09	Enlist others in working toward a shared vision
B.10	Share authority, when appropriate
B.11	Value diversity
Personal Assessment	
B.12	Describe desirable entrepreneurial personality traits
B.13	Determine personal biases and stereotypes
B.14	Determine interests
B.15	Evaluate personal capabilities
B.16	Conduct self-assessment to determine entrepreneurial potential
Personal Management	
B.17	Maintain positive attitude
B.18	Demonstrate interest and enthusiasm
B.19	Make decisions
B.20	Develop an orientation to change
B.21	Demonstrate problem-solving skills
B.22	Assess risks
B.23	Assume personal responsibility for decisions
B.24	Use time-management principles
B.25	Develop tolerance for ambiguity
B.26	Use feedback for personal growth
B.27	Demonstrate creativity
B.28	Set personal goals
C	Business Foundations Understands fundamental business concepts that affect business decision making
Business Concepts	
C.01	Explain the role of business in society
C.02	Describe types of business activities
C.03	Explain types of businesses
C.04	Explain opportunities for creating added value
C.05	Determine issues and trends in business
C.06	Describe crucial elements of a quality culture/continuous quality improvement
C.07	Describe the role of management in the achievement of quality
C.08	Explain the nature of managerial ethics
C.09	Describe the need for and impact of ethical business practices
Business Activities	
C.10	Explain marketing management and its importance in a global economy
C.11	Describe marketing functions and related activities
C.12	Explain the nature and scope of operations management
C.13	Explain the concept of management
C.14	Explain the concept of financial management
C.15	Explain the concept of human resource management
C.16	Explain the concept of risk management
C.17	Explain the concept of strategic management
D	Communications and Interpersonal Skills Understands concepts, strategies, and systems needed to interact effectively with others
Fundamentals of Communication	
D.01	Explain the nature of effective communications
D.02	Apply effective listening skills
D.03	Use proper grammar and vocabulary
D.04	Reinforce service orientation through communication
D.05	Explain the nature of effective verbal communications
D.06	Address people properly
D.07	Handle telephone calls in a businesslike manner
D.08	Make oral presentations

D.09	Explain the nature of written communications
D.10	Write business letters
D.11	Write informational messages
D.12	Write inquiries
D.13	Write persuasive messages
D.14	Prepare simple written reports
D.15	Prepare complex written reports
D.16	Use communications technologies/systems (e.g., e-mail, faxes, voice mail, cell phones, etc.)
Staff Communications	
D.17	Follow directions
D.18	Explain the nature of staff communication
D.19	Give directions for completing job tasks
D.20	Conduct staff meetings
Ethics in Communication	
D.21	Respect the privacy of others
D.22	Explain ethical considerations in providing information
Group Working Relationships	
D.23	Treat others fairly at work
D.24	Develop cultural sensitivity
D.25	Foster positive working relationships
D.26	Participate as a team member
Dealing with Conflict	
D.27	Demonstrate self-control
D.28	Show empathy for others
D.29	Use appropriate assertiveness
D.30	Demonstrate negotiation skills
D.31	Handle difficult customers/clients
D.32	Interpret business policies to customers/clients
D.33	Handle customer/client complaints
D.34	Explain the nature of organizational change
D.35	Describe the nature of organizational conflict
D.36	Explain the nature of stress management
E	Digital Skills Understands concepts and procedures needed for basic computer operations
Computer Basics	
E.01	Use basic computer terminology
E.02	Apply basic commands of operating system software
E.03	Employ desktop operating skills
E.04	Determine file organization
E.05	Demonstrate system utilities for file management
E.06	Compress or alter files
E.07	Use reference materials to access information
E.08	Use menu systems
E.09	Use control panel components
E.10	Access data through various computer drives
Computer Applications	
E.11	Demonstrate basic search skills on the Web
E.12	Evaluate credibility of Internet resources
E.13	Demonstrate file management skills
E.14	Communicate by computer
E.15	Solve routine hardware and software problems
E.16	Operate computer-related hardware peripherals
E.17	Explain the nature of e-commerce
E.18	Describe the impact of the Internet on business
E.19	Develop basic website

F	Economics Understands the economic principles and concepts fundamental to entrepreneurship/small-business ownership
Basic Concepts	
F.01	Distinguish between economic goods and services
F.02	Explain the factors of production
F.03	Explain the concept of scarcity
F.04	Explain the concept of opportunity costs
F.05	Describe the nature of economics and economic activities
F.06	Determine forms of economic utility created by business activities
F.07	Explain the principles of supply and demand
F.08	Describe the concept of price
Cost-Profit Relationships	
F.09	Explain the concept of productivity
F.10	Describe cost/benefit analysis
F.11	Analyze the impact of specialization/division of labor on productivity
F.12	Explain the concept of organized labor and business
F.13	Explain the law of diminishing returns
F.14	Describe the concept of economies of scale
Economic Indicators/Trends	
F.15	Explain measures used to analyze economic conditions
F.16	Explain the nature of the Consumer Price Index
F.17	Explain the concept of Gross Domestic Product
F.18	Determine the impact of business cycles on business activities
Economic Systems	
F.19	Explain the types of economic systems
F.20	Describe the relationship between government and business
F.21	Assess impact of government actions on business ventures
F.22	Explain the concept of private enterprise
F.23	Assess factors affecting a business's profit
F.24	Determine factors affecting business risk
F.25	Explain the concept of competition
F.26	Describe types of market structures
F.27	Determine the impact of small business/entrepreneurship on market economies
International Concepts	
F.28	Explain the nature of international trade
F.29	Describe small-business opportunities in international trade
F.30	Determine the impact of cultural and social environments on world trade
F.31	Explain the impact of exchange rates on trade
F.32	Evaluate influences on a nation's ability to trade
G	Financial Literacy Understands personal money-management concepts, procedures, and strategies
Money Basics	
G.01	Explain forms of financial exchange (cash, credit, debit, etc.)
G.02	Describe functions of money (medium of exchange, unit of measure, store of value)
G.03	Describe the sources of income (wages/salaries, interest, rent, dividends, transfer payments, etc.)
G.04	Recognize types of currency (paper money, coins, banknotes, government bonds, treasury notes, etc.)
G.05	Read and interpret a pay stub
G.06	Explain the time value of money
G.07	Describe costs associated with credit
G.08	Explain legal responsibilities associated with use of money
G.09	Use money effectively
Financial Services	
G.10	Describe services provided by financial institutions

G.11	Explain legal responsibilities of financial institutions
G.12	Explain costs associated with use of financial services
G.13	Select financial institution
G.14	Open account with financial institution
Personal Money Management	
G.15	Set financial goals
G.16	Develop savings plan
G.17	Develop spending plan
G.18	Make deposits to and withdrawals from account
G.19	Complete financial instruments
G.20	Maintain financial records
G.21	Read and reconcile financial statements
G.22	Correct errors with account
G.23	Explain types of investments
G.24	Invest money
G.25	Develop personal budget
G.26	Build positive credit history
G.27	Improve/repair creditworthiness
H	Professional Development Understands concepts and strategies needed for career exploration, development, and growth
Career Planning	
H.01	Evaluate career opportunities based on current/future economy
H.02	Analyze employer expectations in the business environment
H.03	Explain the rights of workers
H.04	Select and use sources of career information
H.05	Determine tentative occupational interest
H.06	Explain employment opportunities in entrepreneurship
H.01	Evaluate career opportunities based on current/future economy
H.02	Analyze employer expectations in the business environment
H.03	Explain the rights of workers
H.04	Select and use sources of career information
H.05	Determine tentative occupational interest
H.06	Explain employment opportunities in entrepreneurship
Job-Seeking Skills	
H.07	Utilize job-search strategies
H.08	Complete a job application
H.09	Interview for a job
H.10	Write a follow-up letter after job interviews
H.11	Write a letter of application
H.12	Prepare a résumé
H.13	Describe techniques for obtaining work experience (e.g., volunteer activities, internships)
H.14	Explain the need for ongoing education as a worker
H.15	Explain possible advancement patterns for jobs
H.16	Determine skills needed to enhance career progression
H.17	Utilize resources that can contribute to professional development (e.g., trade journals/ periodicals, professional/trade associations, classes/seminars, trade shows, and mentors)
H.18	Use networking techniques for professional growth
I	Financial Management Understands the financial concepts and tools used in making business decisions
Accounting	
I.01	Explain accounting standards (GAAP)
I.02	Prepare estimated/projected income statement
I.03	Estimate cash-flow needs
I.04	Prepare estimated/projected balance sheet

I.05	Calculate financial ratios
I.06	Determine and deposit payroll taxes
I.07	File tax returns
Finance	
I.08	Explain the purposes and importance of obtaining business credit
I.09	Make critical decisions regarding acceptance of bank cards
I.10	Establish credit policies
I.11	Develop billing and collection policies
I.12	Describe use of credit bureaus
I.13	Explain the nature of overhead/operating expenses
I.14	Determine financing needed to start a business
I.15	Determine risks associated with obtaining business credit
I.16	Explain sources of financial assistance
I.17	Explain loan evaluation criteria used by lending institutions
I.18	Select sources of business loans
I.19	Establish relationship with financial institutions
I.20	Complete loan application process
I.21	Determine business's value
Money Management	
I.22	Establish financial goals and objectives
I.23	Develop and monitor budget
I.24	Manage cash flow
I.25	Explain the nature of capital investment
I.26	Foster a positive financial reputation
I.27	Implement procedures for managing debt
I.28	Supervise/implement regular accounting procedures and financial reports
J	Human Resource Management Understands the concepts, systems, and strategies needed to acquire, motivate, develop, and terminate staff
Organizing	
J.01	Develop a personnel organizational plan
J.02	Develop job descriptions
J.03	Develop compensation plan/incentive systems
J.04	Organize work/projects for others
J.05	Delegate responsibility for job tasks
Staffing	
J.06	Determine hiring needs
J.07	Recruit new employees
J.08	Screen job applications/résumés
J.09	Interview job applicants
J.10	Select new employees
J.11	Negotiate new-hire's salary/pay
J.12	Dismiss/Fire employee
Training/Development	
J.13	Orient new employees (management's role)
J.14	Conduct training class/program
J.15	Coach employees
Morale/Motivation	
J.16	Exhibit leadership skills
J.17	Encourage team building
J.18	Recognize/reward employees
J.19	Handle employee complaints/grievances
J.20	Ensure equitable opportunities for employees
J.21	Build organizational culture
Assessment	
J.22	Assess employee morale
J.23	Provide feedback on work efforts
J.24	Assess employee performance
J.25	Take remedial action with employee
J.26	Conduct exit interviews

K	Information Management Understands the concepts, systems, and tools needed to access, process, maintain, evaluate, and disseminate information for business decision-making
Record keeping	
K.01	Explain the nature of business records
K.02	Maintain record of daily financial transactions
K.03	Record and report sales tax
K.04	Develop payroll record keeping system
K.05	Maintain personnel records
K.06	Maintain customer records
Technology	
K.07	Explain ways that technology impacts business
K.08	Use Personal Information Management/Productivity applications
K.09	Demonstrate writing/publishing applications
K.10	Demonstrate presentation applications
K.11	Demonstrate database applications
K.12	Demonstrate spreadsheet applications
K.13	Demonstrate collaborative/groupware applications
K.14	Determine venture's technology needs
Information Acquisition	
K.15	Select sources of business start-up information
K.16	Conduct an environmental scan to obtain marketing information
K.17	Monitor internal records for marketing information
K.18	Determine underlying customer needs/frustrations
L	Marketing Management Understands the concepts, processes, and systems needed to determine and satisfy customer needs/wants/expectations, meet business goals/objectives, and create new product/service ideas
Product/Service Creation	
L.01	Explain methods to generate a product/service idea
L.02	Generate product/service ideas
L.03	Assess opportunities for import substitution
L.04	Determine product/service to fill customer need
L.05	Determine initial feasibility of product/service ideas
L.06	Plan product/service mix
L.07	Choose product name
L.08	Determine unique selling proposition
L.09	Develop strategies to position product/service
L.10	Build brand/image
L.11	Evaluate customer experience
Marketing-information Management	
L.12	Explain the concept of market and market identification
L.13	Describe the role of situation analysis in the marketing-planning process
L.14	Determine market segments
L.15	Select target markets
L.16	Conduct market analysis
L.17	Explain the concept of marketing strategies
L.18	Describe the nature of marketing planning
L.19	Set a marketing budget
L.20	Develop marketing plan
L.21	Monitor and evaluate performance of marketing plan
Promotion	
L.22	Describe the elements of the promotional mix
L.23	Calculate advertising media costs
L.24	Select advertising media
L.25	Prepare a promotional budget
L.26	Develop promotional plan for a business
L.27	Write a news release

L.28	Obtain publicity
L.29	Select sales-promotion options
L.30	Write sales letters
L.31	Manage online (www) activities
L.32	Evaluate effectiveness of advertising
Pricing	
L.33	Calculate breakeven point
L.34	Explain factors affecting pricing decisions
L.35	Establish pricing objectives
L.36	Select pricing strategies
L.37	Set prices
L.38	Adjust prices to maximize profitability
Selling	
L.39	Acquire product information for use in selling
L.40	Analyze product information to identify product features and benefits
L.41	Prepare for the sales presentation
L.42	Establish relationship with client/customer
L.43	Determine customer/client needs
L.44	Determine customer's buying motives for use in selling
L.45	Differentiate between consumer and organizational buying behavior
L.46	Recommend specific product
L.47	Convert customer/client objections into selling points
L.48	Close the sale
L.49	Demonstrate suggestion selling
L.50	Plan follow up strategies for use in selling
L.51	Process sales documentation
L.52	Prospect for customers
L.53	Plan strategies for meeting sales quotas
L.54	Analyze sales reports
L.55	Train staff to support sales efforts
L.56	Analyze technology for use in the sales function
L.57	Manage online sales process
M	Operations Management Understands the processes and systems implemented to facilitate daily business operations.
Business Systems	
M.01	Plan business layout
M.02	Determine equipment needs
M.03	Document business systems and procedures
M.04	Establish operating procedures
M.05	Develop project plans
M.06	Analyze business processes and procedures
M.07	Implement quality improvement techniques
M.08	Evaluate productivity of resources
M.09	Manage computer-based operating systems
Channel Management	
M.10	Select business location
M.11	Select distribution channels
M.12	Develop and implement order-fulfillment processes
Purchasing/Procurement	
M.13	Explain the buying process
M.14	Describe the nature of buyer reputation and vendor relationships
M.15	Establish company buying/purchasing policies
M.16	Conduct vendor search

M.17	Choose vendors
M.18	Negotiate contracts with vendors
M.19	Place orders
M.20	Barter with vendors
Daily Operations	
M.21	Schedule staff
M.22	Maintain inventory of products/supplies
M.23	Organize shipping/receiving
N	Risk Management Understands the concepts, strategies, and systems that businesses implement and enforce to minimize loss
Business Risks	
N.01	Describe types of business risk
N.02	Determine ways that small businesses protect themselves against loss
N.03	Establish controls to prevent embezzlement/theft
N.04	Establish and implement systems to protect customer/employee confidentiality
N.05	Determine business's liabilities
N.06	Explain ways to transfer risk
N.07	Obtain insurance coverage
N.08	Develop strategies to protect computer (digital) data
N.09	Develop security policies and procedures
N.10	Establish safety policies and procedures
N.11	Protect assets from creditors
N.12	Establish parameters for staff responsibility/authority
N.13	Develop continuation plan
Legal Considerations	
N.14	Explain legal issues affecting businesses
N.15	Protect intellectual property rights
N.16	Select form of business ownership
N.17	Obtain legal documents for business operations
N.18	Describe the nature of businesses' reporting requirements
N.19	Adhere to personnel regulations
N.20	Implement workplace regulations (including OSHA, ADA)
N.21	Develop strategies for legal/government compliance
O	Strategic Management Understands the processes, strategies, and systems needed to guide the overall business organization
Planning	
O.01	Conduct SWOT analysis
O.02	Conduct competitive analysis
O.03	Evaluate business acquisition options
O.04	Develop company goals/objectives
O.05	Develop business mission
O.06	Forecast income/sales
O.07	Conduct break-even analysis
O.08	Develop action plans
O.09	Develop business plan
Controlling	
O.10	Use budgets to control operations
O.11	Develop expense-control plans
O.12	Analyze cash-flow patterns
O.13	Interpret financial statements
O.14	Analyze operating results in relation to budget/industry
O.15	Track performance of business plan

Appendix A: NGSS Framework Reference

* The following is adapted from: National Research Council (2011). A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas. Committee on a Conceptual Framework for New K-12 Science Education Standards.

Board on Science Education, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academy Press.

A Framework for K-12 Science Education: Practices, Core Ideas, and Crosscutting Concepts (Framework) recommends science education in grades K-12 be built around three major dimensions: scientific and engineering practices; crosscutting concepts that unify the study of science and engineering through their common application across fields; and core ideas in the major disciplines of natural science. The purpose of this appendix is to describe the second dimension—crosscutting concepts—and to explain its role in the Next Generation Science Standards (NGSS).

The eight practices of science and engineering that the Framework identifies as essential for all students to learn and describes in detail are listed below:

1. Asking questions (for science) and defining problems (for engineering)
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data
5. Using mathematics and computational thinking
6. Constructing explanations (for science) and designing solutions (for engineering)
7. Engaging in argument from evidence
8. Obtaining, evaluating, and communicating information

The Framework identifies seven crosscutting concepts that bridge disciplinary boundaries, uniting core ideas throughout the fields of science and engineering. Their purpose is to help students deepen their understanding of the disciplinary core ideas (pp. 2 and 8), and develop a coherent and scientifically based view of the world (p. 83.) The seven crosscutting concepts presented in Chapter 4 of the Framework are as follows:

1. Patterns. Observed patterns of forms and events guide organization and classification, and they prompt questions about relationships and the factors that influence them.
2. Cause and effect: Mechanism and explanation. Events have causes, sometimes simple, sometimes multifaceted. A major activity of science is investigating and explaining causal relationships and the mechanisms by which they are mediated. Such mechanisms can then be tested across given contexts and used to predict and explain events in new contexts.
3. Scale, proportion, and quantity. In considering phenomena, it is critical to recognize what is relevant at different measures of size, time, and energy and to recognize how changes in scale, proportion, or quantity affect a system's structure or performance.

4. Systems and system models. Defining the system under study—specifying its boundaries and making explicit a model of that system—provides tools for understanding and testing ideas that are applicable throughout science and engineering.
5. Energy and matter: Flows, cycles, and conservation. Tracking fluxes of energy and matter into, out of, and within systems helps one understand the systems' possibilities and limitations.
6. Structure and function. The way in which an object or living thing is shaped and its substructure determine many of its properties and functions.
7. Stability and change. For natural and built systems alike, conditions of stability and determinants of rates of change or evolution of a system are critical elements of study