Introduction to Logistics
CURRICULUM
5.0 Credits

Unit Four
Introduction to Logistics

Course Description

This foundational course engages students in contextual problems that introduce them to the concepts of supply chains, warehouse location, contingency planning, in-sourcing and out-sourcing decisions, and expanding existing supply chains. Students will explore these concepts to learn how professionals examine options to maximize the use of resources in establishing physical networks.

This is the first course in the Global Logistics and the Supply Chain Management sequence. This course is a prerequisite for participation in other AC Global Logistics and Supply Chain Management courses. There are no prerequisites for participation in this class.
# Introduction to Logistics

## Pacing Guide

<table>
<thead>
<tr>
<th>Unit</th>
<th>Topic</th>
<th>Suggested Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1</td>
<td>Understanding and Management of Supply Chains</td>
<td>approx. 8 weeks</td>
</tr>
<tr>
<td>Unit 2</td>
<td>Determining Distribution Center Locations and Managing Inventory</td>
<td>approx. 11 weeks</td>
</tr>
<tr>
<td>Unit 3</td>
<td>Designing Warehouses</td>
<td>approx. 6 weeks</td>
</tr>
<tr>
<td>Unit 4</td>
<td>Operation Logistics (Managing Supply Disruptions and Contingency Plan)</td>
<td>approx. 11 weeks</td>
</tr>
</tbody>
</table>
## Educational Technology Standards


### Technology Operations and Concepts

- Collaborate in online courses, learning communities, social networks or virtual worlds to discuss a resolution to a problem or issue.  
  **Example from unit:** Students will be learning from the Southern Regional Education Board (SREB) curriculum which is an on-line program.

### Creativity and Innovation

- Apply previous content knowledge by creating presentations after completing each unit.  
  **Example from unit:** Southern Regional Education Board (SREB) curriculum which is an on-line program.

- Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs.  
  **Example from unit:** Students need to understand system limitations to effectively make use of online course.

### Critical Thinking, Problem Solving, Decision Making

- Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.  
  **Example from unit:** Students will be learning Sketch It from SREB that will allow them to create a virtual warehouse.
Career Ready Practices

Career Ready Practices describe the career-ready skills that all educators in all content areas should seek to develop in their students. They are practices that have been linked to increase college, career, and life success. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

<table>
<thead>
<tr>
<th>CRP2. Apply appropriate academic and technical skills.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation.</td>
</tr>
<tr>
<td><strong>Example form unit:</strong> In this unit, students will locate a site for a warehouse, then design a warehouse, manage inventory and build a contingency plan. All that is relevant for this career pathway.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CRP4. Communicate clearly and effectively and with reason.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others’ time. They are excellent writers; they master conventions, word choice, and organization, and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome.</td>
</tr>
<tr>
<td><strong>Example form unit:</strong> Students will be creating presentations that will be required to present to industry professionals, administration and others from outside the classroom. Students will be working in teams and must communicate clearly to complete assignments and projects.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CRP7. Employ valid and reliable research strategies.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career-ready individuals are discerning in accepting and using new information to make decisions, change practices or inform</td>
</tr>
</tbody>
</table>
Career Ready Practices

strategies. They use reliable research process to search for new information. They evaluate the validity of sources when considering the use and adoption of external information or practices in their workplace situation.

**Example form unit:** Students are encouraged to find solutions with coding problems online.

**CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.**
Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others.

**Example form unit:** Students will be working with real-world issues as it relates to disruptions in the supply chain which impacts sales volumes and profit. They will be creating contingency plans to minimize loss.

**CRP11. Use technology to enhance productivity.**
Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.

**Example form unit:** Students will be using word processing, spreadsheet and presentation software to complete projects in the Southern Board Educational Board (SREB) curriculum.
**WIDA Proficiency Levels:** At the given level of English language proficiency, English language learners will process, understand, produce or use:

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
</table>
| 6- Reaching | - Specialized or technical language reflective of the content areas at grade level  
- A variety of sentence lengths of varying linguistic complexity in extended oral or written discourse as required by the specified grade level  
- Oral or written communication in English comparable to proficient English peers |
| 5- Bridging | - Specialized or technical language of the content areas  
- A variety of sentence lengths of varying linguistic complexity in extended oral or written discourse, including stories, essays or reports  
- Oral or written language approaching comparability to that of proficient English peers when presented with grade level material. |
| 4- Expanding | - Specific and some technical language of the content areas  
- A variety of sentence lengths of varying linguistic complexity in oral discourse or multiple, related sentences or paragraphs  
- Oral or written language with minimal phonological, syntactic or semantic errors that may impede the communication, but retain much of its meaning, when presented with oral or written connected discourse, with sensory, graphic or interactive support |
| 3- Developing | - General and some specific language of the content areas  
- Expanded sentences in oral interaction or written paragraphs  
- Oral or written language with phonological, syntactic or semantic errors that may impede the communication, but retain much of its meaning, when presented with oral or written, narrative or expository descriptions with sensory, graphic or interactive support |
| 2- Beginning | - General language related to the content area  
- Phrases or short sentences  
- Oral or written language with phonological, syntactic, or semantic errors that often impede the communication when presented with one to multiple-step commands, directions, or a series of statements with sensory, graphic or interactive support |
| 1- Entering | - Pictorial or graphic representation of the language of the content areas  
- Words, phrases or chunks of language when presented with one-step commands directions, WH-, choice or yes/no questions, or statements with sensory, graphic or interactive support |
# Language Development Supports For English Language Learners
To Increase Comprehension and Communication Skills

## Environment

- Welcoming and stress-free
- Respectful of linguistic and cultural diversity
- Honors students’ background knowledge
- Sets clear and high expectations
- Includes routines and norms
- Is thinking-focused vs. answer-seeking
- Offers multiple modalities to engage in content learning and to demonstrate understanding
- Includes explicit instruction of specific language targets
- Provides participation techniques to include all learners

- Integrates learning centers and games in a meaningful way
- Provides opportunities to practice and refine receptive and productive skills in English as a new language
- Integrates meaning and purposeful tasks/activities that:
  - Are accessible by all students through multiple entry points
  - Are relevant to students’ lives and cultural experiences
  - Build on prior mathematical learning
  - Demonstrate high cognitive demand
  - Offer multiple strategies for solutions
  - Allow for a language learning experience in addition to content

## Sensory Supports*

- Real-life objects (realia) or concrete objects
- Physical models
- Manipulatives
- Pictures & photographs
- Visual representations or models such as diagrams or drawings
- Videos & films
- Newspapers or magazines
- Gestures
- Physical movements
- Music & songs

## Graphic Supports*

- Graphs
- Charts
- Timelines
- Number lines
- Graphic organizers
- Graphing paper

## Interactive Supports*

- In a whole group
- In a small group
- With a partner such as *Turn-and-Talk*
- In pairs as a group (first, two pairs work independently, then they form a group of four)
- In triads
- Cooperative learning structures such as *Think-Pair-Share*
- Interactive websites or software
- With a mentor or coach

## Verbal and Textual Supports

- Labeling
- Students’ native language
- Modeling
- Reiterations
- Paraphrasing
- Summarizing
- Guiding questions
- Clarifying questions
- Probing questions
- Leveled questions such as *What? When? Where? How? Why?*
- Questioning prompts & cues
- Word Banks
- Sentence starters
- Sentence frames
- Discussion frames
- Talk moves, including *Wait Time*

---

BUILDING EQUITY IN YOUR TEACHING PRACTICE

How do the essential questions highlight the connection between the big ideas of the unit and equity in your teaching practice?

**CONTENT INTEGRATION**
Teachers use examples and content from a variety of cultures & groups.
- This unit / lesson is connected to other topics explored with students.
- There are multiple viewpoints reflected in the content of this unit / lesson.
- The materials and resources are reflective of the diverse identities and experiences of students.
- The content affirms students, as well as exposes them to experiences other than their own.

**KNOWLEDGE CONSTRUCTION**
Teachers help students understand how knowledge is created and influenced by cultural assumptions, perspectives & biases.
- This unit / lesson provides context to the history of privilege and oppression.
- This unit / lesson addresses power relationships.
- This unit / lesson helps students to develop research and critical thinking skills.
- This curriculum creates windows and mirrors* for students.

**PREJUDICE REDUCTION**
Teachers implement lessons and activities to assert positive images of ethnic groups & improve intergroup relations.
- This unit / lesson helps students question and unpack biases & stereotypes.
- This unit / lesson helps students examine, research and question information and sources.
- The curriculum encourages discussion and understanding about the groups of people being represented.
- This unit / lesson challenges dominant perspectives.

**EQUITABLE PEDAGOGY**
The instruction has been modified to meet the needs of each student.
- Students feel respected and their cultural identities are valued.
- Additional supports have been provided for students to become successful and independent learners.
- Opportunities are provided for students to reflect on their learning and provide feedback.

**EMPOWERING SCHOOL CULTURE**
Using the other four dimensions to create a safe and healthy educational environment for all.
- There are opportunities for students to connect with the community.
- My classroom is welcoming and supportive for all students.
- I am aware of and sensitive to the needs of my students and their families.
- There are effective parent communication systems established. Parents can talk to me about issues as they arise in my classroom.

Culturally Relevant Pedagogy Examples

- **Relationships:**
  - Learn about your students’ individual cultures.
  - Adapt your teaching to the way your students learn.
  - Develop a connection with challenging students.
  - Communicate and work with parents/guardians on a regular basis (email distribution, newsletter, phone calls, notes, meetings, etc.).

- **Curriculum:**
  - Incorporate student-centered stories, vocabulary and examples.
  - Incorporate relatable aspects of students’ lives.
  - Create lessons that connect the content to your students’ culture and daily lives.
  - Incorporate instructional materials that relate to a variety of cultures.

- **Instructional Delivery:**
  - Establish an interactive dialogue to engage all students.
  - Continuously interact with students and provide frequent feedback.
  - Use frequent questioning as a means to keep students involved.
  - Intentionally address visual, tactile, and auditory learners.
  - Present relatable real world problems.
<table>
<thead>
<tr>
<th></th>
<th>Differentiated Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time/General</strong></td>
<td></td>
</tr>
<tr>
<td>Extra time for assigned tasks</td>
<td></td>
</tr>
<tr>
<td>Adjust length of assignment</td>
<td></td>
</tr>
<tr>
<td>Timeline with due dates for reports and projects</td>
<td></td>
</tr>
<tr>
<td>Communication system between home and school</td>
<td></td>
</tr>
<tr>
<td>Provide lecture notes/assignments, and tutorials outline</td>
<td></td>
</tr>
<tr>
<td><strong>Processing</strong></td>
<td></td>
</tr>
<tr>
<td>Extra Response time</td>
<td></td>
</tr>
<tr>
<td>Have students verbalize steps</td>
<td></td>
</tr>
<tr>
<td>Repeat, clarify or reword directions</td>
<td></td>
</tr>
<tr>
<td>Mini-breaks between tasks</td>
<td></td>
</tr>
<tr>
<td>Provide a warning for transitions</td>
<td></td>
</tr>
<tr>
<td>Video lessons online</td>
<td></td>
</tr>
<tr>
<td><strong>Comprehension</strong></td>
<td></td>
</tr>
<tr>
<td>Precise step-by-step directions</td>
<td></td>
</tr>
<tr>
<td>Short manageable tasks</td>
<td></td>
</tr>
<tr>
<td>Brief and concrete directions</td>
<td></td>
</tr>
<tr>
<td>Provide immediate feedback</td>
<td></td>
</tr>
<tr>
<td>Small group instruction</td>
<td></td>
</tr>
<tr>
<td>Emphasize multi-sensory learning</td>
<td></td>
</tr>
<tr>
<td><strong>Recall</strong></td>
<td></td>
</tr>
<tr>
<td>Teacher-made checklist</td>
<td></td>
</tr>
<tr>
<td>Use visual graphic organizers</td>
<td></td>
</tr>
<tr>
<td>Reference resources to promote independence</td>
<td></td>
</tr>
<tr>
<td>Visual and verbal reminders</td>
<td></td>
</tr>
<tr>
<td>Graphic organizers</td>
<td></td>
</tr>
<tr>
<td><strong>Assistive Technology</strong></td>
<td></td>
</tr>
<tr>
<td>Computer/whiteboard</td>
<td></td>
</tr>
<tr>
<td>Video lesson</td>
<td></td>
</tr>
<tr>
<td>Spell-checker</td>
<td></td>
</tr>
<tr>
<td>Text speech software</td>
<td></td>
</tr>
<tr>
<td><strong>Tests/Quizzes/Grading</strong></td>
<td></td>
</tr>
<tr>
<td>Adjusted rubrics for projects</td>
<td></td>
</tr>
<tr>
<td>Study guides</td>
<td></td>
</tr>
<tr>
<td>Shortened tests</td>
<td></td>
</tr>
<tr>
<td>Read directions aloud</td>
<td></td>
</tr>
<tr>
<td><strong>Behavior/Attention</strong></td>
<td></td>
</tr>
<tr>
<td>Consistent daily structured routine</td>
<td></td>
</tr>
<tr>
<td>Simple and clear classroom rules</td>
<td></td>
</tr>
<tr>
<td>Frequent feedback</td>
<td></td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td></td>
</tr>
<tr>
<td>Individual daily planner</td>
<td></td>
</tr>
<tr>
<td>Display a written agenda</td>
<td></td>
</tr>
<tr>
<td>Note-taking assistance</td>
<td></td>
</tr>
<tr>
<td>Color code materials</td>
<td></td>
</tr>
<tr>
<td>Differentiated Instruction</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td></td>
</tr>
<tr>
<td>Strategies to Accommodate Students Based on Content-Specific Needs</td>
<td></td>
</tr>
<tr>
<td>• Extra time for assigned tasks</td>
<td></td>
</tr>
<tr>
<td>• Adjust length of assignment</td>
<td></td>
</tr>
<tr>
<td>• Timeline with due dates for reports and projects</td>
<td></td>
</tr>
<tr>
<td>• Communication system between home and school</td>
<td></td>
</tr>
<tr>
<td>• Small group instruction</td>
<td></td>
</tr>
</tbody>
</table>
## Enrichment

### Strategies Used to Accommodate Based on Students Individual Needs:

- Adaption of Material and Requirements
- Evaluate Vocabulary
- Elevated Text Complexity
- Elevated Projects Rubrics
- Independent Written and Video Online Tutorials
- Projects completed individual or with Partners
- Self-Selection of Research
- Tiered/Multilevel Activities
- Online Learning Communities
- Individual Response Board
- Independent Book Studies
- Open-ended activities
- Community/Subject expert mentorships
## Assessments

### Suggested Formative/Summative Classroom Assessments

- Storyboards
- Teacher-created Unit Assessments, Topic Assessments, Quizzes
- Teacher-created DBQs, Essays, Short Answer
- Accountable Talk, Debate, Oral Report, Role Playing, Think Pair, and Share
- Projects, Portfolio, Presentations, Prezi, Gallery Walks
- Homework
- Concept Mapping
- Primary and Secondary Source analysis
- Photo, Video, Political Cartoon, Radio, Game Analysis
- Create an Original Song, Animation, Board Game
- Writing reflective essays for current news articles based on Supply Chain Disruptions and other content related.
- Formal presentations
# Interdisciplinary Connections

## English Language Arts
- Close reading of the current news articles related to content and writing reflective essays. (NJSLSA.W.11-12.10)
- Writing and research content for presentations. (NJSLSA.WW.12.9b2)

## Social Studies
- Research the history of natural disasters for contingency planning. (6.1.12)
- Use historical references to research trends in the supply chain. (6.2.12)

## World Language
- Translate content related to supply chain (7.1.ILA)
- Create a translated index of global logistics and supply chain vocabulary (7.1.ILA)

## Math
- Apply geometric methods to solve design problems. (G-CO)
- Solve algebraic problems for layout and design of warehouse space. (G-CO)

## Fine & Performing Arts
- Create graphics using Sketch It for various projects with Global Logistics and Supply Chain Management (1.2.12)
- Use of pictures and sketches of warehouse design in projects. (1.2.12)

## Science
- Analyzing a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants. (HS-ETS1-1)
- Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering. (HS-ETS1-2)
New Jersey Student Learning Standards

8.2 Technology

TECHNOLOGY OPERATION AND CONCEPTS

- 8.1.12.A.2: Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.
- 8.1.12.A.4: Construct a spreadsheet workbook with multiple worksheets, rename tabs to reflect the data on the worksheet, and use mathematical or logical functions, charts and data from all worksheets to convey the results

9.1 Personal Financial Literacy


9.2 Career Awareness, Exploration and Preparation

- 9.2.12.C.3: Identify transferable career skills and design alternate career plans.
- 9.2.12.C.5: Research career opportunities in the United States and abroad that require knowledge of world languages and diverse cultures.
- 9.2.12.C.7: Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.

9.3 Career and Technical Education
CAREER CLUSTER: TRANSPORTATION, DISTRIBUTION AND LOGISTICS (TD)

- 9.3.12.TD.1: Describe the nature and scope of the Transportation, Distribution & Logistics Career Cluster and the role of transportation, distribution and logistics in society and the economy.
- 9.3.12.TD.2: Describe the application and use of new and emerging advanced techniques to provide solutions for transportation, distribution and logistics problems.
- 9.3.12.TD.3: Describe the key operational activities required of successful transportation, distribution and logistics facilities.
- 9.3.12.TD.4: Identify governmental policies and procedures for transportation, distribution and logistics facilities.
- 9.3.12.TD.5: Describe transportation, distribution and logistics employee rights and responsibilities and employers’ obligations concerning occupational safety and health.
- 9.3.12.TD.6: Describe career opportunities and means to achieve those opportunities in each of the Transportation, Distribution & Logistics Career Pathways.

PATHWAY: LOGISTICS, PLANNING AND MANAGEMENT SERVICES (TD-LOG)

- 9.3.12.TD- LOG.1: Develop solutions to provide and manage logistics services for the company and customers.
- 9.3.12.TD- LOG.2: Analyze and improve performance of logistics systems to provide logistics planning and management services.

PATHWAY: TRANSPORTATION OPERATIONS (TD-OPS)

- 9.3.12.TD- OPS.1: Develop and evaluate transportation plans to move people and/or goods to meet customer requirements.
- 9.3.12.TD- OPS.2: Analyze performance of transportation operations in order to improve quality and service levels and increase efficiency.
- 9.3.12.TD- OPS.3: Comply with policies, laws and regulations in order to maintain safety, security and health and mitigate the economic and environmental risk of transportation operations.

PATHWAY: WAREHOUSING & DISTRIBUTION CENTER OPERATIONS (TD-WAR)
9.3.12.TD- WAR.1: Demonstrate efficient and effective warehouse and distribution center operations.
9.3.12.TD- WAR.2: Describe ways to improve the performance of warehouse and distribution operations.
9.3.12.TD- WAR.3: Analyze compliance with company policies and government laws and regulations in warehouse and distribution operations.

NJSLS - English-Language Arts

Range of Writing:

- W.11-12.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Comprehension and Collaboration:

- SL.12.1a. Come to discussions prepared, having read material under study; explicitly draw on that preparation by referring to evidence from texts on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas

Craft and Structure:

- RI.12.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.

Research to Build and Present Knowledge:

- W.12.9b. Draw evidence from informational texts to support analysis, reflection, and research; apply grade 12 Reading standards to literary nonfiction
NJSLS - Mathematics

Extending to Three Dimensions:

- HSS.G.MG.14 Solve design problems using geometric methods.
- MP1 Make sense of problems and persevere in solving them.
- MP2 Reason abstractly and quantitatively.
- MP4 Model with mathematics.
- MP6 Attend to precision.
- MP7 Look for and make use of structure.
- MP8 Look for and express regularity in repeated reasoning.

Congruence, Proof, and Construction:

- HSS. G.CO.2, G.CO.3, G.CO.4, G.CO.5 Develop and perform rigid transformations that include reflections, rotations, translations and dilations using geometric software, graph paper, tracing paper, and geometric tools and compare them to non-rigid transformations.
### Course: Introduction to Logistics
**Unit:** 4 - Operation Logistics  
**Grade Level:** 9-12

#### Unit Overview:
Students will explore logistical problems and preparedness. Students explore potential logistical disasters, understand the importance of contingency planning and preparedness, and learn about standard operating procedures. They will analyze multiple factors associated with procuring goods and services and explore the advantages and disadvantages of insourcing and outsourcing for increasing sales volume.

#### New Jersey Student Learning Standards (NJSLS):

<table>
<thead>
<tr>
<th>Student Learning Objectives (SLOs)</th>
<th>Essential Questions</th>
<th>Skills &amp; Indicators</th>
<th>Sample Activities</th>
<th>Resources</th>
</tr>
</thead>
</table>
How can we plan for a disaster so that it impacts us less financially? | ▪ Explore financial impact due to natural disasters.  
▪ Brainstorming collaboratively for identifying impact to the supply chain.  
▪ Actively read news | Students will watch each news clips of natural disasters. There will be an open discussion in class with several questions so that student learn more about the financial cost associated with disasters. | Thailand Flooding Video – CNN  
https://www.youtube.com/watch?v=2tDVveHkFgk  

Truckloads of Water Rushed to West Virginia Disaster – CBS News  
https://www.youtube.com |
<table>
<thead>
<tr>
<th>Student Learning Objectives (SLOs)</th>
<th>Essential Questions</th>
<th>Skills &amp; Indicators</th>
<th>Sample Activities</th>
<th>Resources</th>
</tr>
</thead>
</table>
• Create an essay using software program. | Students will read and write a reflective essay from the Thai Floods Close 17 Factories article. | /watch?v=dAbsWfHxzX0 |
<table>
<thead>
<tr>
<th>Student Learning Objectives (SLOs)</th>
<th>Essential Questions</th>
<th>Skills &amp; Indicators</th>
<th>Sample Activities</th>
<th>Resources</th>
</tr>
</thead>
</table>
| G.CO.5                            | Evaluate emergency plans to prepare for seen and unforeseen circumstances. | ▪ Knowledge of paraphrase content.  
▪ Use public speaking skills.  
▪ Knowledge of the need to create a contingency plan.  
▪ Explore contingency plans familiar to students.  
▪ Analyze risk in creating a contingency plan. | Students will complete a jigsaw activity from the Importance of Emergency Contingency Plans. Teams will present information.  
Students will evaluate a contingency plan of the school (i.e. fire drills, live shooter drill, etc.) and compare its strengths and weaknesses.  
Students will identify risk to consider when creating a contingency plan. | Importance of Emergency Contingency Plans  
Creating a contingency Plan  
https://www.mindtools.com/pages/article/newLDR_51.htm |
What are the strengths and weaknesses of the various contingency plans we are analyzing?  
Which stakeholders will a contingency plan affect? | | |
<table>
<thead>
<tr>
<th>Student Learning Objectives (SLOs)</th>
<th>Essential Questions</th>
<th>Skills &amp; Indicators</th>
<th>Sample Activities</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Learning Objectives (SLOs)</td>
<td>Essential Questions</td>
<td>Skills &amp; Indicators</td>
<td>Sample Activities</td>
<td>Resources</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>-------------------</td>
<td>-----------</td>
</tr>
</tbody>
</table>
▪ Use an Optimization Decision Matrix for problem solving.  
▪ Create math equations to understand counts and needs of company.  
▪ Knowledge of the need to create a contingency plan. | Analyze 5 regions and develop an optimization matrix and narrow down your solutions.  
Students will research several contingency plans that will argue a need to address for potential disasters. | https://www.mindtools.com/pages/article/newLDR_51.htm |
### Student Learning Objectives (SLOs)
- Practice.MP8
- MATH.CONTENT.HSS. G.CO.2, G.CO.3, G.CO.4, G.CO.5

### Essential Questions
- How could a company increase its revenue by changing its sourcing?
- What qualities are important when manufacturing or procuring products?
- What factors affect sourcing decisions?

### Skills & Indicators
- Understand that sales volume will affect sourcing decisions.
- Writing response to a prompt.
- Knowledge about hamburger manufacturing.
- Understand the supply chain for hamburger manufacturing.
- Understand the term insourcing.
- Brainstorming collaboratively for identifying components to a supply chain.

### Sample Activities
- Students watch video and understand that changes in sales volume will affect sourcing decisions. Students will write a responsive paragraph from the video.
- Students will watch the video on Make It, Manufacturing and Operations and brainstorm to discuss the components/ingredients needed to "manufacture" a hamburger.
- Students will read Insourcing at GE and then complete a Know/Need to Know.

### Resources
- Supply Chain Management
  [https://www.youtube.com/watch?v=Mi1QBxVjZAw](https://www.youtube.com/watch?v=Mi1QBxVjZAw)
- Make it Manufacturing and Operations
  [https://www.youtube.com/watch?v=ncli94xdm8](https://www.youtube.com/watch?v=ncli94xdm8)
- Insourcing at GE
  [https://hbr.org/2013/07/insourcing-at-ge-the-real-stor](https://hbr.org/2013/07/insourcing-at-ge-the-real-stor)
<table>
<thead>
<tr>
<th>Student Learning Objectives (SLOs)</th>
<th>Essential Questions</th>
<th>Skills &amp; Indicators</th>
<th>Sample Activities</th>
<th>Resources</th>
</tr>
</thead>
</table>
| ELA-LITERACY.W.11-12.10, ELA-LITERACY.SL.12.1a, ELA-LITERACY.RI.12.4, ELA-LITERACY.W.12.9b, MATH.CONTENT.HSS.G.MG.14 MATH.PRACTICE.MP1, Math.Practice.MP2, Math.Practice.MP5, MATH.PRACTICE.MP6, Math.Practice.MP7, Math.Practice.MP8, MATH.CONTENT.HSS.G.CO.2, G.CO.3, G.CO.4, G.CO.5 | Explore various factors that affect sourcing decisions. | What factors outweigh higher labor costs in moving manufacturing onshore? What considerations other than price may be important to consumers? What goods or services | Brainstorming collaboratively for assigned task Understanding of quality of product impacts market and sales Understand that certain factors impact a company’s decision | Working in teams, students will brainstorm the ingredients for a gourmet hamburger. This activity will have students think about the quality of ingredients and serves as an introduction to this unit. **Product/Quality/Matters**
**A Toy Maker Comes Home**
https://www.wsj.com/articles/SB100014241278873
<table>
<thead>
<tr>
<th>Student Learning Objectives (SLOs)</th>
<th>Essential Questions</th>
<th>Skills &amp; Indicators</th>
<th>Sample Activities</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Knowledge of paraphrasing content.</td>
<td>Students will be reviewing a PowerPoint from SREB that reviews the benefits of insourcing and outsourcing for companies. But the factors are different based on the company's needs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use public speaking skills.</td>
<td>Brainstorming activity where students think about the products we use every day and where are they manufactured,</td>
<td></td>
</tr>
<tr>
<td>Student Learning Objectives (SLOs)</td>
<td>Essential Questions</td>
<td>Skills &amp; Indicators</td>
<td>Sample Activities</td>
<td>Resources</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>-------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Understand that diversifying products impacts sourcing decisions.</td>
<td>How to determine what products can you diversify? How can we determine whether to produce a product within a small business or purchase it from another source? What are the various sourcing strategies? How will those strategies impact our business?</td>
<td>• Understanding how to research content for presentations. • Knowledge about citing sources. • Compare terms with logistics using a graphic organizer. • Solve basic algebraic problems • Graph slope lines. • Creating a graph using spreadsheet software.</td>
<td>Students will be researching logistics publications to learn about more insourcing and outsourcing. Students will complete a Venn Diagram comparing their advantages and disadvantages. Students will complete a Pre-Math Assessment. Students will watch video to understand Break Even Point. Students will work in Budget Stations Activity where they must graphing lines in slope form. Complete the graphing activity based on financial data.</td>
<td>Links to Logistics Publications/Trade Magazines <a href="https://www.scmo.net/logistics-publications/">https://www.scmo.net/logistics-publications/</a> Venn Diagram <a href="https://educators.brainpop.com/printable/venn-diagram/">https://educators.brainpop.com/printable/venn-diagram/</a> Understanding Break Even Point <a href="https://www.youtube.com/watch?v=1aAxDoPNTpw">https://www.youtube.com/watch?v=1aAxDoPNTpw</a></td>
</tr>
<tr>
<td>Student Learning Objectives (SLOs)</td>
<td>Essential Questions</td>
<td>Skills &amp; Indicators</td>
<td>Sample Activities</td>
<td>Resources</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>-------------------</td>
<td>-----------</td>
</tr>
</tbody>
</table>
Students will explore logistical problems and preparedness in order to create a contingency plan in preparation for a catastrophic event. Students explore potential logistical disasters, understand the importance of contingency planning and preparedness, and learn about standard operating procedures. They will present this information in front of their peers.

Students will explore multiple factors associated with procuring goods and services. Students will analyze the advantages and disadvantages of insourcing and outsourcing, or some combination of the two, for procuring baked goods based on cost (raw materials, labor, packaging, prebaked product, partially baked product), risk, convenience, and product quality.
## Suggested Structured Learning Experiences

<table>
<thead>
<tr>
<th>UPS</th>
<th>Wards Ice Cream</th>
</tr>
</thead>
<tbody>
<tr>
<td>340 Macarthur Blvd, Mahwah, NJ 07430</td>
<td>93 Sherwood Avenue, Paterson, NJ 07502</td>
</tr>
<tr>
<td>Port of Newark Container Terminal</td>
<td>Miami Onion Roll Company</td>
</tr>
<tr>
<td>241 Calcutta Street, Newark, NJ 07114</td>
<td>111 Berkshire Avenue, Paterson, NJ 07502</td>
</tr>
</tbody>
</table>