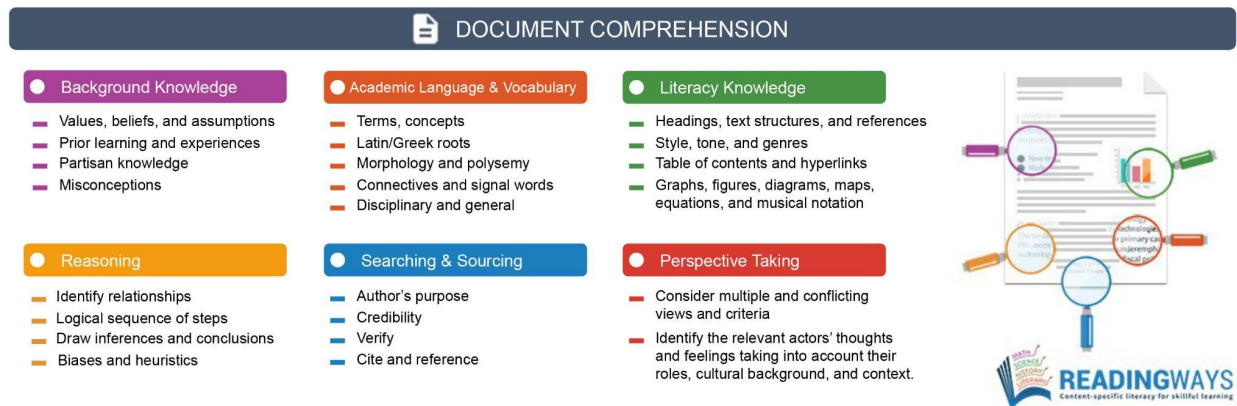# Disciplinary Literacy in Career Tech Education

Joshua Lawrence's Presentation Handout

The Many Facets of Critical Disciplinary Literacy

Agriculture and environmental systems pathway

- **Technical reports**: research reports, environmental impact assessments, and progress reports on agricultural projects.

- **Regulations and policies**: laws and regulations that govern their work

- **Instructions and manuals**: instructions and manuals for equipment, pesticides, and other products used in their work.

- **Scientific articles**: scientific articles related to their field in order to stay up-to-date on the latest research and developments.

- **Educational materials**: creating or distributing materials that educate the public about agriculture and the environment.

- **Correspondence with colleagues and stakeholders**: write letters, emails, and other forms of communication to coordinate with colleagues and engage with stakeholders.

- **Forms and documents related to grant applications, funding, and reporting**: forms and documents related to grant applications, funding, and reporting.

Construction technologies pathway

- **Technical specifications and blueprints**: technical specifications and blueprints in order to accurately plan and execute construction projects.

- **Building codes and regulations**: building codes and regulations that apply to their projects, and may need to be able to read and understand these documents.

- **Safety guidelines**: safety guidelines and instructions for safely using equipment and materials.

- **Estimates and bids**: estimates and bids from subcontractors and suppliers in order to plan and budget for a project.

- **Correspondence with clients and colleagues**: write letters, emails, and other forms of communication to coordinate with clients and colleagues.

- **Forms and documents related to project planning, scheduling, and reporting**: read and complete forms and documents related to project planning, scheduling, and reporting.

- **Educational materials**: educate the public about construction technologies and processes.

CTE Job Search

- **Resume**: a document that summarizes an individual's work experience, education, and skills, often used in job applications

- **Cover letter**: a letter or email that accompanies a job application, typically highlighting the qualifications and skills that make the candidate a good fit for the position

- **Portfolio**: a collection of documents, images, or other materials that demonstrate an individual's work, skills, or achievements

- **Reference letter**: a letter written by a previous employer, teacher, or other professional acquaintance that attests to an individual's qualifications and character

- **Certifications and licenses**: official documents that attest to an individual's qualifications or certifications in a particular field or profession.

Example using inquiry chart

Objective: Students will use inquiry charts to analyze an environmental impact assessment, a cost analysis, and data from an experiment using alternative pest management approaches in a neighboring town in the context of a CTE agriculture pathways class.

Texts: Copies of the environmental impact assessment, cost analysis, and data from an experiment using alternative pest management approaches in a neighboring town.

	Long term financial impact	Short term financial impact	Possible bias or errors	Suggested decision
Environmental Impact				
Cost Analysis				
Data from Experiment				

INQUIRY CHART

NAME:

TOPIC:

Write the questions that you want to understand about your topic at the top of each column. The rows are for recording any information you already know, and the key ideas pulled from relevant sources.

	Question 1	Question 2	Question 3	Question 4	Other Interesting Facts	New Questions

READINGWAYS
www.readingways.org

Hoffman, J. (1992). *Critical reading/thinking across the curriculum: Using I-charts to support learning.* Language Arts, 69(2), pp. 121-27.

HEALTH AND HOME ECONOMICS SENTENCE FRAMES

NAME:

TOPIC:

Taste and flavor

I really enjoy the _____ flavor in this dish. (e.g. spicy, tangy)

The _____ taste is a little too strong for my liking. (e.g. sour, bitter)

I love the balance of _____ and _____ flavors in this meal. (e.g. sweet and savory)

Nutrition

This food is high in _____, which is important for _____
(e.g. protein, muscle building; fiber, digestion)

I try to choose foods that are rich in _____ because they help with _____
(e.g. antioxidants, immune function; omega-3s, brain health)

I'm trying to increase my intake of _____ because it's good for _____
(e.g. vegetables, overall health; iron, energy levels)

Cost and value

I think this food is a good value because it's _____ in nutrients and _____ in cost. (e.g. high, low)

This dish may be _____, but it's worth it for the high-quality ingredients. (e.g. expensive)

I'm trying to save money, so I look for discounts on _____ foods. (e.g. nutrient-dense, healthy)

Career Field

Organizing curricular tool. Each career field includes multiple occupations and broad industries that share a fundamental base of knowledge and skills that are required for success in pursuing employment and further study. The Office of Career-Technical Education organizes curriculum into 16 career fields that are based on the States' National Cluster initiative. The Ohio career fields, adopted as part of Administrative Rule 3301-61-03 in May 2004, include:

- **Agricultural and Environmental Systems** – Knowledge and skill related to careers in animal and crop production; agricultural services and engineering; food processing; horticulture; natural resource management; environmental services; and agricultural and environmental education, communications and research.

- **Arts and Communication** – Knowledge and skill related to careers in media (audio, video, etc.), performing (dance, music, theatre) and visual/imaging arts.

- **Business and Administrative Services** – Knowledge and careers related to business management, administrative support, human resources and business administration.

- **Construction Technologies** – Knowledge and skill related to careers in designing, planning, managing, and building and maintaining the built environment, including roadways and bridges and industrial, commercial and residential facilities and buildings.

- **Education and Training** – Knowledge and skill related to careers in planning, managing and providing education and training services and related learning support services.

- **Engineering and Science Technologies** – Knowledge and skill related to careers in: (a) planning, managing, and providing scientific research and services such as laboratory and testing and research and development; and (b) design, process and development services such as electrical engineering, industrial engineering, materials science, nanofabrication, fuel cell technology and robotics.

- **Finance** – Knowledge and skill related to careers in financial and investment planning, accounting, banking, insurance, real estate and business financial management.

- **Government and Public Administration** – Knowledge and skill related to careers in national defense, Foreign Service, governance, revenue and taxation, regulation and public administration at local, state and federal levels. In 2014, Ohio had no secondary career tech programs in this career field.

- **Health Science** – Knowledge and skill related to careers in planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services and biotechnology research and development.

- **Hospitality and Tourism** – Knowledge and skill related to careers in the management, marketing, and operations of restaurants and other food services, lodging, attractions, recreation events and travel related services.

- **Human Services** – Knowledge and skill related to careers related to social services,

counseling and mental health services, consumer services and personal care services. In 2014, the only program in this career field was in cosmetology.

- **Information Technology** – Knowledge and skill related to careers in the design, development, support and management of hardware, software, multimedia and systems integration services.

- **Law and Public Safety** – Knowledge and skill related to careers in planning, managing, and providing judicial, legal, public administration, public safety and protective services and homeland security.

- **Manufacturing Technologies** – Knowledge and skill related to careers in planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.

- **Marketing** – Knowledge and skill related to careers in planning, managing and performing marketing activities such as distribution, promotion, pricing, selling, financing, information management, and product/service management to reach organizational objectives.

- **Transportation Systems** – Knowledge and skill related to careers in planning, management, and movement of people, materials and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services and mobile equipment and facility maintenance services