

"Quantum Career Compass: Navigating the Future Paths of Middle Schoolers"

Making Quantum Technologies Accessible: providing age appropriate, early exposure to prepare students for the next technological revolution

Elaine T. Amparo

Teacher Leadership Shilgozhóo Institute (TLSI)

2024

Author Note:

Elaine T. Amparo, a 8th Grade Career Exploration teacher in San Carlos Middle School in San Carlos, Arizona, United States of America. Correspondence to this curriculum unit can be addressed to Elaine T. Amparo, 1077 E Bailey Street, Globe, AZ, 85501. Email contact: e.amparo@sancarlos.k12.az.us

Introduction

The "Quantum Career Compass: Navigating the Future Paths of Middle Schoolers" curriculum unit has been meticulously crafted for 8th grade students at San Carlos Middle School, a school where nearly 99% of the student body is Apache. This curriculum unit is designed to address the specific needs and strengths of these students, recognizing the unique cultural and community context in which they are growing and learning. At this pivotal stage in their academic journey, students are on the brink of a significant transition—from middle school to high school—a period that often prompts a greater focus on their future aspirations and career possibilities. The "Quantum Career Compass" unit seeks to guide students through this transitional phase with a comprehensive, culturally relevant approach to career exploration, helping them connect their academic experiences with their personal and cultural identities.

As 8th graders, students are beginning to grapple with more complex concepts related to their future, including the potential career paths they might pursue and the academic choices they need to make to support those paths. This age is characterized by a growing awareness of personal strengths and interests, alongside an increasing ability to think abstractly about their future roles in the world. The curriculum unit is designed to harness this developmental stage by providing structured opportunities for self-assessment, career exploration, and goal setting. By engaging in activities that encourage them to reflect on their interests, values, and aspirations, students gain a clearer understanding of how their individual traits align with potential career options.

A key component of the "Quantum Career Compass" unit is its integration of Apache cultural values and perspectives into the career exploration process. San Carlos Middle School serves a predominantly Apache student population, and it is crucial that the curriculum not only acknowledges but also celebrates and incorporates Apache cultural heritage. The unit is designed to connect students' career exploration with their cultural identity, reinforcing the relevance of their heritage in shaping their future career paths. Apache traditions such as community service, environmental stewardship, and leadership are woven into the curriculum, helping students see how these values can inform and enrich their career choices.

In practical terms, the unit includes a range of activities aimed at fostering self-awareness and career exploration. Students begin by engaging in self-assessment exercises that help them identify their strengths, interests, and values. This foundational step is crucial for understanding how their personal attributes align with various career options. Tools such as interest inventories and personality assessments are utilized to guide students through this reflective process, providing them with insights that will inform their career exploration.

Following self-assessment, students participate in research activities to explore a variety of career paths. This includes investigating traditional careers as well as emerging fields that are likely to influence the future job market. The curriculum emphasizes the importance of understanding how technological advancements and global trends might impact career opportunities. By examining real-world case studies and hearing from guest speakers who are professionals in various fields, students gain a broader perspective on the possibilities available to them.

A significant aspect of the "Quantum Career Compass" unit is its focus on cultural relevance. The curriculum integrates Apache cultural perspectives by linking traditional values and practices to contemporary career opportunities. For instance, Apache traditions of environmental stewardship are connected to careers in environmental science, while values of community service are related to roles in social work and community development. By making these connections, the unit helps students understand how their cultural heritage can shape and enhance their career aspirations.

The curriculum also includes opportunities for students to engage with Apache professionals and community leaders. These interactions provide students with role models who reflect their cultural background and offer practical insights into how cultural values can influence career choices. Hearing from individuals who have successfully navigated their own career paths can inspire students and provide them with tangible examples of how to integrate their cultural identity into their professional lives.

Family involvement is another key element of the "Quantum Career Compass" unit. The curriculum encourages family participation through workshops and discussions, fostering a collaborative learning environment that extends beyond the classroom. Involving Apache families in the career exploration process helps bridge the gap between students' academic experiences and their cultural backgrounds, creating a more holistic and supportive approach to career planning. Family engagement also reinforces the importance of cultural heritage in shaping students' future paths, further integrating their cultural identity into the career exploration process.

The timing of the "Quantum Career Compass" unit is strategically chosen for the spring semester, a period when students are beginning to focus on their high school choices and future plans. Implementing the unit during this time allows students to apply the insights gained from the curriculum as they make decisions about their high school courses and extracurricular activities. This timing ensures that the career exploration process is relevant and timely, aligning with the students' immediate academic and personal decisions.

In summary, the "Quantum Career Compass: Navigating the Future Paths of Middle Schoolers" curriculum unit is designed to provide 8th grade students at San Carlos Middle School with a comprehensive and culturally responsive approach to career exploration. By integrating Apache cultural values, community connections, and practical career exploration activities, the unit empowers students to make informed decisions about their future paths. Through self-assessment, research, and engagement with cultural role models, students gain the knowledge and confidence needed to navigate their career aspirations with a deep sense of personal and cultural relevance. This curriculum unit not only supports students in their academic and career planning but also honors and enriches their cultural heritage, providing a meaningful and supportive framework for their future success.

Context

The "Quantum Career Compass: Navigating the Future Paths of Middle Schoolers" curriculum unit is meticulously designed for 8th grade students, a pivotal age when young adolescents are

beginning to contemplate their futures with increasing seriousness. At this developmental stage, typically ranging from 13 to 14 years old, students are transitioning from the exploratory phase of early adolescence into a more reflective and self-aware phase. This period is marked by significant cognitive and emotional growth, where students start to form a clearer sense of their identities, values, and long-term goals. The curriculum unit aims to harness this developmental momentum to guide students through the complexities of career exploration, providing them with the tools and insights needed to make informed decisions about their future paths.

Grade Level and Content Area:

Eighth grade is a crucial time for students as they prepare to transition from middle school to high school, and potentially, from a more general educational focus to a more specialized one. At this juncture, students are often beginning to think about their high school course selections and extracurricular activities in relation to their future career aspirations. This makes it an ideal time to introduce a structured approach to career exploration. The "Quantum Career Compass" unit falls within the broader content area of Career Exploration and Development, which integrates elements of social studies, personal development, and practical life skills. The unit is designed to bridge the gap between students' current academic experiences and their future career possibilities, thereby making learning more relevant and purposeful.

Characteristics of the Class:

Eighth grade students are characterized by their growing capacity for abstract thinking and their burgeoning interest in understanding how their choices will impact their futures. They are at a stage where they can engage in more sophisticated discussions about career possibilities, the nature of work, and the skills required for different professions. Additionally, this age group is highly influenced by social and technological trends, making it essential to provide career exploration opportunities that reflect contemporary job markets and emerging fields. Students at this level are also navigating complex social dynamics and forming their own identities, which can be both a challenge and an opportunity in career exploration. The "Quantum Career Compass" unit is designed to address these characteristics by incorporating interactive and engaging activities that resonate with students' experiences and interests.

Curriculum Unit Overview:

The "Quantum Career Compass" unit is structured to provide a comprehensive exploration of career paths through a variety of engaging activities. It includes self-assessment exercises to help students identify their strengths and interests, research projects on different careers, and interactive workshops with professionals. The unit also covers future trends in the job market, including the impact of technological advancements and globalization. By exploring these elements, students gain a deeper understanding of how their current interests and skills can translate into future career opportunities.

One of the key features of the unit is its emphasis on personal reflection and self-assessment. Students will engage in activities that help them identify their personal interests, values, and strengths. This self-knowledge is crucial as it forms the basis for exploring and understanding various career options. The unit incorporates tools such as interest inventories and personality assessments, which are grounded in established career development theories, to guide students in their self-discovery process.

The curriculum also includes research and exploration components, where students investigate different career fields, including emerging professions that are likely to shape the future job market. This aspect of the unit encourages students to think broadly about their future possibilities and consider how various factors, such as technological advancements and global trends, might influence their career choices. The inclusion of guest speakers and industry professionals further enriches this exploration, providing students with real-world insights and role models.

Integration with Teaching Schedule:

The "Quantum Career Compass" unit is best implemented during the spring semester, typically from February to March. This timing is strategically chosen to align with the period when students are beginning to make critical decisions about their high school courses and extracurricular activities. By introducing career exploration at this time, students can use the insights gained from the unit to inform their choices for high school, such as selecting courses that align with their career interests and participating in relevant extracurricular activities.

Additionally, the spring semester is a time when students are more settled into their academic routines and can dedicate focused time to career exploration activities. The unit's engaging and interactive approach is well-suited to this period, as students are often more receptive to exploring new ideas and planning for the future as they approach the end of the school year. The timing also allows for integration with other end-of-year activities and reflections, providing a holistic approach to students' personal and academic development.

Cultural Relevance and Community Connections:

A significant aspect of the "Quantum Career Compass" unit is its focus on cultural relevance, particularly in the context of Apache students and communities. The curriculum is designed to honor and integrate Apache cultural values, histories, and community needs into the career exploration process. This cultural integration ensures that career exploration is not only academically relevant but also personally meaningful for students.

Incorporating Apache cultural perspectives helps students see how their cultural heritage can inform and enrich their career aspirations. For example, Apache traditions of community service, leadership, and environmental stewardship are connected to career paths in fields such as community development, environmental science, and leadership roles. By highlighting these connections, the unit reinforces the value of students' cultural backgrounds in shaping their future career choices.

The curriculum also includes opportunities for students to engage with Apache professionals and community leaders, providing them with role models who reflect their cultural heritage. These interactions offer students a tangible connection between their career aspirations and their cultural identity, fostering a sense of pride and relevance in their career exploration journey.

Involving Apache families in the curriculum through workshops and discussions further strengthens the connection between home and school. Family participation helps bridge the gap between students' academic experiences and their cultural backgrounds, creating a supportive environment for career exploration that extends beyond the classroom.

The "Quantum Career Compass: Navigating the Future Paths of Middle Schoolers" curriculum unit is crafted to meet the developmental needs of 8th grade students while integrating cultural relevance and community connections. By providing a structured approach to career exploration that aligns with students' interests, skills, and cultural backgrounds, the unit equips students with the knowledge and tools needed to make informed decisions about their future paths. The curriculum's integration of personal reflection, career research, and cultural perspectives ensures that students are not only prepared for their academic futures but also empowered to pursue careers that resonate with their identities and values.

Rationale

The "Quantum Career Compass: Navigating the Future Paths of Middle Schoolers" curriculum unit has been developed with a deep understanding of the unique developmental stage of 8th grade students and the need for meaningful career exploration that resonates with their personal and cultural contexts.

As 8th graders are on the cusp of transitioning from middle school to high school, they face critical decisions about their future academic and career paths. At this stage, students are developing a clearer sense of their own identities, strengths, and interests. Introducing career exploration at this pivotal moment helps them connect their personal aspirations with practical career options, laying a foundation for informed decision-making as they advance in their educational journey.

The curriculum unit is designed to address several key needs at this grade level:

1. **Early Career Awareness:** By exploring various careers early, students can begin to align their academic choices and extracurricular activities with their future goals, which can significantly impact their high school experience and beyond.
2. **Skill Identification:** The unit helps students identify and understand their strengths and interests, allowing them to envision how these personal attributes can translate into potential career paths.
3. **Future Preparation:** Exposure to emerging trends and future job markets prepares students for a rapidly changing world, encouraging adaptability and forward-thinking.

Incorporating the Apache cultures, histories, and community values into the curriculum unit adds a vital layer of relevance and connection for students. The Apache peoples have rich traditions, histories, and contemporary practices that can deeply inform and enrich the career exploration process. Here's how the curriculum unit aligns with and honors Apache cultures and communities:

4. **Cultural Connection:** The unit integrates aspects of Apache culture and history by including examples of how traditional skills and values, such as community service, leadership, and sustainability, relate to various career paths. For instance, careers in environmental science or cultural preservation can be linked to Apache traditions of stewardship and respect for nature.
5. **Community Engagement:** The curriculum includes opportunities for students to connect with Apache professionals and community leaders who can share their career journeys and insights. This not only provides students with role models but also strengthens their sense of belonging and pride in their cultural heritage.
6. **Family Involvement:** By inviting Apache families to participate in workshops or discussions, the unit fosters a collaborative learning environment where students can engage with their families in exploring career options. This also helps bridge school and home experiences, making the learning process more holistic and culturally affirming.
7. **Historical Context:** Students will explore how historical Apache figures and leaders have made significant contributions to various fields, highlighting the value of integrating cultural heritage into career development. Understanding these connections helps students appreciate the relevance of their own culture in shaping their future paths.

The "Quantum Career Compass" unit is crafted to provide 8th grade students with a comprehensive, culturally responsive approach to career exploration. It addresses the immediate developmental needs of students while also integrating their cultural heritage, ensuring that career exploration is not only practical but also meaningful and connected to their identities. By bridging academic content with cultural relevance, the unit aims to empower students to navigate their future paths with confidence, pride, and a deeper understanding of their own potential.

Content Objectives

The "Quantum Career Compass: Navigating the Future Paths of Middle Schoolers" curriculum unit aims to equip 8th grade students with foundational knowledge and skills for exploring and planning their future careers. The content objectives outline the core subject matter of the unit and provide a framework for students to understand and engage with career exploration concepts effectively.

Content Objectives:

Self-Assessment and Personal Reflection:

- Objective: Students will identify their personal strengths, interests, and values through self-assessment activities and reflective exercises.
- Concepts: Self-awareness, personal interests, and skill identification.

- Materials: Myers-Briggs Type Indicator (MBTI) basics, Holland’s RIASEC model, and self-assessment tools from career exploration resources.

Career Exploration and Research:

- Objective: Students will research and analyze various career paths, including those in emerging fields, to understand the skills and education required for different professions.
- Concepts: Career options, educational requirements, and job market trends.
- Materials: U.S. Bureau of Labor Statistics (BLS) career resources, O*NET Online, and articles on emerging career fields.

Future Trends and Technology Impact:

- Objective: Students will explore how technological advancements and global trends affect future job markets and career opportunities.
- Concepts: Technological impact, globalization, and future job market trends.
- Materials: Reports from the World Economic Forum, articles on the future of work, and research on technological innovations.

Cultural and Community Connections:

- Objective: Students will understand how Apache cultural values, traditions, and community needs can influence career choices and professional paths.
- Concepts: Cultural heritage, community service, and traditional skills in modern careers.
- Materials: Apache cultural studies resources, community leader interviews, and historical accounts of Apache contributions.

Career Planning and Goal Setting:

- Objective: Students will develop actionable career plans and set realistic goals based on their career interests and self-assessment results.
- Concepts: Goal setting, career planning, and actionable steps.
- Materials: Career planning guides, goal-setting worksheets, and planning tools from career development literature.

Background Ideas and Concepts:

The curriculum draws from a variety of sources to provide a comprehensive understanding of career exploration:

- Self-Assessment Tools: Foundations of self-assessment and interest inventories, including concepts from John Holland’s RIASEC model and the MBTI, help students align their personal traits with potential career paths.
- Career Exploration Resources: Resources such as the U.S. Bureau of Labor Statistics and O*NET Online provide up-to-date information on job roles, required skills, and educational pathways, helping students make informed decisions.
- Future Job Market Trends: Insights from the World Economic Forum and other research on future trends prepare students to anticipate and adapt to changes in the job market driven by technological advancements and globalization.
- Cultural Integration: Understanding Apache cultural values and contributions adds a meaningful layer to career exploration, emphasizing how cultural heritage can shape career aspirations and community impact.

By integrating these objectives, the "Quantum Career Compass" unit ensures that students gain a holistic and culturally relevant perspective on their future career paths, preparing them to make informed and purposeful decisions about their educational and professional futures.

Teaching Strategies

The "Quantum Career Compass" unit aims to guide 8th grade students in exploring career paths and understanding the future workforce landscape. This unit will help students identify their interests and strengths, learn about various career opportunities, and begin to envision their future careers. The content will be presented in a way that is engaging and relevant to the students' lives, making use of culturally responsive materials and strategies.

Unit Objectives

1. Self-Assessment and Interest Exploration:

- Students will identify their personal interests, strengths, and values.
- Students will understand how their interests align with various career paths.

2. Career Exploration:

- Students will explore a variety of career options and understand the required skills and education for each.
- Students will learn about the evolving job market and emerging career fields.

3. Goal Setting and Planning:

- Students will set short-term and long-term career goals.
- Students will develop a preliminary plan to achieve these goals, including educational and extracurricular steps.

4. Cultural Relevance and Personal Connection:

- Students will explore career paths that reflect their cultural heritage and community needs.
- Students will connect their learning to real-world examples and role models from their community.

Core Subject Matter

1. Introduction to Career Exploration:

- Concepts: Overview of career exploration, importance of self-awareness, and connection between interests and careers.

- Activities: Icebreaker activities to assess interests (e.g., interest inventories, personality quizzes).
2. Career Options and Market Trends:
 - Concepts: Overview of various career fields, skills and education required, and emerging careers.
 - Activities: Career research projects, guest speaker sessions from local professionals, virtual field trips to various industries.
 3. Goal Setting and Pathways:
 - Concepts: Importance of setting goals, creating a career pathway, and steps to achieve career goals.
 - Activities: Goal-setting workshops, development of a personal career plan, and creation of a vision board.
 4. Cultural Relevance and Community Connection:
 - Concepts: Connection between cultural heritage and career opportunities, community needs, and local role models.
 - Activities: Research and presentation on local community leaders and career paths, projects connecting career exploration to cultural values.

Teaching Strategies

1. Culturally Responsive Teaching:
 - Materials: Use resources that reflect Apache culture and the local community. Incorporate stories, role models, and career paths relevant to the students' cultural background.
 - Approach: Build on students' cultural knowledge and experiences to make career exploration relevant and meaningful.
2. Interactive Learning:
 - Activities: Utilize hands-on activities, such as career exploration games, simulations, and role-playing exercises to engage students actively.
 - Technology: Incorporate digital tools and resources like career exploration websites, virtual career fairs, and online assessments.
3. Collaborative Learning:
 - Group Work: Encourage students to work in groups for projects, discussions, and presentations. This fosters peer learning and teamwork skills.

- Peer Mentoring: Facilitate opportunities for students to interview and learn from peers who have expressed interest in various career paths.
4. Real-World Connections:
- Guest Speakers: Invite local professionals, especially from the Apache community or fields relevant to the students, to share their career experiences.
 - Field Trips: Arrange virtual or in-person visits to local businesses, colleges, and career centers to provide practical insights into different professions.
5. Reflection and Goal Setting:
- Journals: Have students keep a career exploration journal to reflect on their interests, discoveries, and goals throughout the unit.
 - Workshops: Conduct workshops on goal setting and career planning, providing students with tools and strategies to outline their personal career paths.
6. Assessment and Feedback:
- Formative Assessment: Use quizzes, group discussions, and project presentations to gauge students' understanding and provide ongoing feedback.
 - Summative Assessment: Evaluate students based on their final career exploration project, personal career plan, and participation in unit activities.

Assessment Plan

- Formative Assessments: Interest inventories, quizzes on career facts, group discussions, and reflections in journals.
- Summative Assessments: Final career exploration project, personal career plan presentation, and vision board.

Resources

- Career Exploration Websites: O*NET, CareerOneStop, and local career center resources.
- Guest Speakers: Professionals from various fields, including those within the Apache community.
- Technology: Computers/tablets for research, virtual tour platforms, and digital career exploration tools.

By implementing these strategies, students will gain valuable insights into their potential career paths and how to navigate their future aspirations with clarity and confidence.

Classroom Activities

Here are three detailed classroom activities designed for the "Quantum Career Compass: Navigating the Future Paths of Middle Schoolers" unit. These activities are tailored for 8th grade students at San Carlos Middle School and focus on career exploration.

Activity 1: Career Exploration Fair

Objective: Students will research and present on various careers, gaining an understanding of different professions, required skills, and educational paths.

Materials Needed:

- Computers or tablets for research
- Poster boards or digital presentation tools (e.g., Google Slides)
- Markers, paper, and other art supplies
- Career research guides and templates

Steps:

1. **Introduction (15 minutes):** Begin with a class discussion on the importance of career exploration and what students would like to learn about different professions. Explain the format of the Career Exploration Fair.
2. **Group Formation (10 minutes):** Divide students into small groups (3-4 students per group). Each group selects or is assigned a different career field to research. Ensure a diverse range of careers is covered, including those relevant to the Apache community and emerging fields.
3. **Research Phase (45 minutes):** Students use computers or tablets to research their assigned careers. They should gather information on job responsibilities, required skills and education, salary expectations, and career outlook. Provide research guides to help structure their findings.
4. **Preparation Phase (30 minutes):** Groups create a presentation using poster boards or digital tools. They should include key information, visuals, and interesting facts about the career. Encourage creativity, such as role-play or skits if time allows.
5. **Career Exploration Fair (60 minutes):** Host the fair where each group presents their findings to the class. Allow time for Q&A after each presentation. Consider inviting other classes or community members to attend.
6. **Reflection (15 minutes):** After the fair, hold a class discussion on what was learned and which careers were most interesting. Have students complete a reflection worksheet about their favorite presentations and any new career ideas they have.

Activity 2: Personal Career Vision Boards

Objective: Students will create a vision board that visualizes their career aspirations and goals.

Materials Needed:

- Magazines, newspapers, and printed images related to various careers
- Poster boards or large paper
- Glue, scissors, markers, and other decorative materials
- Career goal worksheets

Steps:

1. Introduction (15 minutes): Discuss the concept of a vision board and its purpose in visualizing career goals. Show examples of vision boards to inspire students.
2. Career Goals Discussion (15 minutes): Have students reflect on their career interests and goals. Provide a worksheet with prompts to help them think about their dream job, necessary skills, and steps to achieve their goals.
3. Vision Board Creation (60 minutes): Students use magazines, newspapers, and printed images to create their vision boards. They should include images and words that represent their career goals, skills they want to develop, and steps they plan to take. Encourage students to be creative and thoughtful.
4. Gallery Walk (30 minutes): Display the vision boards around the classroom. Students participate in a gallery walk, where they view each other's boards and leave positive comments or questions.
5. Share and Reflect (30 minutes): Have a few students share their vision boards with the class. Discuss the variety of careers and aspirations represented. Encourage students to set short-term goals related to their vision boards and write a brief plan outlining how they will work towards these goals.

Activity 3: Career Path Interviews

Objective: Students will conduct interviews with professionals to gain insights into different career paths and the realities of various jobs.

Materials Needed:

- Interview preparation worksheets
- Recording devices or notebooks for taking notes
- Contact information for local professionals or guest speakers
- Interview reflection sheets

Steps:

1. Introduction (15 minutes): Explain the importance of interviewing professionals and how it provides real-world insights into different careers. Discuss how to prepare for an interview and what questions to ask.
2. Preparation (30 minutes): Students complete an interview preparation worksheet where they outline their chosen career field, formulate questions to ask the professional, and prepare a brief introduction about themselves.
3. Interview Phase (90 minutes): Arrange for professionals to visit the classroom or conduct virtual interviews. Each student or pair of students interviews a professional, asking

questions about their career journey, daily tasks, required skills, and advice for future professionals. If in-person interviews are not feasible, use video interviews or virtual guest speakers.

4. Debrief and Reflection (30 minutes): After the interviews, students share their key takeaways with the class. They complete a reflection sheet on what they learned and how the interview influenced their career aspirations.
5. Follow-Up (15 minutes): Discuss how students can apply the information they learned from the interviews to their career planning. Encourage students to set actionable steps based on the advice they received.

These activities are designed to engage students actively in their career exploration process and help them connect their interests and aspirations with real-world opportunities. They also incorporate interactive and reflective elements to deepen students' understanding and personal connection to their future careers.

Student Assessment Plan

The "Quantum Career Compass" unit is designed for 8th grade students to explore various career paths, understand personal interests and strengths, and develop basic career planning skills. The unit will cover different career clusters, essential skills for various professions, and the relationship between academic subjects and career success.

Learning Objectives

By the end of the unit, students should be able to:

1. Identify and describe at least three different career clusters.
2. Assess their personal interests and strengths using a career assessment tool.
3. Explain how different academic subjects relate to specific careers.
4. Create a simple career action plan based on their interests and strengths.

Assessment Methods

To evaluate student learning, we will use a combination of formative and summative assessments.

1. Formative Assessments

A. Career Cluster Presentation

- Description: Students will work in groups to research and present one career cluster. Each group will create a visual presentation (poster or digital slide) detailing the careers within the cluster, required skills, and educational pathways.
- Evaluation Criteria:
 - Accuracy and depth of information (30%)
 - Clarity and creativity of presentation (20%)

- Teamwork and collaboration (20%)
- Ability to answer peer questions (30%)
- Documents: Rubric for Career Cluster Presentation, Group Work Checklist.

B. Interest Inventory Activity

- Description: Students will complete a career interest inventory and reflect on their results. They will then write a short reflection on how their interests align with different careers.
- Evaluation Criteria:
 - Completion of the inventory (20%)
 - Depth of reflection and connection to career options (30%)
 - Understanding of personal strengths and interests (30%)
 - Clarity and organization of written reflection (20%)
- Documents: Career Interest Inventory Worksheet, Reflection Prompt Sheet.

2. Summative Assessments

A. Career Exploration Essay

- Description: Each student will write a 500-word essay on a career of interest, including required skills, educational requirements, and personal relevance.
- Evaluation Criteria:
 - Accuracy and detail of career information (30%)
 - Connection between personal interests and the chosen career (30%)
 - Organization and clarity of writing (20%)
 - Use of sources and examples (20%)
- Documents: Career Exploration Essay Rubric, Essay Guidelines.

B. Career Action Plan Project

- Description: Students will develop a career action plan that outlines steps they need to take to pursue a career of interest. This will include educational goals, extracurricular activities, and potential career experiences.
- Evaluation Criteria:
 - Realism and feasibility of the action plan (30%)
 - Alignment with personal interests and strengths (30%)
 - Completeness of the plan (20%)
 - Presentation and organization of the plan (20%)
- Documents: Career Action Plan Template, Rubric for Career Action Plan.

C. Unit Test

- Description: A multiple-choice and short-answer test covering key concepts from the unit, including career clusters, skills needed for different careers, and how academic subjects relate to careers.
- Evaluation Criteria:
 - Accuracy of answers (60%)
 - Understanding of key concepts (30%)
 - Neatness and adherence to instructions (10%)
- Documents: Test Questions, Answer Key, Test Rubric.

This assessment plan is designed to provide a comprehensive evaluation of students' understanding of career exploration. It includes a variety of assessment methods to cater to different learning styles and provide opportunities for both individual and collaborative work. The combination of formative and summative assessments ensures that students receive ongoing feedback and have a clear understanding of their progress throughout the unit.

Alignment with Standards

State Curriculum Standards

STANDARD 1.0 Career Research

1.5 Evaluate personal abilities, interests, and motivations and discuss how they might influence job and career selection.

The "Quantum Career Compass" unit aligns with this state standard by incorporating activities and assessments designed to help students evaluate their personal abilities, interests, and motivations. The unit includes a Career Interest Inventory and a Career Action Plan Project, which directly address the standard by guiding students to reflect on their personal attributes and how these relate to potential career paths. Students are encouraged to explore various career clusters, assess their own strengths and interests, and develop a realistic career plan based on their findings.

Diné Standards

Diné Standard: Self-Knowledge and Identity

1. Demonstrate understanding of personal strengths, interests, and values in relation to academic and career goals.

The "Quantum Career Compass" unit aligns with this Diné standard through its focus on personal self-assessment and career exploration. The unit emphasizes understanding individual strengths, interests, and values and how these factors influence career choices. By integrating activities such as the Career Interest Inventory and the Career Exploration Essay, students are encouraged to

reflect on their own identities and how these relate to their academic and career aspirations. The unit supports the Diné principle of self-knowledge by providing students with tools to analyze their personal attributes and connect them to real-world career opportunities.

CRAIS Tool Principles

Principle 1: Self-Awareness

1.1 Develop an understanding of personal skills, interests, and values.

Principle 3: Career Exploration

3.1 Explore career options based on personal interests and skills.

The unit aligns with CRAIS Tool principles by focusing on self-awareness and career exploration. The Career Interest Inventory activity helps students develop an understanding of their skills, interests, and values. The Career Exploration Essay and the Career Action Plan Project further support students in exploring various career options based on their personal attributes. By engaging in these activities, students gain insights into how their self-awareness can influence their career choices and educational paths.

The "Quantum Career Compass" unit is designed to meet state curriculum standards, Diné standards, and CRAIS Tool principles by integrating activities that promote self-assessment, career exploration, and the alignment of personal interests with career opportunities. By focusing on these elements, the unit ensures that students not only understand their own strengths and interests but also how these factors can guide their future career decisions.

Resources

U.S. Bureau of Labor Statistics (BLS) career resources

<https://www.bls.gov/k12/students/careers/how-can-bls-help-me-explore-careers.htm>

Arizona Career Literacy

[K-8 Career Literacy | Arizona Department of Education \(azed.gov\)](https://www.azed.gov/education/k-8-career-literacy)

themyersbriggs.com

<https://www.themyersbriggs.com/mbti-training>

Open Source Psychometrics Project

<https://openpsychometrics.org/tests/RIASEC>

Exploring: Discover Your Future

[Exploring - Discover Your Future](https://www.exploring.com/discover-your-future)

O*NET online

[O*NET OnLine \(onetonline.org\)](https://www.onetonline.org/)

Tiller, Veronica E. (2010), Culture and Customs of the Apache Indians

노영윤. (2016). The effects of self-discovery career programs utilizing photo diaries and picture books on career exploration of college students. *The Classical Literature and Education*, 33, 83–119. <https://doi.org/10.17319/cle.2016..33.83>

Dufek, D. (2017). FYE 103: Career exploration (*Second edition.*). Bay College.

San Carlos Apache Reservation. (1960). Arizona Commission of Indian Affairs.

Burns, K., Ermitage, K., & McCarthy, K. D. (2010). Child development: jobs in child development : career compass. Learning Seed.

Lowman, R. L. (1991). The clinical practice of career assessment: Interests, abilities, and personality (*1st ed.*). American Psychological Association.

Dai, D. Y., & Sternberg, R. J. (2004). Motivation, emotion, and cognition: Integrative perspectives on intellectual functioning and development. Lawrence Erlbaum Associates.

Fein, L. G. (1961). The three-dimensional personality test: Reliability, validity, and clinical implications. International Universities Press.