29. Government & Public Administration Cluster - National Security and Armed Forces Careers (4 hours)

Purpose/Abstract: To introduce students to careers in national security and the armed forces.			
NCCCS Adult Education Standards: R.5.2.9, W.5.2.5, S.1.2.6, M.1.2.10			
Learning Objective: *By the end of the session, students will be able to:* ● Work as a team to research and present on a branch of the armed forces ● Describe the similarities and differences among US armed forces ● Apply mathematical concepts of multiplication to real-world problems			
Soft Skills	professionalism, communication, critical thinking and problem-solving	**Resources**	Skills to Pay the Bills (STPTB) (for instructor reference to define each soft skill category) NC Career Clusters Guide (for instructor reference) Handouts: Skills for Success: Armed Forces - one for each student Math practice - one for each student
Additional Materials ● Skills for Success: Armed Forces handout, 1 for each student ● Math practice, 1 for each student. ● Art supplies (glue, glitter, markers, paint, etc.) ● Pencils, paper, and scissors ● Computers for student use			
Icons	💭 **Activity**	✔ **Check-In**	⟲ **Review**

PREPARATION

- Review the worksheets and games on education.com and print out the following worksheets:
- Review the Instructional Support Guide and print/prepare referenced scaffolds.
- Print handouts.
- Familiarize yourself with O*NET
- Familiarize yourself with Skills to Pay the Bills, though it won't be used directly in this lesson.

INTRODUCTION (30 min)

Welcome students to the class!

Divide the class into small teams or pairs and provide each group with a list of fun and challenging tasks to complete within a time limit.

Tasks can include activities like solving riddles, creating a team chant, or building a paper airplane. Emphasize that successful completion of tasks requires teamwork, communication, problem-solving, and critical thinking.
After the activity, gather the students and facilitate a discussion about their experiences, highlighting the importance of teamwork and the various skills needed for success.

Allow 20 minutes for this icebreaker activity.

Ask students what they know or think about the armed forces. Encourage them to share their thoughts, ideas, and any experiences they might have had with the military or veterans.
Prompt questions such as: *"What comes to mind when you think about the armed forces?" "Do you know anyone who has served in the military?"*
Listen to their responses and facilitate a respectful and open discussion to build awareness and clarify misconceptions.

Share the objectives of the lesson. Explain that today's lesson will focus on exploring careers within the armed forces and the skills needed to excel in these careers. Emphasize the significance of teamwork, professionalism, problem-solving, and critical thinking in various roles within the military.

VOCABULARY, READING & WRITING (30 min)

Distribute the Skills for Success: Armed Forces handout to students.

Have students take turns reading the passage out loud. Ask students to share any words or phrases that are new to them.

Discuss these words and phrases and their meanings.

💭 REFLECTION (10 minutes)

- ✔ Ask 3-4 students to share the answers to the comprehension questions.

Engage students in a brief class discussion about the significance of teamwork, dedication, problem-solving, and critical thinking in armed forces careers.

Lower Level	**Higher Level**
Provide students with sentence starters to answer the comprehension questions.	Challenge students to find example articles on how teamwork, dedication, problem-solving and critical thinking skills are applied to real-life scenarios in the armed forces.

MATHEMATICS (45 min)

Review of Multiplication by Multiples of 10:

Begin by quickly reviewing the concept of multiplication and refreshing students' memory on the multiplication facts they have learned in previous lessons.
Remind them about the concept of place value and how it relates to multiplication.
Introduction to Multiplication by Multiples of 10:

Recap the concept of multiplication by multiples of 10 from the previous lessons.

Explain that when multiplying a one-digit number by a multiple of 10 (e.g., 9 x 80, 5 x 60), we can use strategies based on place value and the properties of operations to simplify the calculation.

Strategies for Multiplying by Multiples of 10:
Demonstrate and explain the strategies students can use:

a) Strategy 1: Place Value Shifting: Explain that multiplying by 10 shifts the digits to the left by one place. For example, 9 x 80 can be visualized as 9 x 8 tens or 90.
b) Strategy 2: Property of Operations: Explain that when multiplying by multiples of 10, we can first multiply the one-digit number by the other factor (e.g., 9 x 8) and then append zeros to the product based on the number of tens in the multiple of 10 (e.g., 72 + 0 zeros = 720).

Provide real-world scenarios related to the armed forces that require multiplication by multiples of 10.

For example, "A military base has 5 battalions, and each battalion has 60 soldiers. How many soldiers are there in total?" or "An aircraft carrier can hold 9 planes, and each plane carries 70 missiles. How many missiles can the aircraft carrier hold?"

Engage students in small group discussions to solve these problems, encouraging them to use the multiplication strategies they have learned.

Distribute practice exercises or worksheets that focus on multiplying one-digit numbers by multiples of 10.

Encourage students to use the strategies discussed earlier to solve the exercises.

Walk around the classroom, providing support and guidance as needed.

💭 REFLECTION (15 minutes)

Pause at various points to check for understanding. Ask questions like

a) "What strategy can we use to multiply a one-digit number by a multiple of 10?"
b) "Can you give an example of a real-world situation where multiplication is useful in the armed forces?"

Address any misconceptions or provide additional explanations as necessary.

✔ Review the answers to the problems with the whole class.

Lower Level	Higher Level
Consider pairing students up. Provide visual aids if needed.	Provide more complex word problems that require multiple steps to solve. These problems can involve finding the total number of objects or quantities in

different scenarios related to the armed forces.
Consider assigning the following:

- In a military exercise, there are 4 platoons, and each platoon consists of 30 soldiers. Each soldier is equipped with 3 ammunition boxes, and each ammunition box contains 50 bullets. How many bullets are there in total?
- The Army has 6 divisions, and each division consists of 5 brigades. Each brigade is equipped with 10 tanks, and each tank requires 8 crew members. How many crew members are needed to operate all the tanks in the Army?
- The Air Force has 8 squadrons, and each squadron has 12 fighter jets. Each fighter jet carries 2 missiles, and each missile can hit 3 targets. How many targets can be hit by all the fighter jets in the Air Force?

GROUP WORK (75 min)

Inform students that they will work in groups to learn more about careers in National Security and the armed forces.

Divide the class into seven groups, ensuring a balance of students with different abilities.
Assign each group a specific branch of the armed forces to research. For example, one group can focus on the Army, another on the Navy, and so on.
Clearly communicate the expectations and objectives for the group work activity.

Provide students with the reference link Our Forces as a resource for their research.

Instruct each group to explore their assigned branch, seeking information about its role, responsibilities, training, and career opportunities within that branch. Encourage students to delve into the history, structure, and key aspects of their assigned branch.

Emphasize the importance of critical thinking, problem-solving, and using reliable sources during their research process.

Review what students remember about using Google Docs or Google Slides for the group work activity from previous lessons. Instruct students to create a shared document or presentation to compile their research findings, create visual aids, and prepare their group's presentation. Encourage students to collaborate effectively, assign roles, and delegate responsibilities within their group.

Circulate among the groups, providing guidance, support, and clarification as needed.
Monitor the progress of each group, ensuring they stay on track and are actively engaged in the research and presentation preparation.

Offer assistance to groups that may be struggling with finding information or organizing their research effectively.

💭 REFLECTION (20 minutes)

✔Provide each group with an opportunity to present their findings to the class. Encourage active listening and engagement among students as they learn about the different branches of the armed forces.

After each presentation, facilitate a brief Q&A session to allow students to ask questions and seek clarification on the information presented.

INDEPENDENT WORK TIME (45 min)

Provide each student with a graphic organizer, such as a Venn diagram or a T-chart, to help them structure their thoughts and compare the different branches of the armed forces.

Instruct students to use the provided reference link Our Forces and any additional resources to gather information about the branches.

Encourage students to analyze and categorize the information, noting the similarities and differences between the branches in terms of roles, training, equipment, and missions.

Remind students to consider the importance of critical thinking and research skills in comparing and contrasting the branches effectively.

Throughout the independent work session, provide opportunities for students to ask questions, seek clarification, and receive feedback on their reflections and graphic organizers.

Walk around the classroom, offering support and guidance as needed, and provide specific feedback to help students improve their work.

💭 REFLECTION (20 minutes)

✔Ask 3-4 students to share their reflections or present their graphic organizers to the class. Encourage a discussion where students can share their key takeaways, insights, and observations about the armed forces and the skills they have developed through the research and reflection process. Facilitate a class discussion that highlights the importance of teamwork, dedication, problem-solving, critical thinking, and research skills in the context of armed forces careers.

WRAP-UP & REFLECTION (15 min)

Instruct students to individually reflect on their role in the group research activity and write it down.

Provide clear instructions for the reflection, emphasizing the importance of incorporating their understanding of teamwork, dedication, problem-solving, and critical thinking.

Remind students to reflect on their personal contributions to the group work, the challenges they encountered, and the skills they developed throughout the activity.

Distribute exit slips to students.
Ask for a few volunteers to share their reflections.
Collect and review the answers.

Skills for Success: The Armed Forces

Directions:
- Read the passage below with your instructor and the rest of the class.
- Answer the questions that follow with a partner.

The armed forces are not only about physical strength and teamwork; problem-solving and critical thinking skills are also crucial for success in these careers. Service members often face complex situations that require quick thinking and the ability to analyze information to make important decisions.

Problem-solving is an essential skill in the armed forces. Service members encounter challenges that demand creative solutions. For example, imagine a scenario where a military unit needs to cross a river during a mission. They must assess the situation, consider available resources, and determine the best way to overcome the obstacle. Problem-solving skills enable service members to think outside the box and find effective solutions to overcome obstacles they may encounter.

Critical thinking is equally important in armed forces careers. Service members must analyze information, evaluate different perspectives, and make informed judgments. For instance, during intelligence gathering, they examine data, assess its reliability, and draw conclusions. Critical thinking skills help them make sound decisions based on evidence and logic, ensuring the safety and success of their missions.

Furthermore, problem-solving and critical thinking skills go hand in hand with teamwork and dedication. In challenging situations, service members work together to identify problems, brainstorm solutions, and implement effective strategies. They rely on their collective knowledge and expertise to overcome obstacles and achieve their objectives. By combining problem-solving and critical thinking skills with teamwork and dedication, armed forces personnel can tackle complex missions with success.

The armed forces provide training and opportunities to develop problem-solving and critical-thinking skills. Service members participate in simulations, exercises, and scenarios that simulate real-life situations. Through these experiences, they learn to analyze information, think critically, and make quick decisions under pressure. They also undergo continuous training and education to sharpen their problem-solving abilities and enhance their critical thinking skills.

Problem-solving and critical thinking skills acquired in the armed forces can be valuable in civilian careers as well. Many service members transition into civilian life and find success in various fields such as engineering, healthcare, and law enforcement, where these skills are highly sought after.

Questions	Answers
1. What does the term "civilian" mean as used in the passage?	a) Member of the armed forces b) A person who serves in the Navy c) Someone who is not in the military d) A specialized branch of the armed forces
2. List two ways in which critical thinking is important in military careers.	
3. Give an example of how problem-solving skills are used in the armed forces.	
4. Explain why teamwork and dedication are important in the armed forces.	
5. Name two civilian careers where problem-solving and critical thinking skills acquired in the armed forces can be valuable.	

Math Practice

Directions:
- Solve each multiplication problem. Use strategies based on place value and properties of operations to find the product.

1. The Air Force has 9 squadrons, and each squadron has 10 fighter jets. How many fighter jets are there in the Air Force?

2. 8 x 40 = _____

3. 5 x 60 = _____

4. 9 x 30 = _____

5. 2 x 90 = _____

6. An Army division has 8 battalions, and each battalion has 30 tanks. How many tanks are there in the division?

7. The Coast Guard has 3 cutters, and each cutter can rescue 20 people. How many people can the Coast Guard cutters rescue in total?

8. An Air Force base has 4 hangars, and each hangar can accommodate 150 aircraft. How many aircraft can the base accommodate in total?

9. 2 x 300 = _____

10. 7 x 700 = _____

Reflection Exit Slip

In one sentence, describe what you learned in this lesson.

Today, I learned _____.

Is one of the careers discussed today of interest to you? Why or why not?

I liked / did not like _____ *career because*_____

_____.

Is there anything you still need help understanding?

What's one question you have?

Circle the emoji that shows how you feel about your mastery of content in this lesson.