WAMC Lab Template

Math Concept(s): Understanding and Applying Positive and Negative Integers

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Attach the following documents:

Lab Instructions: The students will play the game of "War" using a deck of playing cards. The students will flip one card at the same time. The partner who reads the product first "Wins." The objective if for one person to obtain all of the playing cards. The black cards are positive, and the red cards are negative. The place value cards have that value. Aces-1, Jokers-0, Jacks-11, Queens-12, Kings-13.

Student Handout(s): A multiplication table, if needed that has numbers to 13. Quarter sheets.

Rubric and/or Assessment Tool: Observations while the students are playing. Exit tickets will be turned in the end of class.

Indicate "*SPECIFIC*" relationship to Science, Technology, or Engineering: Construction, Engineering

Short Description (Be sure to include where in your instruction this lab takes place):

Lab Plan

Lab Title: Playing the card game "War."

Prerequisite skills: Recognize the basic multiplication facts.

Lab objective: Reinforce multiplication skills, and the rules of multiplying positive and negative numbers.

Standards:

Mathematics K–12 Learning Standards:

- Creating Equations: A-CED

Standards for Mathematical Practice:

- Practice 5: Use appropriate tools
- Practice 6: Attend to precision
- Practice 8: Look for and express regularity in repeated reasoning.

K-12 Learning Standards-ELA (Reading, Writing, Speaking & Listening):

- RST.9-10.3 Follow precisely a complex multistep procedure when carrying out experiments, or performing technical tasks, attending to special cases or exceptions defined in the texts (cards.)

Leadership/21st Century Skills:

21st Century Interdisciplinary themes (Check those that apply to the above activity.)

☐ Global Awareness ☐ Financial/Economic/Business/Entrepreneurial Literacy ☐ Civic Literacy
☐ Health/Safety Literacy ☐ Environmental Literacy

21st Century Skills (Check those that students will demonstrate in the above activity.)

LEARNING AND INNOVATION

Creativity and Innovation
- ☐ Think Creatively
- ☐ Work Creatively with Others
- ☐ Implement Innovations

Critical Thinking and Problem Solving
- ☐ Reason Effectively
- ☐ Use Systems Thinking
- ☐ Make Judgments and Decisions
- ☒ Solve Problems

Communication and Collaboration
- ☒ Communicate Clearly
- ☒ Collaborate with Others

INFORMATION, MEDIA & TECHNOLOGY SKILLS

Information Literacy
- ☐ Access and Evaluate Information
- ☐ Use and manage Information

Media Literacy
- ☐ Analyze Media
- ☐ Create Media Products

Information, Communications and Technology (ICT Literacy)
- ☐ Apply Technology Effectively

LIFE & CAREER SKILLS

Flexibility and Adaptability
- ☒ Adapt to Change
- ☐ Be Flexible

Initiative and Self-Direction
- ☐ Manage Goals and Time
- ☐ Work Independently
- ☒ Be Self-Directed Learners

Social and Cross-Cultural
- ☒ Interact Effectively with Others
- ☐ Work Effectively in Diverse Teams

Productivity and Accountability
- ☒ Manage Projects
- ☒ Produce Results

Leadership and Responsibility
- ☐ Guide and Lead Others
- ☒ Be Responsible to Others

Teacher Preparation: (What materials and set-up are required for this lab?)

Materials

- Playing cards

Set-Up Required:

- Put students in pairs

Lab Organization Strategies:

Leadership (Connect to 21st Century Skills selected):

- The students are responsible for identifying the product first.

Cooperative Learning:

- Students are working together.

Expectations:

- The students will be equally involved in the game. If a student is off-task it will be apparent.

Timeline:

- 40 minutes

Post Lab Follow-Up/Conclusions:

Discuss real world application of learning from lab

- Students have to recognize how to multiply negatives and positives in real life situations.

Career Applications

- Business

Optional or Extension Activities

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