These activities are designed for small groups of 3-4 students, promoting engagement and math skills development. All activities are culturally relevant to the Maryland/D.C. area and can be completed within a 90-minute class period.

Thursday Activities:

Activity 1: "DC Multiplication Mystery" (3.OA.D.9 and 3.NBT.A.1)

Objective: Practice multiplication and addition skills in solving a DC-themed mystery.

Materials: DC-themed multiplication and addition problems (examples provided), math journals, pencils.

Problems:

- If there are 8 cherry blossom trees, and each tree has 6 branches, how many branches in total?
- The height of the Washington Monument is 555 feet. If it's 210 feet taller than the Lincoln Memorial, how tall is the Lincoln Memorial?

Solutions:

- Students perform the multiplication: 8 cherry trees * 6 branches = 48 branches.
- Students calculate the height of the Lincoln Memorial by subtracting 210 feet from the Washington Monument's height: 555 feet - 210 feet = 345 feet.

Activity 2: "DC Money Math Challenge" (3.NBT.A.2 and 3.OA.D.9)

Objective: Practice addition, subtraction, and money skills through a DC-themed challenge.

Materials: DC-themed money word problems (examples provided), math journals, pencils.

Problems:

- Admission to the Smithsonian Museum is $12. A souvenir costs $8. How much money do you need for admission and a souvenir?
- If you have $50 and you spend $28 on a tour of the National Mall, how much money do you have left?

Solutions:

- Students perform addition: $12 (admission) + $8 (souvenir) = $20.
- Students perform subtraction: $50 (initial amount) - $28 (spent on the tour) = $22.

Activity 3: "DC Landmark Geometry" (3.NBT.A.1 and 3.MD.A.1)

Objective: Explore place value and measurement by comparing the heights of DC landmarks.

Materials: Heights of DC landmarks (examples provided), math journals, rulers.

Problems:

- Which is taller, the Washington Monument (555 feet) or the Jefferson Memorial (129 feet)?
- Estimate the length of the Reflecting Pool in front of the Lincoln Memorial based on the picture. Then measure it with a ruler.

Solutions:

- Students compare the heights and determine that the Washington Monument is taller.
- Students make an estimation (e.g., 60 feet) based on the picture. Using a ruler, they measure the actual length (e.g., 70 feet).

Activity 4: "DC Metro Time Challenge" (3.MD.A.1 and 3.NBT.A.2)

Objective: Practice telling time and solving time-related problems based on DC Metro schedules.

Materials: DC Metro schedules, analog clocks, math journals, pencils.

Problems:

- If the Metro train departs at 9:15 AM and arrives at the next station at 9:30 AM, how long is the ride in minutes?
- If the next Metro train arrives at 2:45 PM, how many hours until then?

Solutions:

- Students calculate the time interval: 9:30 AM - 9:15 AM = 15 minutes.
- Students calculate the time until the next train: 2:45 PM - current time (e.g., 1:15 PM) = 1.5 hours.

Friday Activities:

Activity 5: "DC Monument Measurements" (3.NBT.A.1 and 3.MD.A.1)

Objective: Explore place value and measurement by estimating and measuring the dimensions of DC monuments.

Materials: Pictures of DC monuments, math journals, rulers.

Problems:

- Estimate the height of the Washington Monument based on the picture. Then measure it with a ruler.
- Estimate the base circumference of the Jefferson Memorial based on the picture. Then measure it with a ruler.

Solutions:

- Students make an estimation (e.g., 500 feet) based on the picture. Using a ruler, they measure the actual height (e.g., 555 feet).
- Students make an estimation (e.g., 250 feet) based on the picture. Using a ruler, they measure the actual circumference (e.g., 270 feet).

Activity 6: "DC Timeline Challenge" (3.MD.A.1 and 3.NBT.A.2)

Objective: Practice telling time and solving time-related problems based on DC historical events.

Materials: DC historical events timeline, analog clocks, math journals, pencils.

Problems:

- The Lincoln Memorial was dedicated in 1922, and the Washington Monument was completed in 1884. How many years apart were these events?

- If the signing of the Declaration of Independence occurred in 1776, how many years ago was it from 2023?

Solutions:

- Students calculate the time interval: 1922 (Lincoln Memorial) - 1884 (Washington Monument) = 38 years.
- Students calculate the time interval: 2023 (current year) - 1776 (Declaration of Independence) = 247 years.

Activity 7: "DC Area Map Puzzles" (3.NBT.A.2 and 3.OA.D.9)

Objective: Practice addition, subtraction, and map skills with DC area maps.

Materials: DC area maps with math problems (examples provided), math journals, pencils.

Problems:

- If the distance between the White House and the Capitol Building is 2.5 miles, and the distance between the Washington Monument and the Lincoln Memorial is 1.2 miles, what is the total distance if you visit both pairs of landmarks?
- If you have 5 hours to explore the National Mall and you spend 2.5 hours at the Washington Monument, how much time do you have left for other landmarks?

Solutions:

- Students perform addition: 2.5 miles (White House to Capitol) + 1.2 miles (Washington Monument to Lincoln Memorial) = 3.7 miles.
- Students perform subtraction: 5 hours (total time) - 2.5 hours (time at Washington Monument) = 2.5 hours.

Activity 8: "DC Geometry Scavenger Hunt" (3.MD.A.1 and 3.NBT.A.1)

Objective: Explore geometry and measurements by identifying shapes in DC architecture.

Materials: Pictures of DC buildings and monuments, math journals, rulers.

Problems:

- Identify and draw at least three geometric shapes that you see in the picture of the Capitol Building.
- Measure the length and width of the Lincoln Memorial's reflecting pool based on the picture. Calculate its area.

Solutions:

- Students identify and draw shapes like rectangles (windows), triangles (roof), and circles (dome).
- Using a ruler, students measure the length (e.g., 200 feet) and width (e.g., 150 feet). They calculate the area: Length x Width = 200 feet x 150 feet = 30,000 square feet.