Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ #\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_\_\_\_\_

**Unit #3: Fraction Concepts, Addition, and Subtraction**

Performance Task: “Cross Country Challenge!!”



Calling all cross country runners!!!! Your coach is giving you the freedom of running your own course for today’s practice. He is providing you with a map, partial route distances, and asking that you run anywhere between 3 and 5 miles.

Your job on this Performance Task is to mathematically prove that your route meets your coach’s expectations. How long is your total route? Which roads did you take to complete your 3 to 5 mile run?

In this task:

* Determine the route you will use to complete your 3 to 5 mile run. You must start at the school and end at the school.
* Justify mathematically that your run meets your coach’s expectations for distance.
* Use pencil on the first map for your brainstorming and thinking. Use colored pencil on the second map for your **final** determined practice route.
* Complete the chart to organize your race route, partial distances, and total distance run.
* Give precise, accurate directions within the chart so that your coach understands the exact route you plan to take.

**Work Space:**

Use the provided space for mathematical calculations and problem solving.

**Brainstorming Map**



mile

mile

mile

Truman Drive

mile

Harrison Avenue

Eisenhower Drive

Kennedy Drive

Clinton Drive

Reagan Avenue

Lincoln Avenue

Washington Avenue

Jefferson Avenue

Roosevelt Avenue

mile

mile

mile

mile

mile

mile

mile

mile

mile

mile

mile

mile

mile

Nixon Boulevard

**Cross Country Map – FINAL COPY**



mile

mile

mile

Truman Drive

mile

Harrison Avenue

Eisenhower Drive

Kennedy Drive

Clinton Drive

Reagan Avenue

Lincoln Avenue

Nixon Boulevard

Washington Avenue

Jefferson Avenue

Roosevelt Avenue

mile

mile

mile

mile

mile

mile

mile

mile

mile

mile

mile

mile

mile

**Cross Country Challenge Route**

|  |  |  |
| --- | --- | --- |
| **Route** | **Directions** | **Distance** |
| *Example* | *Leave the school and turn right. Travel to the end of Roosevelt Ave.* | *1 ½ miles* |
| Step 1 |  |  |
| Step 2 |  |  |
| Step 3 |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| **TOTAL DISTANCE TRAVELED:** |  | |

**“Cross Country Challenge” Scoring Rubric**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Primary Criteria** | | | | |
|  | **Advanced** | **Proficient** | **Basic** | **Below Basic** |
| **Number Models and Evidence of Strategies and Process** | Always writes true numerical equations for calculating fractional parts of the route.  Always includes appropriate labels/units. | Mostly writes true numerical equations for calculating fractional parts of the route.  Mostly includes appropriate labels/units. | Sometimes writes true numerical equations for calculating fractional parts of the route.  Labels/units are occasionally included and/or appropriate. | Unable to write numerical equations for calculating fractional parts of the route.  Labels/units are rarely included and/or appropriate. |
| **Applies Fraction Concepts to Real World Situations** | Strong understanding of applying fraction concepts to real world situations.  Proves mathematically that the chosen route fits within the 3 to 5 mile range. | Solid understanding of applying fraction concepts to real world situations.  Proves mathematically that the chosen route fits within the 3 to 5 mile range. | Some understanding of applying fraction concept to real world situations.  Proves mathematically that the chosen route fits within the 3 to 5 mile range; however, some calculations were inaccurate. | Limited understanding of how fraction concepts are used in the real world.  There is little to no math to support that the chosen route fits within the 3 to 5 mile range. |
| **Requirements** |  | A final map route is provided.  The completed chart shows each step of the chosen route, including total distance.  The completed chart includes directions for each step of the run. | A final map route is provided.  An incomplete or inaccurate chart is included. | A final map route is not provided.  An incomplete or inaccurate chart is included. |
| **Secondary Criteria** | | | | |
|  | **Advanced** | **Proficient** | **Basic** | **Below Basic** |
| **Written Directions** | Directions always include precise and accurate descriptions for each step of the chosen route. | Directions include mostly precise and accurate descriptions for each step of the chosen route. | Directions include somewhat precise and accurate descriptions for most steps of the chosen route. | Directions include unclear and inaccurate descriptions for most steps of the chosen route. |