**Lesson Topic**

 Speed and distance

**State Standards**

6.RP

8.EE

**Relation to USS Kidd**

Students will use the technical specifications of the Kidd to determine speed and distance.

**Lesson Goal**

Students will gain an understanding of the math required to determine travel time.

**Objectives**

* Calculate the routes of the USS Kidd using scale and ratios;
* Determine the speed and travel time of the ship using the ratios and distances traveled;

**Materials needed for lesson**

* World Map, Computer
* Worksheet with Kidd information

Lesson

**Activity One: Math in Wartime**

* Direct students to the question on the board. Read the question aloud for the students, *How is math used in war*?
	+ Solicit responses.
	+ Guide the answers towards appropriate responses (weights, distances, speed, etc.) if students are struggling.
	+ Write answers on the board for students.
	+ Confirm or add to students’ answers.
	+ Lead a class discussion to help students understand how math relates to war.

Pass out

* Maps and worksheet and rulers.
* Give students the actual distance from Pearl to Wake
* Instruct students to round the distance to the tens place.
* Have students create a scale using the inches to actual distance ratio.
* Give the students two points on the map and ask them if the Kidd could travel between them and how long it would take it to get there.

**Assessments**

* Lead a classroom discussion about math and how it is involved in war; have students use specific examples from the lesson.
* Instruct students to write a one-page summary of what they learned and why math was important in war, specifically World War II.

**Relation to USS Kidd**

Travel time of the Kidd

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| **https://upload.wikimedia.org/wikipedia/en/thumb/a/a4/Flag_of_the_United_States.svg/54px-Flag_of_the_United_States.svg.pngUnited States** |
| Name: | *Kidd* |
| Namesake: | [Isaac C. Kidd](https://en.wikipedia.org/wiki/Isaac_C._Kidd) |
| Builder: | [Federal Shipbuilding and Drydock Company](https://en.wikipedia.org/wiki/Federal_Shipbuilding_and_Drydock_Company), [Kearny, New Jersey](https://en.wikipedia.org/wiki/Kearny%2C_New_Jersey) |
| Laid down: | 16 October 1942 |
| Launched: | 28 February 1943 |
| Sponsored by: | Mrs. Isaac C. Kidd |
| Commissioned: | 23 April 1943 |
| Decommissioned: | 10 December 1946 |
| Recommissioned: | 28 March 1951 |
| Decommissioned: | 19 June 1964 |
| Struck: | 1 December 1974 |
| Nickname(s): | Pirate of the Pacific |
| Honors andawards: | 12 [Battle Stars](https://en.wikipedia.org/wiki/Battle_Stars) |
| Status: | [Museum ship](https://en.wikipedia.org/wiki/Museum_ship) in [Baton Rouge, Louisiana](https://en.wikipedia.org/wiki/Baton_Rouge%2C_Louisiana) |
| **General characteristics** |
| Class and type: | [Fletcher class destroyer](https://en.wikipedia.org/wiki/Fletcher_class_destroyer) |
| Displacement: | 2,050 tons |
| Length: | 376 ft (115 m) |
| Beam: | 39 ft 8 in (12.09 m) |
| Draft: | 17 ft 9 in (5.41 m) |
| Propulsion: | * 4 oil-fired [boilers](https://en.wikipedia.org/wiki/Boiler),
* 2 [steam turbines](https://en.wikipedia.org/wiki/Steam_turbine),
* 2 shafts,
* 60,000 shp (45,000 kW)
 |
| Speed: | 35 knots (65 km/h; 40 mph) |
| Range: | 6,500 nmi (12,000 km; 7,500 mi) at 15 knots (28 km/h; 17 mph) |
| Complement: | 329 |