



## LESSON PLAN

# Math Around the World

Topic: **Time Zones** | Grade Level: **Elementary (1<sup>st</sup>–4<sup>th</sup>)**  
Subject: **Math** | Time: **30 minutes**

### OBJECTIVE(S):

Students will learn about time zones and military service members often being deployed to countries around the world that are located in different time zones. Students will calculate the time differences between countries.

### MATERIALS NEEDED:

- *Where Are You Going?* videos from the MilitaryKidsConnect.org website
- Map of the world, with the United States and six deployment countries (Afghanistan, Iraq, Djibouti, South Korea, Philippines, and Panama) indicated
- "Time Difference Math Problems," "Time Difference Counting Tool," and "Time Difference Worksheet"
- Go to "Related Materials" in on-line version of this lesson plan to access all required links: [www.militarykidsconnect.org/p/lp/elem](http://www.militarykidsconnect.org/p/lp/elem)

### OTHER RESOURCES REQUIRED:

- Computer with classroom display and Internet access
- Blackboard or whiteboard

## LESSON

### Suggested Activity Set-up and Discussion (2 minutes)

Teacher explains that:

- Some U.S. service members have to go to other countries to do their jobs. We have military personnel deployed all over the world – some in places where there are wars or conflicts, others in countries that are at peace but need our help.
- Their family members like to stay in touch with phone calls or video chats, but sometimes there's a problem. We're on different time zones. When it's daytime in the United States, it can be the middle of the night in faraway places.
- Students are going to watch short videos about two of the countries where our troops are deployed (Afghanistan and Djibouti). Teacher can show as much of these videos as time allows or of interest.
- Afterward, the class will investigate time differences between countries.

### Video (3 minutes)

- Cue and screen *Where Are You Going?* videos

### Teacher-Led Discussion (10 minutes)

- Show students the world map
- Distribute the "Time Difference Counting Tool," "Time Difference Math Problems," and "Time Difference Worksheet" to students
- Draw the counting tool on the blackboard or whiteboard
- Explain/demonstrate how to use the tool

### Whole-Class Discussion (5 minutes)

- Using the "Time Difference Math Problems," ask for student volunteers to solve the problems on the board. (Another options would be to work out several problems as demonstration and then assign students to complete the worksheet.)

### Worksheet Activity (10 minutes)

- Working individually, students complete the "Time Difference Worksheet"

**WORKSHEET**

**Time Difference Word Problems**

1. Josh lives in New York, where it's 8:00 p.m. His dad is deployed in South Korea. What time is it there?

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2. Mrs. Jones is working in Afghanistan. It's 1:30 in the afternoon there. Her family lives in New York, and the children go to bed at 9:00. Is it too late for her to call them? Explain why or why not.

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3. It is 6:32 a.m. in New York, and it's just getting light outside. Would it be light or dark in Panama? Explain your answer.

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4. Josie is visiting Djibouti with her mother. Her father is stationed in Iraq. If it's noon in Djibouti, what time is it in Iraq?

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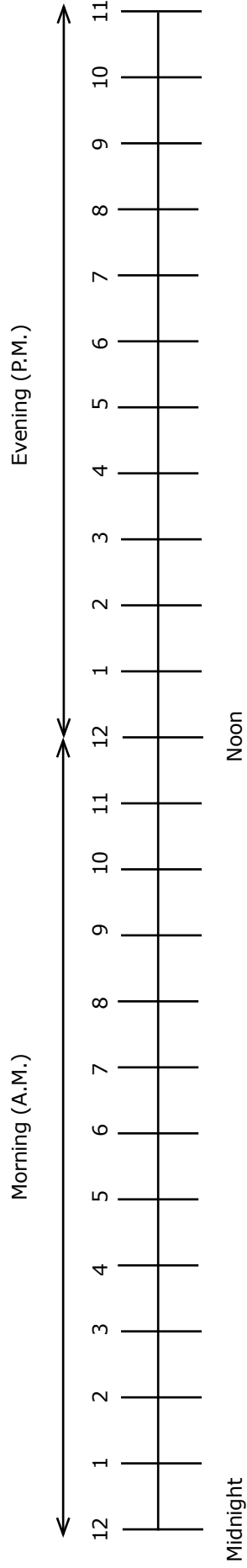
5. Jim lives in Iraq. His twin brother, Tim, lives in the Philippines. Their grandmother is in New York and wants both boys to call her at 2:00 p.m.

At what time will Jim have to call? \_\_\_\_\_

At what time will Tim need to call? \_\_\_\_\_

# WORKSHEET

## Time Difference Counting Tool



If it is 9:00 a.m. in New York City, here are the times in our deployment countries:

Location	Time	Time Difference Relative to New York
Panama	8:00 a.m.	1 hour earlier (-1)
Iraq	4:00 p.m.	7 hours later (+7)
Djibouti	4:00 p.m.	7 hours later (+7)
Afghanistan	5:30 p.m.	8 and a half hours later (+8 ½)
Philippines	9:00 p.m.	12 hours later (+12)
South Korea	10:00 p.m.	13 hours later (+13)

## WORKSHEET

# Time Difference (1<sup>st</sup>–2<sup>nd</sup> Grade)

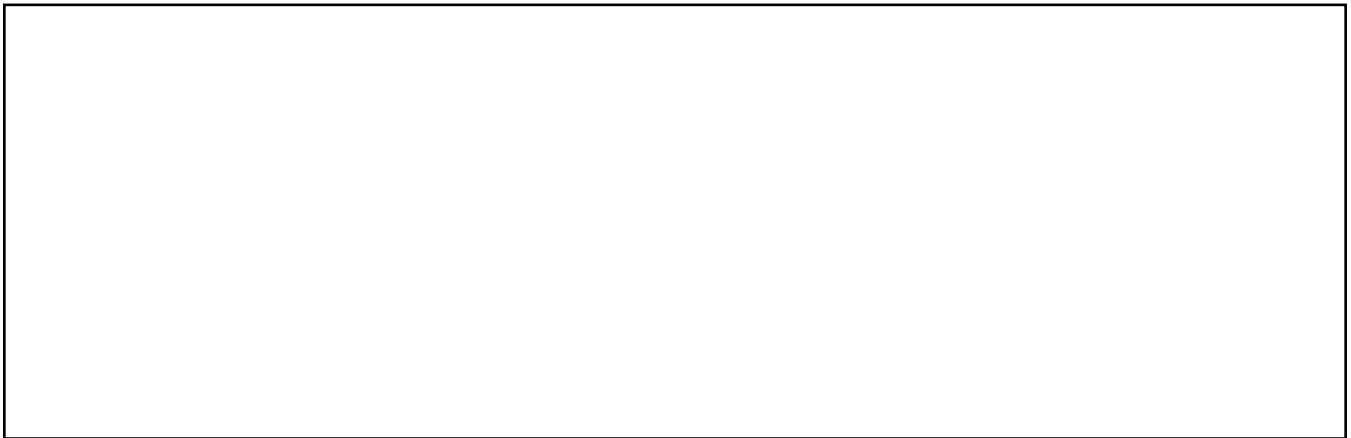
### Directions:

- Using the “Time Difference Counting Tool,” solve the word problem below.
- Be sure to show your work!
- Then draw a picture of what a child in New York might be doing, and what a child in Afghanistan might be doing.

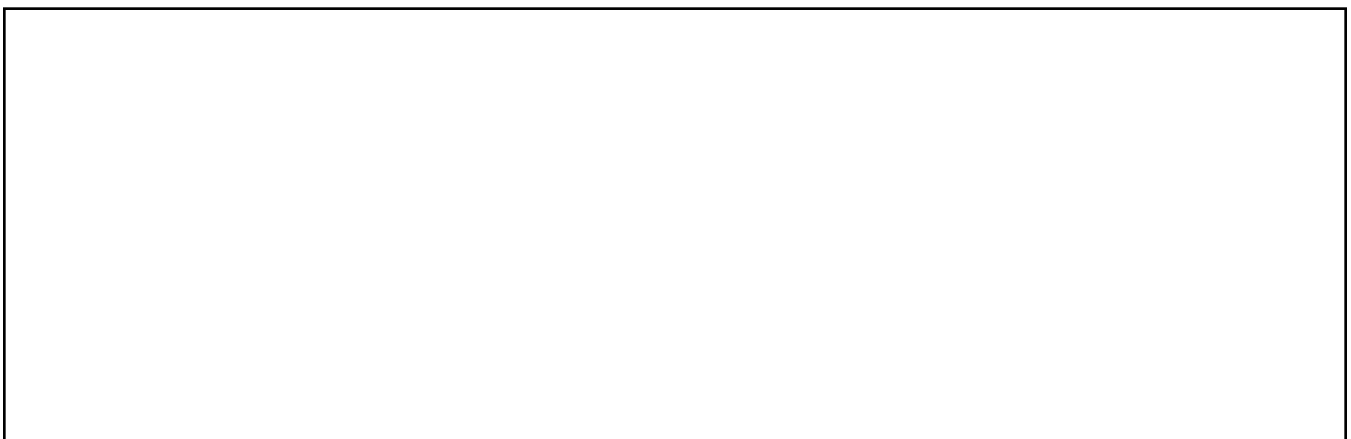
Word Problem: It is 3:00 in the afternoon on a hot New York day. What time is it in Afghanistan?

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### NEW YORK:



### AFGHANISTAN:



# WORKSHEET

## Time Difference (3<sup>rd</sup>–4<sup>th</sup> Grade)

### Directions:

Using the "Time Difference Counting Tool," create two word problems. Then pass this Worksheet to your partner to solve the problems!

### Word Problem #1:

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### Answer:

### Word Problem #2:

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### Answer: