

# Lesson 2:

## Look Out Below . . . World Geography!

### FLIGHT ROUTE

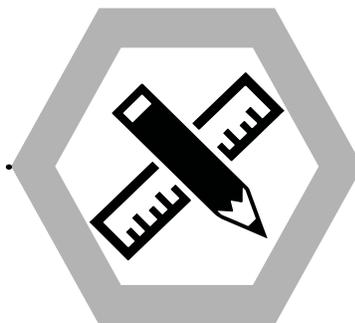
Where You'll Go Today

- In this lesson you will:
  - Discover how the current time zones came to be.
  - Learn how to calculate the current time anywhere in the world as you explore five of the time zones in the Southwest Airlines system.
  - Discover why airports use 3-Letter City Codes and where those codes come from.
  - Re-visit the Adopt-A-Pilot **F.L.I.G.H.T.** Values focusing on the value of **IMAGINATION**.



### MATERIALS

- 3-Letter City Code Chart (in the Addendum)
- Adopt-A-Pilot Student Map (in the Addendum)



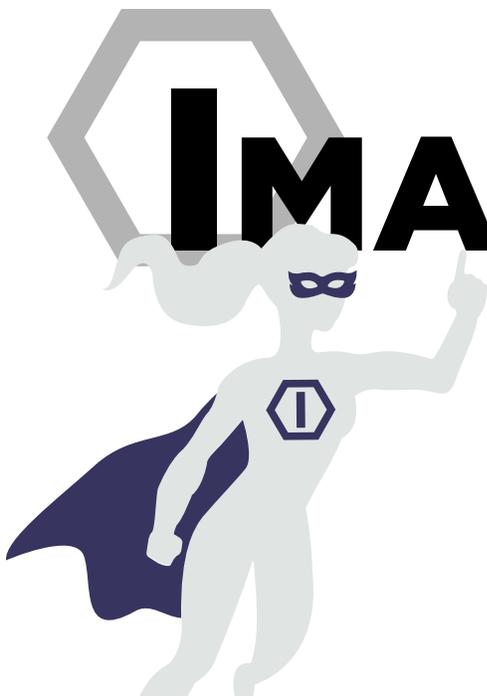
### THE ADOPT-A-PILOT VALUES

# IMAGINATION

noun |

: the action of forming new ideas, images, or concepts

: the ability to form a picture in your mind of something you have not seen or experienced



# CRUISE - TIME TRAVEL

## In-Class Activity 1

Have you every wondered what someone in a different part of the world is doing at the exact same time as you are? If you live in a different time zone it's probably not the same thing. Imagine you live in California and your family is eating dinner.

At that very same time, kids in New York are probably getting ready for bed. How is that so? It is because you live in different time zones. In this activity you are going to learn how to calculate the current time anywhere in the world.

### TIME ZONES

- We did not always have time zones. In the 1800's most towns set their clocks based on 'high noon', or when the sun was at it's highest overhead. Each city called this time 'local time', so there were thousands and thousands of different 'local times' throughout the world. With the invention of the railroads, all these 'local times' were confusing. It became necessary to create a different system with fewer 'local times'. This is how the international time zone system was adopted. Today, there is a time zone for every hour of the day starting at a line of longitude called the Prime Meridian in Greenwich, England.
- *Time Zones: any region that uses the same standard time.*
- Time zones are imaginary lines usually based on a geographical reference like a state/country border, river, or other geological features.
- Each time zone has its own unique name.
- There are four major time zones in the continental United States: Pacific, Mountain, Central and Eastern.
  - Southwest Airlines flies to all four of these time zones as well as the Atlantic time zone (which is located east of the Eastern time zone) and soon will fly to the Hawaiian time zone too.

### PART ONE: CALCULATING TIME CHANGES

- Each time you cross a time zone line you are 'traveling' through time!
  - For example: Lets say you and your best friend are standing right on top of the border between Nevada (Pacific Time Zone) and Utah (Mountain Time Zone). You take one step into Nevada and your friend takes one step into Utah. The time on your cell phone will read 8:00 a.m. but the time on your friend's phone will read 9:00 a.m.! What? That doesn't make any sense! You can still see your friend, hear them, reach out and touch their hand. So, what happened? Very simply, the two of you are now on different sides of a time zone line, making the current time different for you and your friend!

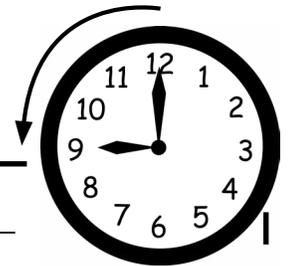
- Calculating the current time in any time zone is easy. All you have to know is how many time zone lines are crossed and how to count clockwise (forwards) and counter-clockwise (backwards) on an analog clock.
  - When traveling from west to east you count clockwise (forwards).
  - When traveling from east to west you count counter-clockwise (backwards).

**Directions:** Using the resources in the Addendum work as a class to calculate the time change questions.

1. Which time zone is **SFO** located in? \_\_\_\_\_
2. Which time zone is directly to the east of the Pacific time zone? \_\_\_\_\_
3. Which time zone is **DAL** located in? \_\_\_\_\_
4. Which time zone is directly east of the Central time zone? \_\_\_\_\_
5. List three cities (using the 3-Letter City Code) Southwest Flies to in the Atlantic time Zone?
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_

**PART TWO: TRAVELING FROM EAST TO WEST**

**Directions:** Using the resources in the Addendum work as a class to calculate the time change questions.



1. What city does the 3-Letter City Code **DTW** stand for? \_\_\_\_\_
2. Circle **DTW** on your Adopt-A-Pilot Student Map.
3. What state is **DTW** in? \_\_\_\_\_ What is the state capital? \_\_\_\_\_
4. If it is 9:00 p.m. in **DTW**, what do you think kids your age are doing? \_\_\_\_\_  
\_\_\_\_\_
5. What city does the 3-Letter City Code **BOI** stand for? \_\_\_\_\_
6. Circle **BOI** on your Adopt-A-Pilot Student Map.
7. What state is **BOI** in? \_\_\_\_\_ What is the state capital? \_\_\_\_\_
8. Count how many time zone lines are crossed between **DTW** and **BOI**. Record your answer: \_\_\_\_\_
9. Is **DTW** east or west of **BOI**? \_\_\_\_\_

**To calculate what time it is when traveling from east to west, you count backwards!**

10. Looking at the clock, start at nine o'clock and count backwards (counter-clockwise) the number of time zone lines you crossed. What time is it on the clock? \_\_\_\_\_
11. What do you think kids your age are doing in **BOI** at this time \_\_\_\_\_

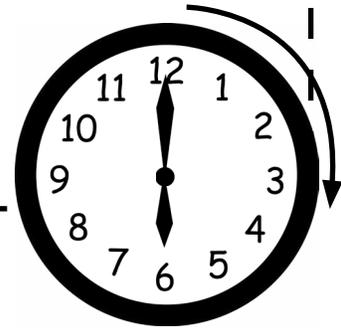
### PART THREE: TRAVELING FROM WEST TO EAST

**Directions:** See directions on page 21.

1. What city does the 3-Letter City Code **SEA** stand for? \_\_\_\_\_
2. Circle **SEA** on your Adopt-A-Pilot Student Map.
3. What state is **SEA** in? \_\_\_\_\_ What is the state capital? \_\_\_\_\_
4. If it's 6:00 a.m. in **SEA**, what do you think kids your age are doing? \_\_\_\_\_  
\_\_\_\_\_
5. What city does the 3-Letter City Code **MCO** stand for? \_\_\_\_\_
6. Circle **MCO** on your Adopt-A-Pilot Student Map.
7. What state is **MCO** in? \_\_\_\_\_ What is the state capital? \_\_\_\_\_
8. Count how many time zone lines are crossed between **SEA** and **MCO**. Record your answer: \_\_\_\_\_
9. Is **SEA** east or west of **MCO**? \_\_\_\_\_

**To calculate what time it is when traveling from west to east, you count forwards!**

10. Looking at the clock, start at six o'clock and count forwards (clockwise) the number of time zone lines you crossed. What time is it on the clock? \_\_\_\_\_
11. What do you think kids your age are doing in **MCO** at this time? \_\_\_\_\_  
\_\_\_\_\_



### BONUS QUESTIONS:

1. What ocean is east of **MCO**? \_\_\_\_\_
2. What ocean is west of **SEA**? \_\_\_\_\_
3. Name the 5 big lakes close to **DTW** (so big you might call them 'Great'):  
H: \_\_\_\_\_ E: \_\_\_\_\_  
O: \_\_\_\_\_ S: \_\_\_\_\_  
M: \_\_\_\_\_
6. If you leave Denver, Colorado (**DEN**) at 9:00 a.m. and fly 2 hours and 30 minutes to Oakland, California (**OAK**) what time is it in **OAK** when you land? \_\_\_\_\_
7. What Mountain range is west of **DEN**? \_\_\_\_\_

## LANDING.....

### Wrapping Up the Lesson

- Congratulations! Today you learned:
  - How the current twenty-four time zones came to be.
  - How to calculate the current time in any time zone by counting backwards and forwards.
  - The location of five time zones: Pacific, Mountain, Central, Eastern, and Atlantic.



## POST FLIGHT CHECKLIST.....

### A Briefing For Your Pilot's Next Visit

- While your Pilot is away, complete the **2ND SOLO FLIGHT – A JOURNEY THROUGH TIME** activity.  
This activity will reinforce what you learned about time changes.
- Between now and the next time your Pilot visits, your teacher may have you complete **LESSON 2A: HAVE THE COURAGE TO SOAR!** This geography and math lesson follows your Pilot while they are at work.
- During your Pilot's next visit, you will explore the world of science and learn how a 75 ton airplane flies. You will also re-visit the Adopt-A-Pilot **F.L.I.G.H.T.** Values, exploring the value of **HONESTY**.



# 2ND SOLO FLIGHT - A JOURNEY THROUGH TIME

At-Home Activity

## PART ONE: THE ADOPT-A-PILOT F.L.I.G.H.T. VALUES

**IMAGINE** being able to travel anywhere in the world or universe. List the five top places you would go.

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

e. \_\_\_\_\_

## PART TWO: TIME TRAVEL

1. To calculate time changes if you are traveling from east to west, you count (select one):

a. Forwards

b. Backwards

2. To calculate time changes if you are traveling from west to east you count (select one):

a. Forwards

b. Backwards

3. Assume it is 7:30 a.m. in **STL**. What time is in the following cities?

*(Hint: First determine the time zone for **STL**)*

a. **GSP**: \_\_\_\_\_

b. **AUS**: \_\_\_\_\_

c. **ABQ**: \_\_\_\_\_

d. **RNO**: \_\_\_\_\_

e. **SJU**: \_\_\_\_\_

f. **Your home town**: \_\_\_\_\_

4. What city is **STL**? \_\_\_\_\_ What is the state capital? \_\_\_\_\_

5. If your Pilot departs from Baltimore, Maryland (**BWI**) at 6:30 a.m. and flies 5 hours and 25 minutes to San Diego, California (**SAN**), what time is it in **SAN** when they land? \_\_\_\_\_



## BONUS QUESTIONS

1. Why is the 3-Letter City Code for Orlando, FL **MCO**? \_\_\_\_\_

2. Why is the 3-Letter City Code for New Orleans, LA, **MSY**? \_\_\_\_\_

*Note: you may need to use the internet to find the answer.*