# OBSERVATION SHEET 1 $\rightarrow$

Use the chart below to record your data and observations.

# Telluride, CO

### Step 1

- 1. Go to http://world.time.com/timelapse2/ and enter Telluride, CO into the search box at the top left of the map.
- 2. Observe the changes that occur in the area from 1984-2018. Record them observations in Observation Sheet 1.
- **3.** Be sure to pay attention to the amount of snow coverage across the mountains east and south east of Telluride.
- 4. To save the time-lapse view, click the share button and copy the "Share Current View" link. Paste the link into your presentation.

	Environment #1
	Location: Telluride, CO
What changes did you observe from 1984 -2018?	
How did landforms change over time?	
Describe any changes in land use over time (i.e. from farm to city, or wilderness to farm, etc.).	
Describe any significant change in rivers, streams, lakes, seas, etc.	

historical weather and climate data for your location.

3. Use your graphs to answer the questions on the next page. Be sure to describe any patterns that you observe and cite your



- 1. Create temperature and precipitation graphs using the data set for Telluride, CO.
- 2. Use the available temperature, precipitation and drought rating data to make some observations and inferences from the

### evidence.

	Environment #1 Summary
How has the average annual temperature changed over time?	
How has the average annual precipitation changed over time?	
How has the drought rating changed over time?	
Did you find any correlations between drought rating and temperature? Please explain.	
Did you find any correlations between drought rating and precipitation? Please explain.	
Based on the changes you observed what are your predictions for how this environment will change over the next 30 years?	
Provide support for your predictions.	

### Step 3

- 1. Go to http://www.eomf.ou.edu/photos/map/. On the left side there is a box that says "Search By"
- **2.** Click on the "Region" option.
- 3. Type -108 in the "Min-Lon" box and -107.5 in the "Max-Lon" box. Type 38 in the "Min-Lat" box and 38.5 in the "Max-Lat" box.

How has climate affected these two environments?



# OBSERVATION SHEET 1 ightarrow

Use the chart below to record your data and observations.

- 4. Press enter or click the blue "Submit" button.
- 5. The map should now show at least one orange dot. Zoom in and click on the dot near Ouray. Below the map you will see all the pictures taken at that location.
- 6. Pick one of the photographs and save the picture to use in your presentation.

#### Step 4

- **1.** Complete Observation Sheet 2.
- 2. Use all the information you've recorded so far to fill out the following chart.

	Environment Comparison
Compare how the changes you observed in Environment #2 are similar to the changes observed in your original location.	
Compare how the changes you observed in Environment #2 are different from the changes observed in your original location.	

# Las Vegas, NV

#### Step 1

- 1. Go to http://world.time.com/timelapse2/ and enter Las Vegas, NV into the search box at the top left of the map.
- 2. Observe the changes that occur in the area from 1984-2018. Record the appropriate observations in Observation Sheet 1.
- 3. Be sure to take notice of the city expansion as well as the fluctuation in Lake Mead.
- 4. To save the time-lapse view, click the share button and copy the "Share Current View" link. Paste the link into your presentation.

#### Environment #1

Location: Las Vegas, NV

historical weather and climate data for your location.

3. Use your graphs to answer the questions on the next page. Be sure to describe any patterns that you observe and cite your



What changes did you observe from 1984 -2018?	
How did landforms change over time?	
Describe any changes in land use over time (i.e. from farm to city, or wilderness to farm, etc.).	
Describe any significant change in rivers, streams, lakes, seas, etc.	
What do you think are some of the possible causes for any of the changes you observed?	

- **1.** Create temperature and precipitation graphs using the data set for Las Vegas, NV.
- 2. Use the available temperature, precipitation and drought rating data to make some observations and inferences from the

evidence.

How has climate affected these two environments?



	Environment #1 Summary
How has the average annual temperature changed over time?	
How has the average annual precipitation changed over time?	
How has the drought rating changed over time?	
Did you find any correlations between drought rating and temperature? Please explain.	
Did you find any correlations between drought rating and precipitation? Please explain.	
Based on the changes you observed what are your predictions for how this environment will change over the next 30 years?	
Provide support for your predictions.	

- 1. Go to http://www.eomf.ou.edu/photos/map/. On the left side there is a box that says "Search By"
- 2. In this box, click on the "Region" option.
- 3. Type -115 in the "Min-Lon" box and -114 in the "Max-Lon" box. Type 36 in the "Min-Lat" box and 36 in the "Max-Lat" box.
- **4.** Press enter or click the blue "Submit" button.
- 5. The map should now show at least one orange dot. Zoom in and click on one of the dots. Below the map you will see all the pictures taken at that location.
- 6. Pick one of the photographs and save the picture to use in your presentation.

### Step 4

- **1.** Complete observation Sheet 2.
- 2. Use all the information you've recorded so far to fill out the following chart.

Environment Comparison

How has climate affected these two environments?



	Environment #1 Summary
How has the average annual temperature changed over time?	
How has the average annual precipitation changed over time?	
How has the drought rating changed over time?	
Compare how the changes you observed in Environment #2 are similar to the changes observed in your original location.	
Compare how the changes you observed in Environment #2 are different from the changes observed in your original location.	

# Lake Powell, AZ

Go to http://world.time.com/timelapse2/ and enter Grenada, MS into the search box at the top left of the map.

Zoom out or move your map far to view both parts of the lake and the river.

- 3. Observe the changes that occur in the area from 1984-2018. Record the appropriate observations in Observation Sheet 1.
- 4. To save the time-lapse view, click the share button and copy the "Share Current View" link. Paste the link into your presentation.

	Environment #1
	Location: Lake Powell, AZ
What changes did you observe from 1984 -2018?	

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# OBSERVATION SHEET 1 $\rightarrow$

Use the chart below to record your data and observations.

### STEP 1

# 1.

2.	
How did landforms change over time?	
Describe any changes in land use over time (i.e. from farm to city, or wilderness to farm, etc.).	
Describe any significant change in rivers, streams, lakes, seas, etc.	
What do you think are some of the possible causes for any of the changes you observed?	

#### Step 2

- 1. Create temperature and precipitation graphs using the data set for Lake Powell, AZ.
- 2. Use the available temperature, precipitation and drought rating data to make some observations and inferences from the

#### evidence.

Did you find any correlations
between drought rating and
temperature? Please explain.

historical weather and climate data for your location.

3. Use your graphs to answer the questions on the next page. Be sure to describe any patterns that you observe and cite your



Did you find any correlations	
between drought rating and	
precipitation? Please explain.	
Based on the changes you observed what are your predictions for how this environment will change over the next 30 years?	
Provide support for your predictions.	

- 1. Go to http://www.eomf.ou.edu/photos/map/. On the left side there is a box that says "Search By"
- 2. In this box, click on the "Region" option.
- 3. Type -111.5 in the "Min-Lon" box and -111 in the "Max-Lon" box. Type 36.5 in the "Min-Lat" box and 37 in the "Max-Lat" box.
- **4.** Press enter or click the blue "Submit" button.
- 5. The map should now show at least one orange dot. Zoom in and click on one of the dots. Below the map you will see all the pictures taken at that location.
- 6. Pick one of the photographs and save the picture to use in your presentation.

#### Step 4

- **1.** Complete Observation Sheet 2.
- 2. Use all the information you've recorded so far to fill out the following chart.

Environment Comparison	
Compare how the changes you observed in Environment #2 are similar to the changes observed in your original location.	

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# OBSERVATION SHEET 1 ightarrow

Use the chart below to record your data and observations.

### STEP 1

# 1.

2.

Compare how the changes you observed in Environment #2 are different from the changes observed in your original location.

historical weather and climate data for your location.

3. Use your graphs to answer the questions on the next page. Be sure to describe any patterns that you observe and cite your



Environment #1 Summary		
How has the average annual temperature changed over time?		
How has the average annual precipitation changed over time?		
How has the drought rating changed over time?		

# Salt Lake City, UT

Go to http://world.time.com/timelapse2/ and enter Salt Lake City, UT into the search box at the top left of the map. Drag the map so that you are looking at the Great Salt Lake to the NE of Salt Lake City.

- 3. Observe the changes that occur in the area from 1984-2018. Record the appropriate observations in Observation Sheet 1.
- 4. Be sure to take notice of the fluctuation in the lake as well as any changes in the vegetation coverage.
- 5. To save the time-lapse view, click the share button and copy the "Share Current View" link. Paste the link into your presentation.

Environment #1		
Location: Salt Lake City, UT		
What changes did you observe from 1984 -2018?		
How did landforms change over time?		
Describe any changes in land use over time (i.e. from farm to city, or wilderness to farm, etc.).		

|--|--|--|--|--|



#### Name:\_\_

# OBSERVATION SHEET 1 ightarrow

Use the chart below to record your data and observations.

#### STEP 1

# 1.

2.	
Describe any significant change in rivers, streams, lakes, seas, etc.	
What do you think are some of the possible causes for any of the changes you observed?	

# Step 2

- 1. Create temperature and precipitation graphs using the data set for Salt Lake City, UT.
- 2. Use the available temperature, precipitation and drought rating data to make some observations and inferences from the historical weather and climate data for your location.
- 3. Use your graphs to answer the questions on the next page. Be sure to describe any patterns that you observe and cite your evidence.

Did you find any correlations between drought rating and temperature? Please explain.
Did you find any correlations between drought rating and precipitation? Please explain.
Based on the changes you observed what are your predictions for how this environment will change over the next 30 years?
Provide support for your predictions.

#### Step 3

- 1. Go to http://www.eomf.ou.edu/photos/map/. On the left side there is a box that says "Search By"
- 2. In this box, click on the "Region" option.
- 3. Type -113 in the "Min-Lon" box and -111.5 in the "Max-Lon" box. Type 40.5 in the "Min-Lat" box and 41 in the "Max-Lat" box.
- **4.** Press enter or click the blue "Submit" button.
- 5. The map should now show at least one orange dot. Zoom in and click on one of the dots. Below the map you will see all the pictures taken at that location.



	Environment #1 Summary
How has the average annual temperature changed over time?	
How has the average annual precipitation changed over time?	
How has the drought rating changed over time?	

6. Pick one of the photographs and save the picture to use in your presentation.

# Step 4

- **1.** Complete Observation Sheet 2.
- 2. Use all the information you've recorded so far to fill out the following chart.

Environment Comparison		
Compare how the changes you observed in Environment #2 are similar to the changes observed in your original location.		
Compare how the changes you observed in Environment #2 are different from the changes observed in your original location.		

# Columbia Glacier, AK

Go to http://world.time.com/timelapse2/ and enter Columbia Glacier, AK into the "explore your world search box.

Observe the changes that occur in the area from 1984-2018. Record the appropriate observations in Observation Sheet 1.

- **3.** Be sure to take notice of the amount of snow coverage as well as the glacier flow and the fluctuation in the size of the glacier in the bay.
- 4. To save the time-lapse view, click the share button and copy the "Share Current View" link. Paste the link into your presentation.

	Environment #1
	Location: Columbia Glacier, AK
How has climate affected these two environments?	



#### Name:\_

# OBSERVATION SHEET 1 $\rightarrow$

Use the chart below to record your data and observations.

### STEP 1

# 1.

2.	
What changes did you observe from 1984 -2018?	
How did landforms change over time?	
Describe any changes in land use over time (i.e. from farm to city, or wilderness to farm, etc.).	
Describe any significant change in rivers, streams, lakes, seas, etc.	
What do you think are some of the possible causes for any of the changes you observed?	

### Step 2

- **1.** Create temperature and precipitation graphs using the data set for Columbia Glacier, AK.
- 2. Use the available temperature, precipitation and drought rating data to make some observations and inferences from the historical weather and climate data for your location.
- **3.** Use your graphs to answer the questions on the next page. Be sure to describe any patterns that you observe and cite your evidence.



Environment #1 Summary	
How has the average annual temperature changed over time?	
How has the average annual precipitation changed over time?	
How has the drought rating changed over time?	

Did you find any correlations between drought rating and temperature? Please explain.
Did you find any correlations between drought rating and precipitation? Please explain.
Based on the changes you observed what are your predictions for how this environment will change over the next 30 years?
Provide support for your predictions.

- 1. Go to http://www.eomf.ou.edu/photos/map/. On the left side there is a box that says "Search By.
- 2. In this box, click on the "Region" option.
- 3. Type -108 in the "Min-Lon" box and -107.5 in the "Max-Lon" box. Type 38 in the "Min-Lat" box and 38.5 in the "Max-Lat" box.
- **4.** Press enter or click the blue "Submit" button.
- 5. The map should now show at least one orange dot. Zoom in and click on one of the dots. Below the map you will see all the pictures taken at that location.
- 6. Pick one of the photographs and save the picture to use in your presentation.

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- 2. Use all the information you've recorded so far to fill out the following chart.

Environment Comparison		
Compare how the changes you observed in Environment #2 are similar to the changes observed in your original location.		
Compare how the changes you observed in Environment #2 are different from the changes observed in your original location.		



Environment #1 Summary	
How has the average annual temperature changed over time?	
How has the average annual precipitation changed over time?	
How has the drought rating changed over time?	
How has climate affected these two environments?	

