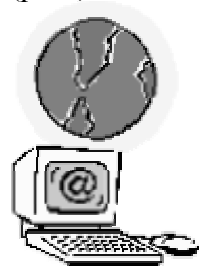


Name \_\_\_\_\_



## Long Term Data Collection Measuring Day Length Around the World

**Problem:** To compare and analyze data collected over a 6 month period of time and analyze it to determine patterns and relationships in the length of days at different latitudes.

### Part 1 – Collecting the Data (September – March):

#### **General Information:**

Each class period will be responsible for collecting day length for one state or country. The data will be gathered from the U.S. Naval Observatory website and entered into an Access database.

We will collect the data on the 21<sup>st</sup> day of each month. If we are not in school on the 21<sup>st</sup> day of the month, we collect the data on the day closest to the 21<sup>st</sup>.

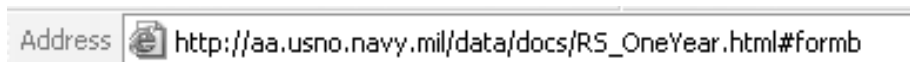
The data will be collected on these cities/countries:

- Ecuador – Latitude 0° (*First period will collect this data*)
- Antarctica – Latitude 70° S (*Third period will collect this data*)
- New Zealand – Latitude 38° S (*Fourth period will collect this data*)
- Colorado – Latitude 38° N (*Sixth period will collect this data*)
- Alaska – 70° N (*Eighth period will collect this data*)

#### **Procedure:**

#### **Collect the Data From the U.S. Naval Observatory –**

1. The website will be saved for you in **Favorites**:  
[http://aa.usno.navy.mil/data/docs/RS\\_OneYear.html#formb](http://aa.usno.navy.mil/data/docs/RS_OneYear.html#formb)



2. You will find this form:

**Form B - Locations Worldwide**  
**Specify year, type of table, and place:**

Year:  Type of table:

Place Name:

The place name you enter above is used only in the table header; you can enter any identifier, or none (do not use punctuation characters).

Longitude:  east  west  degrees  minutes

Latitude:  north  south  degrees

Time Zone:  hours  east of Greenwich  west of Greenwich

For locations that require it, the time zone can be entered in hours and a fraction. For example, for locations in

Make sure this is sunrise/sunset

Type in your country or state here.

Enter the latitude of your state/country. Remember to check north or south

3. Click .

4. Find the data needed:

Double check the latitude.

Location:  Rise and Set for the Sun for 2003

Universal Time

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Ris
	Rise Set	Rise Set	Rise Set	Rise Set	Rise Set	Rise Set	Rise Set	Rise Set	h :
	h m h m	h m h m	h m h m	h m h m	h m h m	h m h m	h m h m	h m h m	h :
01	0600 1800	0610 1817	0609 1816	0601 1807	0554 1801	0554 1801	0600 1807	0603 1800	055
02	0600 1800	0610 1817	0609 1816	0600 1800	0554 1800	0554 1802	0600 1808	0603 1800	055
03	0601 1800	0610 1817	0609 1816	0600 1800	0554 1800	0554 1802	0601 1808	0603 1800	055

1. Find the month

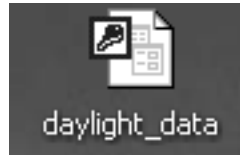
2. Find the date

3. Record sunrise time in the database

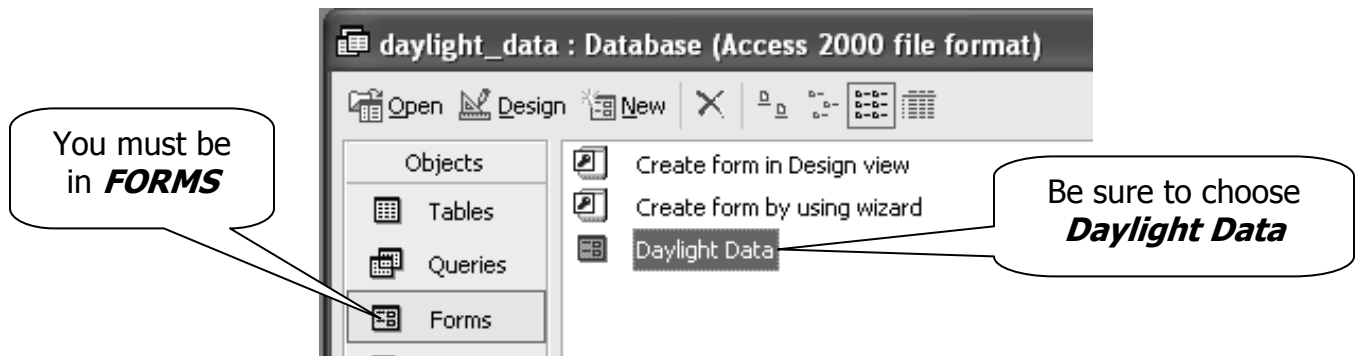
3. Record sunset time in the database

## Recording the Data in the Access Database –

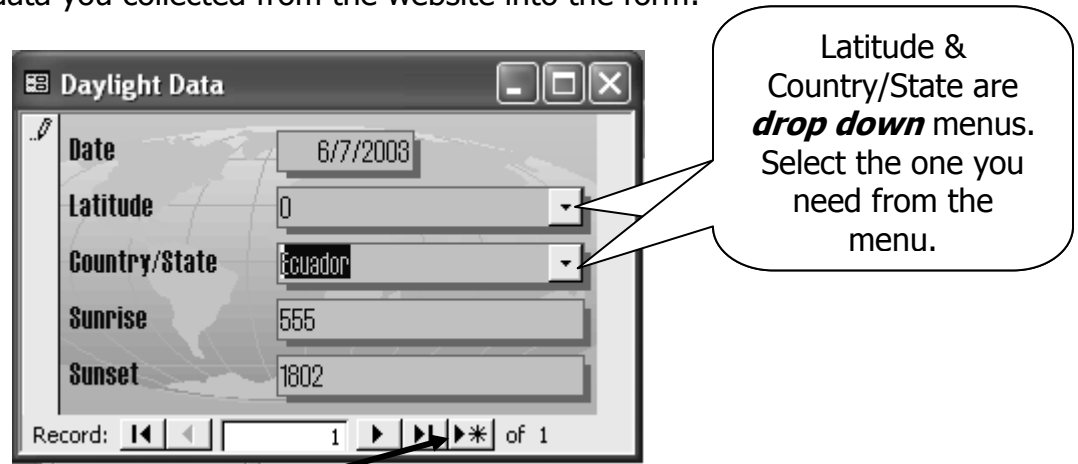
1. Open the database



2. Open the **FORM**:



3. Enter the data you collected from the website into the form:



4. Click  to save your data.

5. The form is now ready for the next person to enter data:

The image shows a software window titled "Daylight Data". The window has a standard Windows-style title bar with minimize, maximize, and close buttons. The main content area features a light gray background with a faint world map. On the left side, there is a vertical list of labels: "Date", "Latitude", "Country/State", "Sunrise", and "Sunset". To the right of each label is a corresponding input field: a text box for "Date", a dropdown menu for "Latitude", a dropdown menu for "Country/State", and two text boxes for "Sunrise" and "Sunset". At the bottom of the window, there is a record navigation bar. It starts with the text "Record:", followed by a set of navigation icons (back, forward, home, end, refresh), a small text box containing the number "2", and the text "of 2".