

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

# Astro Data for my home

1) What is your address? Street \_\_\_\_\_

State \_\_\_\_\_ zip \_\_\_\_\_

2) [Click here](#) to install Google Earth on this computer. If the link does not work, open "My Computer" Go to the "Courses" folder. Open "Nap" and install Google Earth.exe

3) Open Google Earth. On the toolbar, click on "tools" and "options"

4) Click on the "view" tab and change Lat/Long to "Degrees" (not Degrees, Minutes, Seconds). Click "OK"

5) Click on "Fly To" and enter your full address with zip code.

6) Check out the overhead satellite image of your house. Zoom in.

Is it accurate?     Yes     No

7) Print the satellite image of your house. **Circle your house.**

8) Underneath the satellite image of your house is the exact longitude and latitude of your house. It should be in decimals. If it's not, repeat step 3. Be sure the cursor is over your house. What is the latitude and longitude of your house (including decimals)?

**Latitude** \_\_\_\_\_ **Longitude** \_\_\_\_\_

9) Now go to <http://www.heavens-above.com/>  
Scroll down to the bottom of the page and click on "**Enter** your coordinates manually."

10)        Enter the latitude/longitude of your house.  
**Your longitude is West so enter it as a negative number!!!**  
Leave elevation at zero and Location name as "unspecified."  
Enter time zone as "GMT-5 USA Eastern"

- 11) Click on the 10 day prediction for ISS (The International Space Station). The best chance of seeing the ISS is when its altitude is above  $20^{\circ}$ . List the next date and data when the ISS will be above  $20^{\circ}$  over your house.

Date \_\_\_\_\_

Start time visible \_\_\_\_\_ Time of Maximum altitude \_\_\_\_\_

Maximum altitude in degrees \_\_\_\_\_ Direction to look (az) \_\_\_\_\_

Will you look for the ISS in the sky? \_\_\_\_\_

- 12) Go back one page on the web and click on "solar system chart." Which planets (if any) will be visible tonight?

\_\_\_\_\_

- 13) Go back again and click on "sun data for today." What time did the sun rise today? \_\_\_\_\_ What time does it set? \_\_\_\_\_

What time is sunset in non-military time? (subtract 12 hours) \_\_\_\_\_

- 14) It is not completely dark out until astronomical twilight ends. What time does that occur today? \_\_\_\_\_

- 15) What is the maximum altitude of the sun today? \_\_\_\_\_ What time does that occur? \_\_\_\_\_

If it is above  $45^{\circ}$ , you should wear sunscreen. Do you need sunscreen today?

\_\_\_\_\_

- 16) What constellation is the sun in? \_\_\_\_\_

- 17) Is that your zodiac sign? \_\_\_\_\_

- 18) On the top of this page you will see the dates/times of seasons for your house.

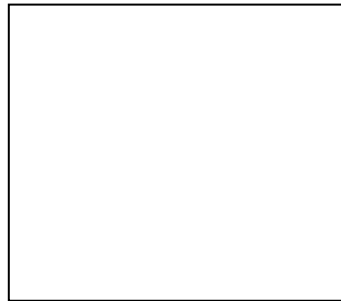
What season are we in? \_\_\_\_\_

What season comes next? \_\_\_\_\_

What date/time does it begin? \_\_\_\_\_

Isn't this site awesome? \_\_\_\_\_

- 19) Go back and click on "moon data for today" Draw today's moon phase in the box.



20) What percentage of the moon is illuminated today? \_\_\_\_\_

21) What constellation is the moon in? \_\_\_\_\_

22) What time does the moon rise today? \_\_\_\_\_

23) What time does it set? \_\_\_\_\_

24) What is the maximum altitude of the moon today? \_\_\_\_\_

25) Which phase comes next, new or full? \_\_\_\_\_ On what date and time?

\_\_\_\_\_