http://schools.spsd.sk.ca/brightwater/

# Using the <br> Magellan 315 <br> Global Positioning Satellite Receiver (G.P.S.) 

A workshop for teachers at the Brightwater Science and Environmental Centre

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Saskatoon Board of Education

## G.P.S. - Introductory Activity for Students

Using the Magellan GPS 315 Global Positioning Satellite Receiver

## Instructions:

1. Press PWR (power on) button.
2. When the Magellan screen comes on, press ENTER within 10 seconds or the unit will shut off.
3. The STATUS screen will come on showing the location of the satellites in the sky above you. If the battery indicator shows $50 \%$ or less, you may have trouble completing the exercise. Replace batteries with two fresh "Alkaline" batteries. (Rechargeable do not last long in this GPS receiver.)
4. Review the page "Using the Status Screen" if necessary.
5. Wait until the POSITION screen is displayed automatically. If you are outdoors with an unobstructed view of the sky this will happen quickest.
6. Review the page "Using the Position Screen" if necessary.
7. Go to the starting point of your walk. Identify this as Indent. \#l on your Brightwater G.P.S. Data page. Describe and record the location (ex. 'Somer's Hall') on your page, along with the Latitude (N) (top line), Longitude (W) (second line) and the Elevation (feet) (third line). Record the time (fourth line) along with any other significant information, in the "Notes" section of your data sheet.
8. Place"\#1" clearly on your "Brightwater G.P.S. Locations drawing.
9. Leaving the G.P.S on, go for your walk, recording locations as above until you have about 12 locations. (Ideally, if your walk can take you in a circuit that ends where it started, your data will be most useful.)
10. Establish a range of latitude values for the vertical axis of your "grid map". (ex. 5158.18 to 51.58 .60 increasing by .02 as you travel up the axis.) All of your latitude data should be within this range.
11. Establish a range of longitude values for the horizontal axis of your "grid map". (ex. 10641.86 to 10642.22 increasing by .02 as you travel left on the axis.) All of your longitude data should be within this range.
12. Plot each of your locations on the grid map. If a location's coordinates are suspected as being incorrect, identify them as "Suspect" in the "Notes" section of the data page and do not plot that location.
13. Your total package will be submitted for evaluation after camp.
14. Have fun! Be accurate!

## Brightwater Walk - Data

| Ident.\# | Description | Latitude | Longitude | Elevation | Notes |
| ---: | :--- | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |
| 3 | Somer's Hall | 5158.46 | 10642.04 | 1612 |  |
| 4 | Creek near campfire | 5158.42 | 10642.08 | 1619 |  |
| 5 | Fresh beaver cutting | 5158.40 | 10642.09 | 1698 |  |
| 6 | Sanddune @ stair top | 5158.36 | 10642.09 | 1615 |  |
| 7 | Beaver dam | 5142.05 | 10642.05 | 1601 | .3 mile distance |
| 8 | Soil horizons | 5158.02 | 10642.02 | 1619 |  |
| 9 | Spring | 5158.31 | 10692.00 | 1625 |  |
| 10 | Eroding step site | 5158.31 | 10641.96 | 1602 |  |
| 11 | Stone chimney | 5158.30 | 10641.94 | 1619 |  |
| 12 | Plants \& beaver graze | 5150.88 | 10641.88 | 1626 |  |
| 13 | Obstacle course | 5158.28 | 10641.89 | 1618 |  |
| 14 | Trail fork | 5158.26 | 10641.93 | 1634 |  |
| 15 | Trail plants | 5158.27 | 10642.02 | 1645 |  |
| 16 | Dune site | 5158.28 | 10642.06 | 1641 |  |
| 17 | Swimming pool | 5148.40 | 10642.16 | 1628 |  |
| 18 | Somer's Hall | 5158.45 | 10642.06 | 1608 | .8 mile distance |

## Other Brightwater Data:

| Ident.\# | Description | Latitude | Longitude | Elevation | Notes |
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Brightwater Walk

$51^{\circ} 58.18$

## Brightwater G.P.S. - Data:

| Ident.: | Descripion | Latitude | Longitude | Elevation | Notes |
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Brightwater Walk
Name

$51^{\circ} 58.18$

