STARFLEET SCIENCE LOG

USS SOLSTICE

Mini Report for

Sky Observation

Due Date: _____, 20___

TERM: Fall Spring Summer

Name:_____

Location:

Sky Observation Report from USS SOLSTICE

Index

PAGE 1: **Star gazing** **Observe a DIFFERENT object using any PRIVATE telescope**
PAGE 2: **Star gazing** **Observe a DIFFERENT object using any PRIVATE telescope**
PAGE 3: *Worksheet:* *Locate the BIG DIPPER and what is an Asterism and constellation?*
PAGE 4: *Worksheet:* *Locate Polaris*
PAGE 5: **Star gazing** **Observe a DIFFERENT object using any PRIVATE telescope**
PAGE 6: *Worksheet:* *Locate BOOTES and Virgo using the BIG DIPPER*
PAGE 7: **Star gazing** **Observe a DIFFERENT object using any PRIVATE telescope**
PAGE 8: *Worksheet:* *Locate LEO using the BIG DIPPER*
PAGE 9: *Worksheet:* *Locate the circumpolar constellations*
PAGE 10: **Star gazing** **Observe a DIFFERENT object using any PRIVATE telescope**
PAGE 11: **Star gazing** **Observe a DIFFERENT object using any PRIVATE telescope**
PAGE 12: *Worksheet:* *Locate the zodiac constellations that are visible*
PAGE 13: *Worksheet:* *Locate this seasons constellation and write a story*
PAGE 14: **Star gazing** **Observe a DIFFERENT object using any PRIVATE telescope.**

NOTES:

Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# _PAGE 1__

Directions:

1. COMPLETE this entire page for credit. It is your responsibility to turn it into the teacher
2. **Your sketch should SHOW DETAIL**

OBJECT that you are viewing is:
Location: Mingo Creek Observatory **Date :** **Time: _____am/pm** **Viewing condition:**
Telescope Used to view object with: *Private scopes:* **Refractor Reflector** **Dobsonian Cassegrain Other**
Eye Piece size if known: mm

In the Circle below, sketch the object viewed in that eyepiece. The Circle represents the eyepiece.

In the space below, write any additional information about THAT object that you viewed. This may include time rise, set, distance in light-years, luminosity (magnitude), etc…

Sky Observation Report from USS SOLSTICE

Name _____ **Observation Number#** **PAGE 2**

Directions:

1. COMPLETE this entire page for credit. It is your responsibility to turn it into the teacher
2. **Your sketch should SHOW DETAIL**

OBJECT that you are viewing is:
Location: Mingo Creek Observatory **Date :** **Time: _____am/pm** **Viewing condition:**
Telescope Used to view object with: *Private scopes:* **Refractor Reflector** **Dobsonian Cassegrain Other**
Eye Piece size if known: mm

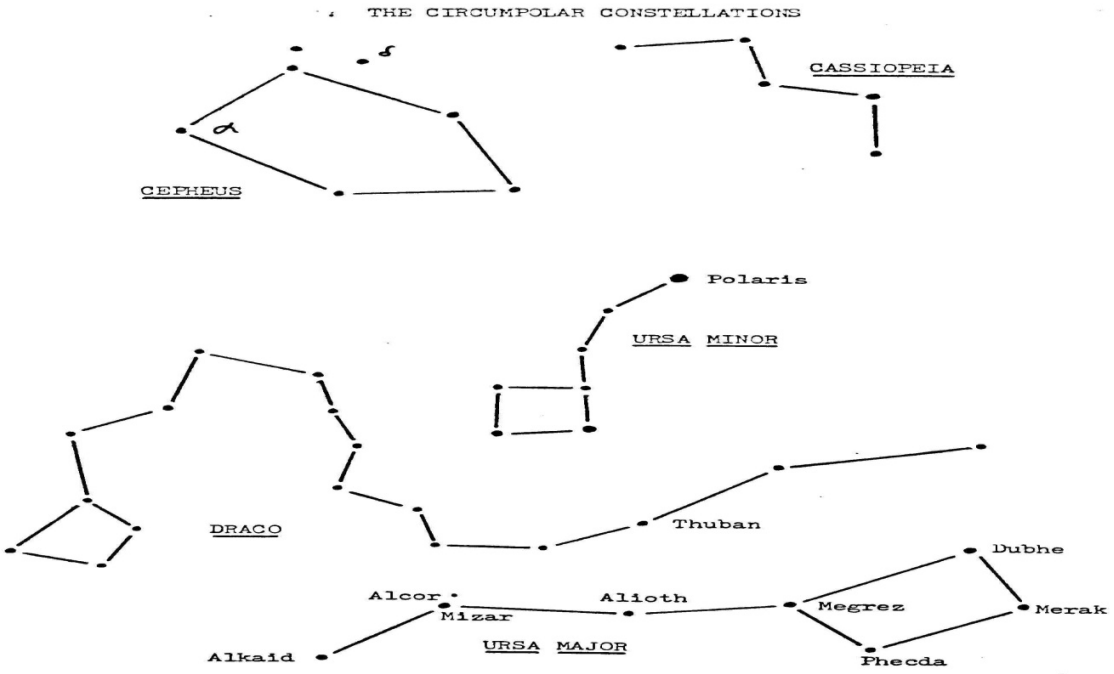
In the Circle below, sketch the object viewed in that eyepiece. The Circle represents the eyepiece.

In the space below, write any additional information about THAT object that you viewed. This may include time rise, set, distance in light-years, luminosity (magnitude), etc…

Sky Observation Report from USS SOLSTICE

Name _____ **Observation Number#** __**PAGE 3**__ __

Directions:



1. **A group of stars that make up an imaginary pattern of mythical creatures or great hero's is called?**

2. **The Big Dipper is not a constellation. It is an asterism! Big Dipper is a part of which constellation?**
   a. **Draco** d. **Cassiopeia** g. **Virgo**
   b. **Ursa Major** e. **Cephus** h. **Boötes**
   c. **Ursa Minor** f. **Leo** i. **Orion**

3. **Define an ASTERISM and include an example other than the Big Dipper and URSA MAJOR?**

Go outside and locate the BIG DIPPER:

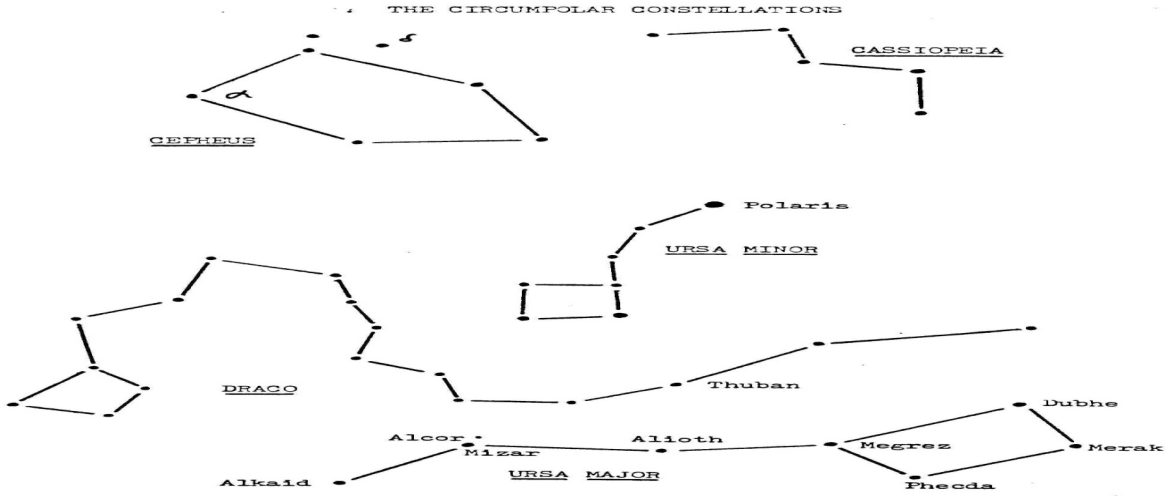
4. **Did you locate the BIG DIPPER without help? YES NO**

Whoever witnesses this please sign off on this sheet:

Sky Observation Report from USS SOLSTICE

Name _____ **Observation Number#** __**PAGE 4**__ __

Directions:



CIRCLE your answer for the next 3 questions

1. **What is the name of the North Star?**
   - a. **Arcturus**
   - b. **Betelgeuse**
   - c. **Dubhe**
   - d. **Merak**
   - e. **Polaris**
   - f. **Regulus**
   - g. **Spica**
   - h. **Thuban**
   - i. **Vega**

2. **What is the name of the NEW North Star in about 13,000 years from now?**
   - a. **Arcturus**
   - b. **Betelgeuse**
   - c. **Dubhe**
   - d. **Merak**
   - e. **Polaris**
   - f. **Regulus**
   - g. **Spica**
   - h. **Thuban**
   - i. **Vega**

3. **What was the name of the former (OLD) North Star?**
   - a. **Arcturus**
   - b. **Betelgeuse**
   - c. **Dubhe**
   - d. **Merak**
   - e. **Polaris**
   - f. **Regulus**
   - g. **Spica**
   - h. **Thuban**
   - i. **Vega**

4. **Write a brief detailed description of how do you find the North Star using the big dipper?**

Sky Observation Report from USS SOLSTICE

Name _____ **Observation Number#** **PAGE 5**

Directions:

1. COMPLETE this entire page for credit. It is your responsibility to turn it into the teacher
2. **Your sketch should SHOW DETAIL**

OBJECT that you are viewing is:
Location: Mingo Creek Observatory **Date :** **Time: _____am/pm** **Viewing condition:**
Telescope Used to view object with: *Private scopes:* **Refractor Reflector** **Dobsonian Cassegrain Other**
Eye Piece size if known: mm

In the Circle below, sketch the object viewed in that eyepiece. The Circle represents the eyepiece.

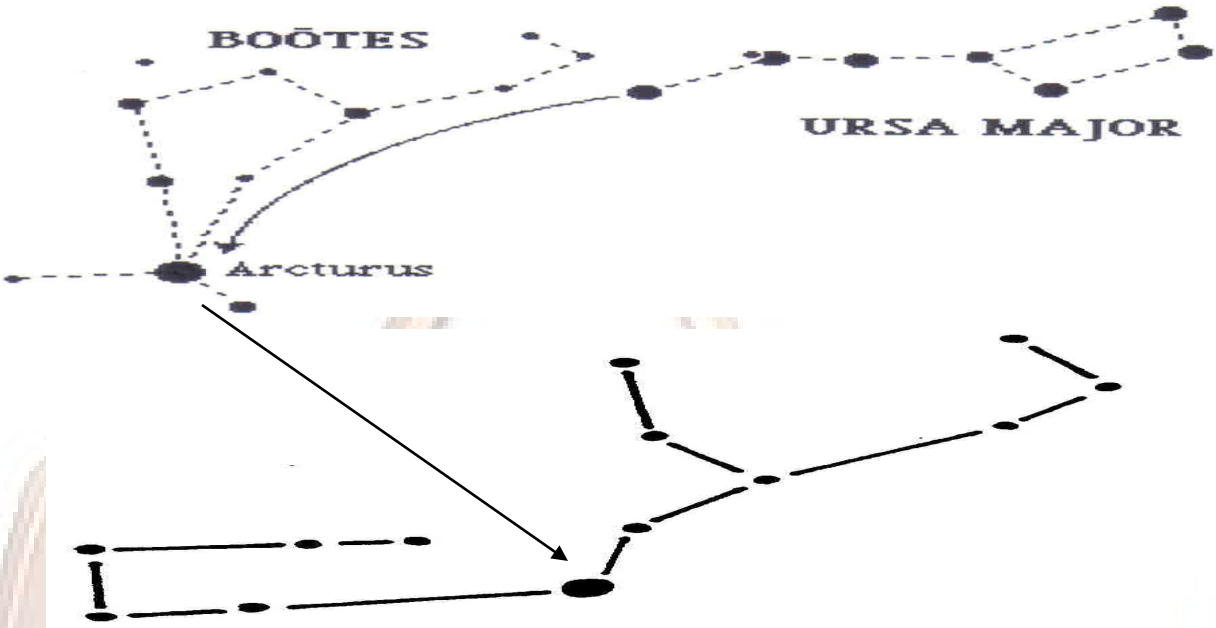
In the space below, write any additional information about THAT object that you viewed. This may include time rise, set, distance in light-years, luminosity (magnitude), etc…

Sky Observation Report from USS SOLSTICE

Name _____ **Observation Number#** __**PAGE 6**__ __

Directions:

THIS SHEET must HAVE a signature to indicate that you have completed this.



1. **What is the name of the Star you found in Boötes using the Big Dipper?**
   - **a. Arcturus**
   - **b. Betelgeuse**
   - **c. Dubhe**
   - **d. Merak**
   - **e. Polaris**
   - **f. Regulus**
   - **g. Spica**
   - **h. Thuban**
   - **i. Vega**

2. **What is the name of the star you found in Virgo using the Big Dipper?**
   - **a. Arcturus**
   - **b. Betelgeuse**
   - **c. Dubhe**
   - **d. Merak**
   - **e. Polaris**
   - **f. Regulus**
   - **g. Spica**
   - **h. Thuban**
   - **i. Vega**

3. **What is Boötes known as? For example, Ares is a Ram, Orion is the Hunter.**
   - **a. Maiden**
   - **b. Hunter**
   - **c. Herdsman**
   - **d. Lion**
   - **e. Ram**
   - **f. Dog**
   - **g. Bear**
   - **h. Dragon**
   - **i. Other**

4. **Virgo is one part of the 12 special constellations that we call _____?**
   - **a. Maidens**
   - **b. Birds**
   - **c. Bees**
   - **d. Zodiacs**
   - **e. Circumpolar**
   - **f. Asterism**

Sky Observation Report from USS SOLSTICE

Name _____ **Observation Number** _**PAGE 7**__

Directions:

1. COMPLETE this entire page for credit. It is your responsibility to turn it into the teacher
2. **Your sketch should SHOW DETAIL**

OBJECT that you are viewing is:
Location: Mingo Creek Observatory **Date :** **Time: _____am/pm** **Viewing condition:**
Telescope Used to view object with: *Private Scopes:* **Refractor Reflector** **Dobsonian Cassegrain Other**
Eye Piece size if known mm

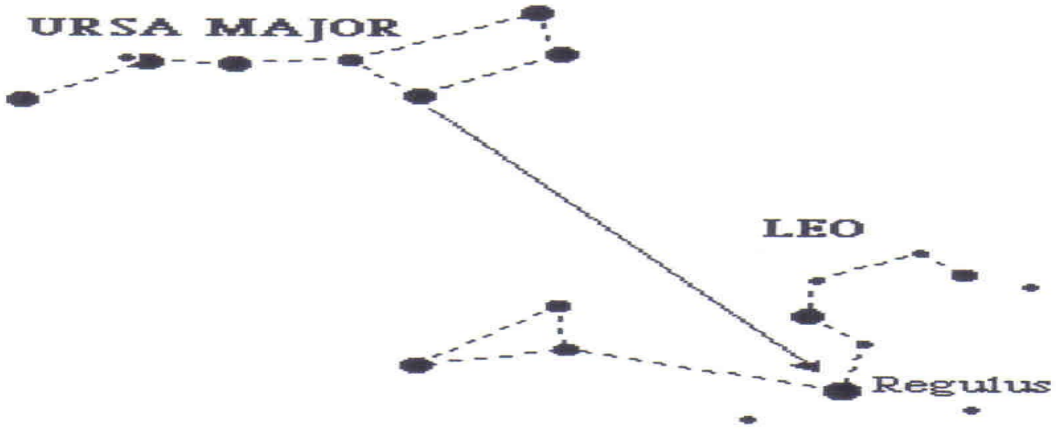
In the Circle below, sketch the object viewed in that eyepiece. The Circle represents the eyepiece.

In the space below, write any additional information about THAT object that you viewed. This may include time rise, set, distance in light-years, luminosity (magnitude), etc…

Sky Observation Report from USS SOLSTICE

Name _____ **Observation Number#** __**PAGE 8**__ __

THIS SHEET must HAVE a signature to indicate that you have completed this.



1. **What is the name of the Star you found in LEO using the Big Dipper?**
   a. **Arcturus** d. **Merak** g. **Spica**
   b. **Betelgeuse** e. **Polaris** h. **Thuban**
   c. **Dubhe** f. **Regulus** i. **Vega**

2. **What is Leo known as? For example, Ares is a Ram, Orion is the Hunter.**
   a. **Maiden** d. **Lion** g. **Bear**
   b. **Hunter** e. **Ram** h. **Dragon**
   c. **Herdsman** f. **Dog** i. **Other**

3. **Write a brief detailed description of how do you find Leo, using the big dipper?**

Go outside and locate other objects using the BIG DIPPER:

4. **Did you locate the constellation without help? YES NO**

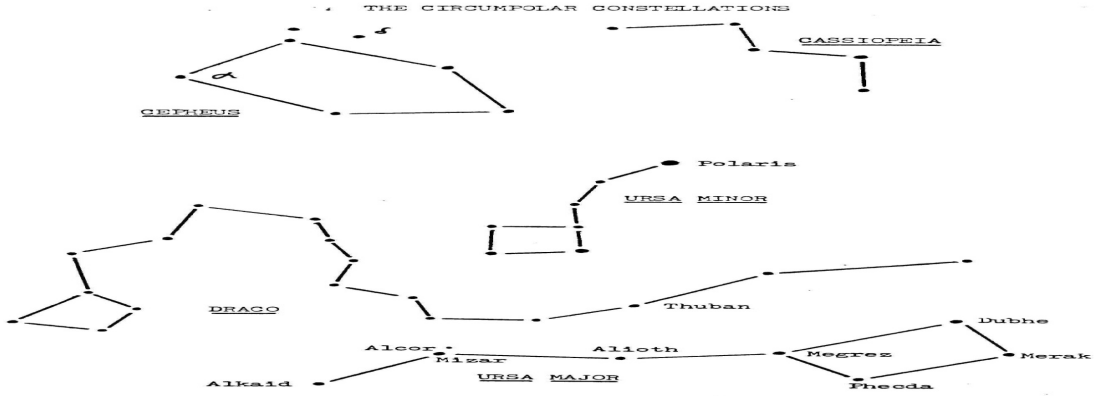
Whoever witnesses this please sign off on this sheet:

Sky Observation Report from USS SOLSTICE

Name _____ **Observation Number#** __PAGE 9__ __

Directions:

Show your instructor or a staff member how to locate other objects using the CIRCUMPOLAR CONSTELLATION:



1. **Depending on the time of year, which circumpolar constellation can be seen as a "W", "3", "M", or an "E"?**
   a. **Ursa Major** d. **Cassiopeia** g. **Virgo**
   b. **Ursa Minor** e. **Cephus** h. **Boötes**
   c. **Draco** f. **Leo** i. **Orion**
2. **Name the circumpolar constellation be seen as a house, but really is a king sitting on a throne?**
   a. **Ursa Major** d. **Cassiopeia** g. **Virgo**
   b. **Ursa Minor** e. **Cephus** h. **Boötes**
   c. **Draco** f. **Leo** i. **Orion**
3. **What is Draco known as? For example, Ares is a Ram, Orion is the Hunter.**
   a. **Maiden** d. **Lion** g. **Bear**
   b. **Hunter** e. **Ram** h. **Dragon**
   c. **Herdsman** f. **Dog** i. **Other**
4. **Write a brief detailed description of why the circumpolar constellations are so important to anyone who is north of the equator.**

Sky Observation Report from USS SOLSTICE

Name _____ **Observation Number#** **PAGE 10**

Directions:

1. COMPLETE this entire page for credit. It is your responsibility to turn it into the teacher
2. **Your sketch should SHOW DETAIL**

OBJECT that you are viewing is:
Location: Mingo Creek Observatory **Date :** **Time: _____am/pm** **Viewing condition:**
Telescope Used to view object with: *Private scopes:* **Refractor Reflector** **Dobsonian Cassegrain Other**
Eye Piece size if known: mm

In the Circle below, sketch the object viewed in that eyepiece. The Circle represents the eyepiece.

In the space below, write any additional information about THAT object that you viewed. This may include time rise, set, distance in light-years, luminosity (magnitude), etc…

Sky Observation Report from USS SOLSTICE

Name _____ **Observation Number#** **PAGE 11**

Directions:

1. COMPLETE this entire page for credit. It is your responsibility to turn it into the teacher
2. **Your sketch should SHOW DETAIL**

OBJECT that you are viewing is:
Location: Mingo Creek Observatory **Date :** **Time: _____am/pm** **Viewing condition:**
Telescope Used to view object with: *Private scopes:* **Refractor Reflector** **Dobsonian Cassegrain Other**
Eye Piece size if known: mm

In the Circle below, sketch the object viewed in that eyepiece. The Circle represents the eyepiece.

In the space below, write any additional information about THAT object that you viewed. This may can include time rise, set, distance in light-years, luminosity (magnitude), etc…

Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# __PAGE 12__ __

Directions:

1. **Zodiac actually means?**
   a. **Circle of animals** b. **Circle of hero's** **c. Circle of clowns**

2. **Which of the OLD ZODIAC signs are you?**

a. Aries	**e. Lion**	**i. Sagittarius**
b. Taurus	**f. Virgo**	**j. Capricorn**
c. Gemini	**g. Libra**	**k. Aquarius**
d. Cancer	**h. Scorpio**	**l. Pisces**

3. **On January of 2012, the zodiac signs were changed from 12 to 13. Who did they add?**

a. **Hercules**	d. **Boötes**	g. **Ophiuchus**
b. **Cassiopeia**	e. **Orion**	h. **Lyra**
c. **Cephus**	f. **Cygnus**	i. **Aquila**

4. **Write a brief description as to why they added another zodiac constellation?**

Go outside and locate at least 3 ZODIAC constellations:

5. **DID you locate at least 3 zodiac constellations by themselves without any help?**
   YES NO

LIST THEM:

Whomever witness this please sign off on this sheet:

Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# __PAGE 13__ __

Directions:

1. **Which triangle SUMMER or WINTER, can you locate in the night sky tonight?**

   SUMMER WINTER

2. **What are the names of these constellations in the triangle that you had to use to located?**

Column A	*Column B*	*Column C*
a. Orion the hunter	**d. Boötes the herdsman**	**g. Cygnus the swan**
b. Canis Major	**e. Virgo the maiden**	**h. Aquila the eagle**
c. Canis Minor	**f. Hercules**	**i. Lyra the harp**

3. **Can you tell any MAJOR star(s) in this group?**

A. Betelgeuse	**D. Arcturus**	**G. Deneb**
B. Sirius	**E. Spica**	**H. Altair**
C. Procyon	**F. "keystones"**	**I. Vega**

4. **Each season usually has one or two constellation that is associated with it. List that seasons MAIN constellation in the space provided?**

   SPRING:

   SUMMER:

   FALL:

   WINTER:

Got outside and locate the "triangle" in the night shy

5. **Indicate which "triangle" you located?**

   a. WINTER b. SUMMER

Whomever witness this please sign off on this sheet:

Sky Observation Report from USS SOLSTICE

Name _____ **Observation Number#** **_PAGE 14__**

Directions:

1. COMPLETE this entire page for credit. It is your responsibility to turn it into the teacher
2. **Your sketch should SHOW DETAIL**

OBJECT that you are viewing is:
Location: Mingo Creek Observatory **Date :** **Time: _____am/pm** **Viewing condition:**
Telescope Used to view object with: **11" Schmidt Cassegrain** *Private scopes:* **Refractor Reflector** **Dobsonian Cassegrain Other**
Eye Piece size if known: mm

In the Circle below, sketch the object viewed in that eyepiece. The Circle represents the eyepiece.

In the space below, write any additional information about THAT object that you viewed. This may include time rise, set, distance in light-years, luminosity (magnitude), etc…