

Name: \_\_\_\_\_  
Broad Creek Middle School

Date: \_\_\_\_\_  
Science Period: \_\_\_\_\_

## Seasons Poster!

**Content and Language Objective:** You have been hired by Broad Creek Middle School to read and analyze documents, websites, and animations in order to create a poster for your science classroom that shows the true cause of the seasons in Newport, NC.

**\*Please Note\*** For this project you are going to assume that the people reading your poster have NO background knowledge about the seasons.

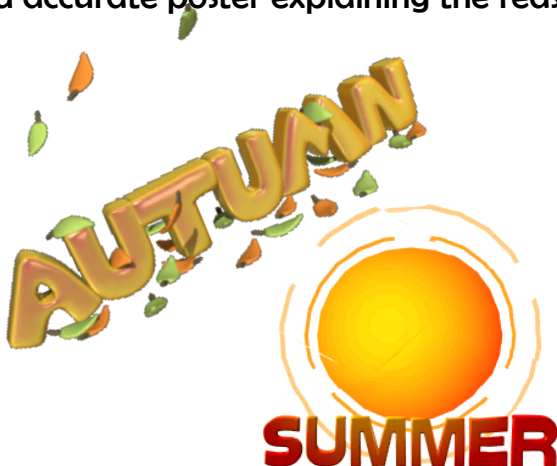
Therefore, your posters must go into detail and explain each of the four categories below:

- a. Misconceptions about the reasons for the seasons
- b. Tilt of the Earth
- c. Earth location and seasons
- d. How the angle of heat energy from the Sun hitting the Earth affects temperature during the seasons.

### ***The Poster Requirements are as follows:***

1. Posters will be drawn on the provided paper by the teacher. Feel free to bring your own poster paper in.
2. Diagrams and drawings **must** be used on your poster to help illustrate the concepts. All work & writing must be hand drawn/written. No printing from a computer of any kind is permitted.
3. Colored pencils and markers will be used for illustrations.
4. The explanations written on the poster will be written with a #2 pencil (no pen).
5. The poster will be neat and all information will be easy to read and interpret.

Use your time in the classroom to research the required information for your poster. Information is provided through handouts and website links. All handouts and website links can be found on our class page. When you have finished the following worksheet you must get your teachers approval to start creating your poster. Please take your time and produce a neat and accurate poster explaining the reasons for the seasons.



# Seasons Poster Worksheet

*This worksheet must be COMPLETED prior to starting your poster. You must get your teachers approval before you begin creating your poster.*

## **Misconceptions about the Reasons for the Seasons**

**There are 2 handouts that will help you with this section.**

**What are misconceptions? A misconception is an incorrect idea about something. Your task is to find some common misconceptions about the reasons for the seasons. Record them in the table below. You will be using this information for one section of your poster.**

1.
2.
3.
4.

**Using these misconceptions, designate one section of your poster to identifying common misconceptions.**



## Tilt of the Earth

There are 2 handouts that will help you with this section.

How does the Earth's tilt affect the seasons? Research the websites above. Write your information below. In the each box, draw a picture showing how the tilt of the Earth affects the seasons. Be sure to include in your picture the Earth's tilt in relation to the Sun at each season.

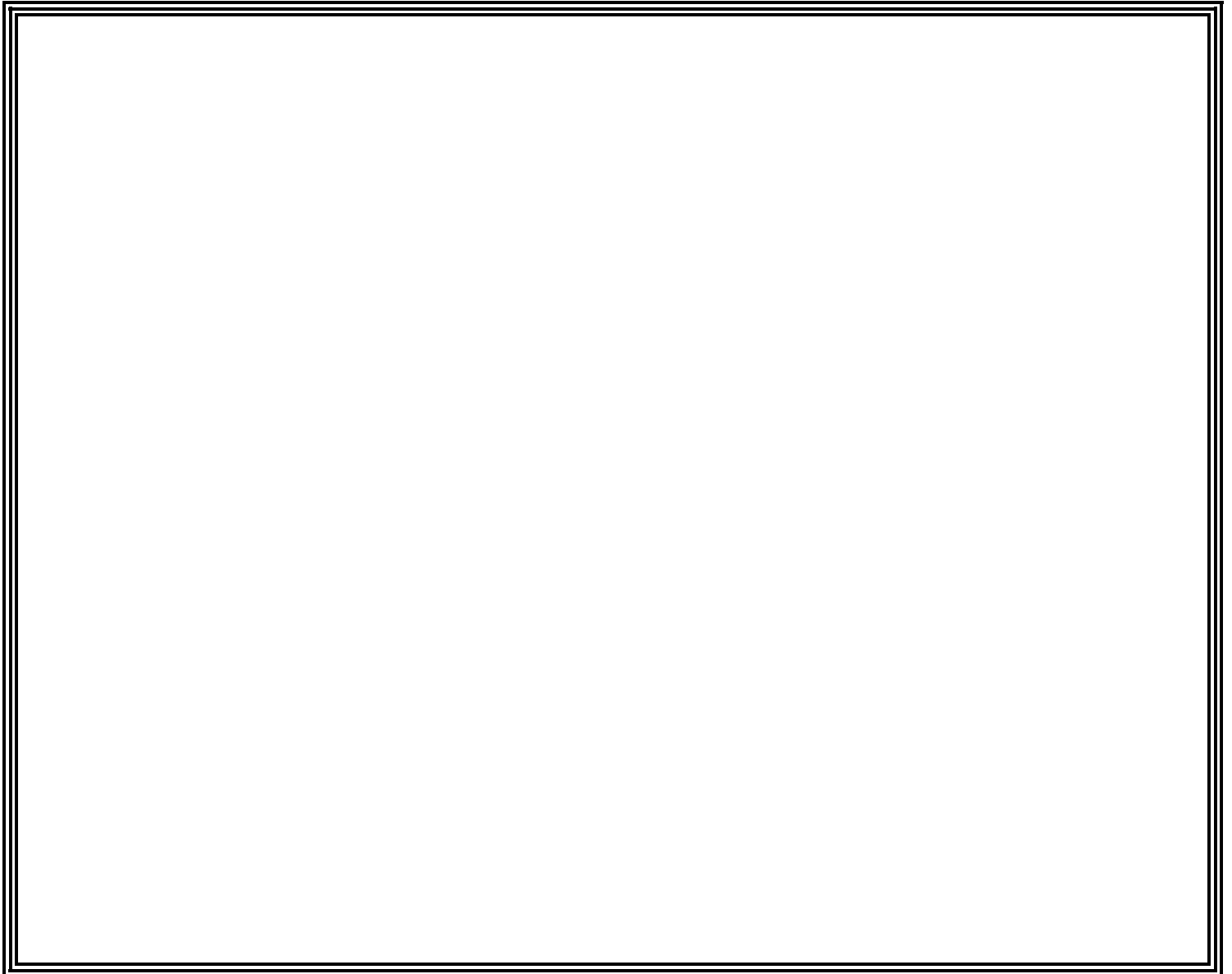
<p><b>Winter</b></p>	<p><b>Spring</b></p>
<p><b>Summer</b></p>	<p><b>Fall</b></p>

Use this information to make the second section of your poster about the tilt of the Earth.

## **Earth Location and Seasons**

There are 2 links that will help you with this section.

The Earth is at four different points in its orbit around the Sun when we have each season. Where is the Earth when it is Summer? Winter? Fall or Spring? Does the Earth tilt towards or away from the Sun? Research the above websites. Draw a picture of the Earth revolving around the Sun throughout the year. Show the Earth at its location during Winter, Spring, Summer, and Fall. Be sure to include the tilt of Earth's axis in your drawing.



Use the information and picture above to make the third section of your poster about the Earth's location in its orbit.

## Sun's Angle

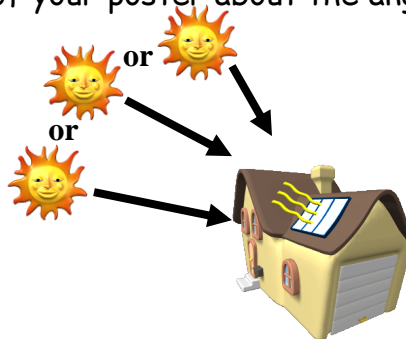
There is 1 handout and 1 link that will help you with this section.

How does the angle of sunlight that hits the Earth affect the seasons? Research the above websites. Draw pictures showing how the angle of sunlight determines whether the season is warm or cold. See the example below.

<p style="text-align: center;"><b>Winter</b></p>	<p style="text-align: center;"><b>Spring</b></p>
<p style="text-align: center;"><b>Summer</b></p>	<p style="text-align: center;"><b>Fall</b></p>

Use the information to make the fourth section of your poster about the angle of sunlight that hits the Earth (NC) during each season.

**For each season draw the Sun at its approximate altitude in the sky. Spring and Fall will be the exact same.**



Name: \_\_\_\_\_

## Seasons Poster Rubric

Your posters will be graded using the following rubric.

Due Date: \_\_\_\_\_

Category	3	2	1	0
<b>Directions &amp; Creativity</b>	-All required elements are included on the poster. This includes: all drawings are hand drawn in pencil, colored pencil and/or markers are used, poster is neat, organized and easy to read/interpret, explanations are used when necessary. -Student displays individual creativity.	X	X	-Poster is missing one or more of the required elements. Student failed to follow directions. No individual creativity is shown.
<b>Misconceptions</b>	-A minimum of four misconceptions are identified. -Student uses <i>both</i> drawings and written explanations to clearly identify/explain each misconception.	-Only three misconceptions are identified. or -Student failed to use both drawings and written explanations to clearly identify/explain each misconception.	-Only two misconceptions are identified. or -Student failed to use drawings and written explanations to clearly identify/explain each misconception.	-One or no misconceptions are identified.
<b>Tilt of the Earth</b>	-Student includes a written explanation to explain how the tilt of the Earth affects the seasons. -A drawing is used for each season that shows how the Earth is tilted in relation to the Sun. -Each drawing includes Earth's tilt correctly labeled as well as the Sun's direct ray striking the appropriate latitude on Earth.	-Student includes a written explanation to explain how the tilt of the Earth affects the seasons. -A drawing is used for only two or three of the seasons that shows how the Earth is tilted in relation to the Sun. or -Each drawing does not include Earth's tilt correctly labeled as well as the Sun's direct ray striking the appropriate latitude on Earth.	-Student includes a written explanation to explain how the tilt of the Earth affects the seasons. -A drawing is used for only one of the seasons that shows how the Earth is tilted in relation to the Sun. and/or -Each drawing does not include Earth's tilt correctly labeled as well as the Sun's direct ray striking the appropriate latitude on Earth.	-No written explanation is included. or -No drawings are used.

Category	3	2	1	0
<b>Earth Location and Seasons</b>	<p>-Student uses one drawing to clearly show how the Earth's position around the Sun changes throughout the year.</p> <p>-The drawing clearly shows how the Earth is tilted in relation to the Sun for each season.</p> <p>-Each drawing includes Earth's tilt correctly labeled as well as the Sun's direct ray striking the appropriate latitude on Earth.</p>	<p>-Student uses one drawing to clearly show how the Earth's position around the Sun changes throughout the year.</p> <p>-The drawing fails to correctly show how the Earth is tilted in relation to the Sun for each season.</p> <p>or</p> <p>-Each drawing does not include Earth's tilt correctly labeled as well as the Sun's direct ray striking the appropriate latitude on Earth</p>	<p>-Student uses one drawing to clearly show how the Earth's position around the Sun changes throughout the year.</p> <p>-The drawing fails to correctly show how the Earth is tilted in relation to the Sun for each season.</p> <p>and</p> <p>-Each drawing does not include Earth's tilt correctly labeled as well as the Sun's direct ray striking the appropriate latitude on Earth</p>	<p>-Earth's location in relation to the Sun is not clearly illustrated.</p>
<b>Sun's Angle</b>	<p>-Student includes a written explanation to explain how the angle of sunlight striking Earth's surface affects seasonal temperatures.</p> <p>-A drawing is used for each season that shows the approximate angle at which sunlight strikes the Earth for a location in NYS during each season.</p>	<p>-Student includes a written explanation to explain how the angle of sunlight striking Earth's surface affects seasonal temperatures.</p> <p>-A drawing is used for only two or three seasons that shows the approximate angle at which sunlight strikes the Earth for a location in NYS during each season.</p>	<p>-Student includes a written explanation to explain how the angle of sunlight striking Earth's surface affects seasonal temperatures.</p> <p>-A drawing is used for only one season that shows the approximate angle at which sunlight strikes the Earth for a location in NYS during that season.</p>	<p>-No written explanation is included.</p> <p>or</p> <p>-No drawings are used.</p>

Late Penalty (3 points per day) x \_\_\_\_\_ days = \_\_\_\_\_

Score: \_\_\_\_\_/15

Teacher Comments: