**The Water Cycle and Clouds Unit**

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

**Due Date: April 14, 2013**

The Big Idea: Water changes state and cycles throughout the entire planet Earth system, driven by energy from the sun.

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| --- | --- |
| Directions | Examine the activities you can do to learn the unit objectives. All of the activities and the dates we are doing them are listed below. They are due at the latest on April 14. No work will be accepted after April 14 unless you are absent that day.  The activities in bold are required for every student to do. These will help you learn the basics of the unit. After you have mastered the basics, move to B work and then A work for more challenging activities. You must demonstrate knowledge for each level before moving on to the next section.  When you complete an activity, you must turn it in to receive feedback. YOU MAY NOT TURN IN MORE THAN ONE ACTIVITY PER DAY. Including the last day of the unit.  As always, if you have questions ask or email. |
| Objectives | * Describe how the suns energy drives the water cycle. * Describe the water cycle. * Draw a diagram of the water cycle. * Give local examples of where the water cycle can be seen. * Explain how clouds form. * Name the four main types of clouds. |
| State Standards  Addressed | SYSA: Given a system, identify subsystems and a larger encompassing system.  SYSC: Give an example of how output from a system can become input for another system.  SYSD: Given a description of a system, analyze and defend whether it is open or closed.  ES2B Describe the role of the sun in the water cycle.  ES2C: Describe the water cycle and give local examples of where parts of the water cycle can be seen. |

**Vocabulary**

|  |  |  |  |
| --- | --- | --- | --- |
| **evaporation** | **condensation** | **infiltration** | **precipitation** |
| **runoff** | **transpiration** | **system** | **water cycle** |

**Use the calendar to document your progress each day.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
|  | **3/25**  **Intro to the Water Cycle Unit.**  **A Drop in the Bucket Activity** | **3/26**  **GLAD – Water**  **Cycle and Cloud**  **Formation** | **3/27**  **Cloud Logic**  **Activity** | **3/28**  **Bill Nye**  **Water Cycle**  **Video and**  **Questions** |
| **4/7**  **Air Pressure and Cloud Formation Lab** | **4/8**  **GLAD**  **Start Group Story** | **4/9**  **Complete and Present Group Story** | **4/10**  **Write and Draw the Water Cycle** | **4/11**  **Water Cycle**  **Game and**  **Cartoon** |
| **4/14**  **Grade Drawing**  **and Story**  **Water Cycle**  **Game and**  **Cartoon** | **4/15**  **Review Guide Due**  **The Water Cycle**  **Readers Theatre**  **All A, B and C**  **Work is Due**  **TODAY** | **4/16**  **TEST** |  |  |

**C Activities**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Topic | Activity | **Points**  **Possible** | **Due Dates** | **Completed** |
| **Earth’s Water** | **A Drop in the Bucket** | **10** | **3/26** |  |
| **Clouds** | **Cloud Logic Activity** | **10** | **3/28** |  |
| **Bill Nye Video** | **Bill Nye Video and Answer Questions** | **5** | **3/28** |  |
| **Clouds** | **Air Pressure and Cloud Formation Lab** | **10** | **4/9** |  |
| **Water Cycle Game** | **Play the Water Cycle Game. Record the Journey** | **5** | **4/15** |  |
| **Water Cycle** | **Draw a Cartoon Story About Your Water**  **Molecules Trip Through the Water Cycle** | **10** | **4/15** |  |
| **Water Cycle Drawing** | **Draw the Local Water Cycle** | **10** | **4/14** |  |
| **Review Guide** | **Review Guide** | **10** | **4/15** |  |

**B Activities**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Explain the Water Cycle | Explain the Water Cycle to an Adult | 15 | 4/15 |  |
| Poem, or Children’s Book | Create a Poem or Children’s Book About the Water Cycle | 15 | 4/15 |  |
| Evaporation Condensation Lab | Temperature of Water vs. Evaporation and Condensation Lab | 15 | 4/15 |  |

**A Activities**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Pollution | Importance of Water | 15 | 4/15 |  |
| Scarce Water | Running out of Water! | 15 | 4/15 |  |
| Cloud Seeding | Cloud Seeding | 15 | 4/15 |  |

**Test**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test | The Water Cycle and Clouds Unit Test | 150 | 4/16 |  |