**Inside the Earth Unit**

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

**Due Date: May 19, 2015**

***The Big Idea: The transfer of energy inside the Earth affects its surface.***

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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 on the unit calendar. The due dates are listed under ‘Activities’. The unit ends on 5/19, no work will be accepted after that date. The test is on 5/20. \*\***The Review Guide and Independent Work are due on 5/19 and will not be accepted late.\*\***  The activities are required for every student to do. These will help you learn the basics. After you have mastered the basics, move to the Independent Work section for a more challenging activity.  **\*\*It is your responsibility to complete assignments on time according to the due dates listed. By not turning in assignments you will receive a ZERO for that assignment. You have three school days to turn in late assignments (unless the end of the unit is before that). Late assignments will receive a 25% penalty for every school day they are late. \*\*** |
| Objectives | * Explain how geologists learn about Earth’s inner structures. * Identify the characteristics of Earth’s crust, mantle, and core. * Sketch and label the major layers of the Earth, showing approximate relative thicknesses and consistency of the crust, core and mantle. * Draw and label a diagram showing how convection in the upper mantle drives movement of crustal plates. |
| State Standards  Addressed | INQE: Create a model to represent the behavior of events.  PS3C: Explain how convection transfers energy inside the Earth.  ES2E: Sketch and label the major layers of the Earth, showing approximate relative thicknesses and consistency of the crust, core and mantel.  ES3F: Draw and label a diagram showing how convection in the upper mantle drives movement of crustal plates. |

Unit Vocabulary

|  |  |  |  |
| --- | --- | --- | --- |
| seismic waves | crust | mantle | lithosphere |
| asthenosphere | outer core | inner core | pressure |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
|  |  |  | **5/7**  Unit Intro  Prediction Guide  Bill Nye “Inside the Earth” Video and Notes | **5/8**  Layers of the Earth Activity |
| **5/11**  Layers of the Earth Activity | **5/12**  GLAD: Inside the Earth  Analyzing Data | **5/13**  Inside the Earth Flip Book | **5/14**  Grade Analyzing Data and Layers of the Earth Activity  Probing Question: What Heats the Earth’s Core?  Intro Modeling Mantle Convection Currents Lab | **5/15**  Modeling Mantle Convection Currents Lab |
| **5/18**  Review Lab  Grade Flip Book and Probing Question | **5/19**  Mrs. Nelson’s Last Day ☹ | **5/20**  Review Guide and Independent Work Due | **5/21**  **Test** | **5/22** |

**C Activities**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Topic | Activity | Points Possible | Due Dates | ✓ |
| **Prediction Guide** | **Complete Before portion of AG** | **5** | **5/7** |  |
| **Video** | **Bill Nye Video: Inside the Earth and notes** | **5** | **5/7** |  |
| **Inquiry** | **Layers of the Earth Activity** | **20** | **5/13** |  |
| **Data** | **Analyzing Data: Temperature Inside the Earth** | **5** | **5/13** |  |
| **Inside Earth** | **Inside the Earth Flipbook** | **10** | **5/15** |  |
| **Content Reading** | **Probing Question: What Heats the Earth’s Core?** | **10** | **5/18** |  |
| **Lab** | **Lab: Modeling Mantle Convection Currents** | **10** | **5/19** |  |
| **Review** | **Review Guide** | **10** | **5/20** |  |
| **TEST** | **Unit TEST** | **120** | **5/21** |  |
|  |  |  |  |  |

**Independent Work**

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| --- | --- | --- | --- | --- |
| Writing | Compare and Contrast Oceanic and Continental Crusts TYPED | **15** | **5/20** |  |
| Writing | Journey to the center of the Earth TYPED | **15** | **5/20** |  |
| Writing | Compare and Contrast the Rocky Planets and Earth TYPED | **15** | **5/20** |  |
| Math | Properties of the Earth’s Interior EXTRA CREDIT | **20** | **5/20** |  |