**Grade Level: \_\_5\_\_\_\_ Subject: \_Science\_**

**Unit Number and Title:\_\_\_\_Unit 4** Investigating Ecosystem Interactions**\_\_\_\_\_\_\_ #Days\_\_13\_\_ #SEs\_\_4\_\_\_ #PAs\_\_5\_\_\_**

**\_\_IFD Planning Guide**

 **Science**

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| **IFD Summary**Changes in Earth’s surface: how sedimentary rocks formed and fossil fuelsInvestigate landforms: deltas, canyons, dunes, etc.Formed by: water, wind, ice, etc.Communicate and discuss observations and record data in their ISN’s |

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| **PA # \_\_\_\_\_\_:****Description of PA:** | **Standard:****(verb/content)** | **TCD or VAD notes****(TCD for High School)** | **STAAR Analysis****(released items)** | **Vocab** | **Notes-Resources:****Instruction:** |
| [Grade 5 Unit 04 Earth’s Changing Surface PA](https://teksresourcesystem.net/module/content/search/item/694270/viewdetail.ashx)The United States Geological Survey (USGS) provides free educational resources. You have been asked to assist them with their project. Please do the following:* Create a booklet or brochure explaining how the forces of wind, water, and ice change the Earth’s surface.
* Include examples of landforms created by the forces of wind, water, and ice.
* Explain how each example was formed.

Standard(s): [**5.2D**](https://teksresourcesystem.net/module/standards/0/218087/standard.ashx), [**5.7B**](https://teksresourcesystem.net/module/standards/0/218099/standard.ashx), [**ELPS.c.1C**](https://teksresourcesystem.net/module/standards/0/118101/standard.ashx), [**ELPS.c.5F**](https://teksresourcesystem.net/module/standards/0/118142/standard.ashx) | **5.2D Process**V: Analyze, interpretC: construct reasonable explanations form direct (observable) and indirect (inferred) evidence. | InformationStudent investigationHands-on with a graphing activity Teacher demo | Interpret data given as a graph diagram, or table |   | [TX Gateway Science Glossary](https://www.texasgateway.org/resource/interactive-science-glossary) |
| **5.7B Readiness****V: Recognize** C: how landforms such as deltas, canyons, and sand dunes are the result of changes to Earth's surface by wind, water, or ice.  | **Landforms:** **Water**-deltas, canyons, arches, beaches, barrier isles**Wind-**canyons, dunes**Ice-**U-shaped valleys, fjords**Weathering erosion-**mesa, canyons**Deposition-**delta, alluvial fan | Note Kids recognize how these forms look and why | LandformDepositionErosionWeatheringCanyonDeltaGlacierDuneSedimentu-shape | Students will need to see forms and understand what made them. Ice: u-shape Water: canyonsDeposition: deltasMake other word connections[5.7B STAAR Analysis](https://teksresourcesystem.net/module/content/search/item/686424/viewdetail.ashx) |
| **Misconceptions** -Students may think wind, water and ice cannot exert enough force to have a significant effect on the Earth’s surface, rather than wind, water, and ice changing and shaping the Earth’s surface over time.-Students may think that all valleys are canyons |
| **PA # \_\_\_\_\_\_:****Description of PA:** | **Standard:****(verb/content)** | **TCD or VAD notes****(TCD for High School)** | **STAAR Analysis****(released items)** | **Vocab** | **Notes-Resources:****Instruction:** |
| [Unit 04 PA 02 Formation of Sedimentary Rocks and Fossil Fuels PA](https://teksresourcesystem.net/module/content/search/item/694272/viewdetail.ashx)The local library has requested that you create an informational booklet to illustrate and describe some of Earth’s processes. Please do the following in your booklet.* Illustrate and describe the following processes:
	+ The processes that result in the formation of sedimentary rocks
	+ The processes that result in the formation of fossil fuels

Standard(s): [**5.2D**](https://teksresourcesystem.net/module/standards/0/218087/standard.ashx), [**5.7A**](https://teksresourcesystem.net/module/standards/0/218098/standard.ashx), [**ELPS.c.1C**](https://teksresourcesystem.net/module/standards/0/118101/standard.ashx), [**ELPS.c.5F**](https://teksresourcesystem.net/module/standards/0/118142/standard.ashx),[**ELPS.c.5G**](https://teksresourcesystem.net/module/standards/0/118143/standard.ashx) | **5.7A Readiness****V: Explore**Processes that formed sedimentary rocks and fossil fuels | **Sedimentary:**Weathering, Erosion, Deposition,Compaction, Cementation**Types of sedimentary rocks****Fossil fuels**Coal, Petroleum, Natural gas | Note: Students need to see the process (q 17)which process forms sedimentary rock? | CompactionSedimentary rocksCementationDepositionErosionFossil fuels kindsProcess of formationWeathering | [**5.7A STAAR Analysis**](https://teksresourcesystem.net/module/content/search/item/686423/viewdetail.ashx)[**TX Gateway Fossil Fuels**](https://www.texasgateway.org/resource/sedimentary-rocks-and-fossil-fuels) |
| **Misconceptions:**-Students may think sedimentary rock layers are always perfectly flat layers.-Students may think oil comes from dead dinosaurs, rather than from organic aquatic sediments.-Students may think oil forms in large empty spaces underground, rather than in the spaces (or pores) of rocks. |

Assessment Creator

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| **Unit Blueprint** |
|  | **Total problems** | **Rate****(min/problem)** | **Readiness****(Count/ %)** | **Supporting****(Count/ %)** |
| **STAAR Assessment** |  |  |  |  |
| **Unit Assessment** |  |  |  |  |

Day-by-Day Outline

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| 1Intro to landforms through a series of activities done through the Weebly website[Digital Science Weebly](http://digitalscience2.weebly.com/)Engage:[Rock Observations](https://www.youtube.com/watch?v=juxLuo-sH6M&feature=related) through the TX Gateway[Sedimentary Rocks and Fossil Fuels 5E](https://www.texasgateway.org/resource/sedimentary-rocks-and-fossil-fuels) | 2 Explore:Students will categorize a series of landforms through observation and prior knowledge. They will then be required to explain their organization. They may use words from a word wall or bank | 3 Explain Students will use the activity found in the Weebly to begin to connect the landforms with how they may have formed. In groups, they will record their determinations and enter to the Padlet provided | 4 Formative assessmentStudents will take a short quiz to go over some of the concepts explored.They will also participate in a short [Quizlet.live](https://quizlet.com/latest) session with some of the key vocabulary used for this unit. | 5 Explain:Students will organize a series of cards of various objects. They will determine their organization and whether these items are appropriately matched. |
| 8 Elab/evalPA 1See PA details  | 9 Engage[Fossil fuel Video](https://www.youtube.com/watch?v=zaXBVYr9Ij0&list=PLInBhl6ci6p9cH3czyXD3ZbV8pqVDrDKd&index=3)Students will watch video and write their observations and thoughts to the ISN journaling section  | 10 ExploreStudents will continue with the TX Gateway resource to continue their exploration of the concepts involved. | 11ExplainIn their collaborative groups, students will create flow charts explaining how the process of creating sedimentary rocks. They will use the academic vocab as they write their process. They will load their creations to the [Seesaw app](https://web.seesaw.me/)  | 12ElaborateIn groups, the students will show how fossil fuels form through illustrations and diagrams.They will record their work and explanations and turn in to the [Seesaw app](https://web.seesaw.me/) |
| 15 EvaluatePA 2See details for the activity above | 16 Review and RTI | 17 Review and RTI | 18 | 19 |
| 22 | 23 | 24 | 25 | 26 |