Science: Rocks & Minerals, and Paleontology Unit Plan Miss. Schabler

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| Lesson # | Topic | Lesson Length | Learning Outcomes | | Objectives | Assessment | Resources and Materials |
| 1 | Rocks & Minerals introduction | 90 min | 3-1  3-2  3-4  3-5 | A-2  A-4  4.1.1 | Students are introduced to the unit by completing a KWL chart for rocks, analyzing different kinds of rocks & minerals with magnifying glasses, and reading new information from books. | KWL Chart  Participation Rubric | SMART board  Ruler  Pencil  Blank Paper  Rocks & Minerals books  Magnify glasses  Rocks & mineral bags |
| 2 | Rock Properties | 90 min | 3-1  3-2  3-4  3-5 | A-2  A-3  A-4 | Students are introduced to the different properties to characterize rocks and minerals through a handout with online research and an experiment. | Rocks & Minerals Experiment Sheet  Participation Rubric | SMART board  Lap tops  Rocks box  Tile  Scale  Ruler  Handout |
| 3 | Types of Rocks  Rock Cycle | 90 min | 3-1  3-2  3-4  3-5 | A-1  A-2  A-3  A-4 | Students will first review the properties of rocks and minerals. Students will remember, understand, and identify the three types of rock within the rock cycle. | Worksheet  Participation Rubric | SMART board  Rock Cycle worksheet  Rock Definitions  Review Worksheet |
| 4 | Minerals | 90 min | 3-1  3-2  3-3  3-4  3-5 | A-2  A-3 | Students will understand the properties used to classify minerals by the use of centers and complete their “Conclusion” from their Rocks & Minerals experiment Sheet. | Rocks & Minerals Experiment Sheet  Participation Rubric | Mineral Box set  Minerals Posters  Rocks Box  Books |
| 5 | Crystal Experiment  Rocks & Minerals Uses | 90 min | 3-1  3-2  3-3  3-4  3-5 | A-2  A-3  A-7 | Students will create a crystal experiment in table groups as one center, while also exploring the uses of rocks and minerals in our lives. | Participation rubric  Experiment worksheet | SMART board  Experiment worksheet  Sponges  Salt  Epsom salt  Blue Die  Spoons  Cups  Plates  Lap tops  Matching cut-outs |
| 6 | Weathering & Erosion | 90 min | 3-1  3-2  3-3  3-4  3-5 | A-2  A-6  4.1.1 | Students will examine their crystals experiments from the day before (results / conclusion). Students will understand weathering and erosion and its effects in Alberta. | Matching Worksheet  Participation Rubric | SMART board  Weathering and erosion matching worksheet |
| 7 | Soils | 90 min | 3-1  3-2  3-3  3-4  3-5 | A-5  A-6 | Students will explore soils through the SMART board and center activities. Students will also review weathering & erosion within center activities and videos. | Participation rubric  Soils observation sheet | SMART board  2-3 buckets of soil (clay, silt, sand)  pencil crayons  handouts  laptops |
| 8 | Fossils  Soil Cake  Introduce Final Project | 90 min | 3-1  3-2  3-3  3-4  3-5 | A-5  4.1.1 | Students will understand how fossils are created and analyze the sequence of fossil creation.  Students will be introduced their their final project and create a soil cake. | Participation rubric  SMART board activity | SMART board  Pudding  Gummy worms  Chocolate cake  Oreos  Graham crackers  Bowl  Spoons  cups |
| 9 | Galt Museum Trip | 90 min | 3-1  3-2  3-3  3-4  3-5 | 4.1.1 |  |  | Permission forms  Bus |
| 10 | Project Work Period | 90 min | 3-1  3-2  3-3  3-4  3-5 | A-1  A-2  A-3 | Students review previous knowledge in addition to conducting online research from provided websites to create a PowerPoint presentation of a birthstone (in pairs). | Participation rubric: 10% | Lap tops  Check lists  Paper  pencil |
| 11 | Project Work Period | 90 min |
| 12 | Project Presentation | 90 min | 3-4  3-5 | A-1  A-2  A-3 | Students will present their PowerPoint presentation. | Participation rubric: 5%  Performance task rubric weight: 15% | SMART board  Rubric  checklist |