**Teaching and Learning Program for the Elements**

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| **T:\Office\Graham Moore\jpeg sentral logo.jpg** | **Teaching and Learning Program** |
| **Title/Type of Unit: Chemistry and Matter****Program Risk Level: High** | **Duration: 10 weeks****By:** |
| **Syllabus Outcomes****Stage**  | *A student:*SC5-3VA demonstrates confidence in making reasoned. Evidence based decisions about the current and future use and influence of science and technology, including ethical considerationsSC5-8WS applies scientific understanding and critical thinking skills to suggest possible solutions to identified problemsSC5-16CW explains how models, theories and laws about matter have been refined as new scientific evidence becomes availableSC5-17CW discusses the importance of chemical reactions in the production of a range of substances, and the influence of society on the development of new materials |
| **Connectedness****Why does this learning matter?** | **Students learn to:** * Respect the use of chemicals
* Use science equipment appropriately
* Identify problems and solve them using basic scientific knowledge
 | **Students learn about:*** How different chemicals mix with others
* The dangers around mixing certain chemicals
* How chemicals influence society
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| **Background and Key Ideas** | Key ideasStudents extend their knowledge in science through practical experimentsFollow up through worksheets and ICT |
| **Literacy Continuum** | Reading Texts | Comprehension | Vocabulary Knowledge | Aspects of Writing | Aspects of Speaking | Phonics | Phonemic Awareness | Concepts About Print |
| Students extend their vocabulary based around new scientific wordsStage 4: Cluster 8Stage 5: Cluster 10 |
| **Numeracy Continuum** | Counting Sequences | Counting as Problem Solving | Pattern and Number Structure | Place Value | Multiplication and Division | Fraction Units | Length, Area and Volume |
| Numeracy concepts are not the emphasis of this program although measurement in regards to volume could be considered |

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| **Quality Teaching** |
| **Intellectual Quality** | **Quality Learning Environment** | **Significance** |
| * IQ1 Deep Knowledge
* IQ2 Deep Understanding
* IQ3 Problematic Knowledge
* IQ4 Higher-order Thinking
* IQ5 Metalanguage
* IQ6 Substantive Communication
 | * QLE1 Explicit Quality Criteria
* QE2 Engagement
* QE3 High Expectations
* QE4 Social Support
* QE5 Students’ Self-regulation
* QE6 Student Direction
 | * S1 Background Knowledge
* S2 Cultural Knowledge
* S3 Knowledge Integration
* S4 Inclusively
* S5 Connectedness
* S6 Narrative
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| **Teaching and Learning Lesson Overview** |
| **The Elements of Learning & Achievement**F:\Mock ups\Square elements\Numeracy.jpg | Week 1What are Chemical elements P2PracticalOil Fire Demo and H2O balloonWeek 2What makes particles move P1PracticalBi-Carb soda and chemical rocketsWorksheet: [Pgs,1-2](file:///%5C%5CDetnsw.win%5C5583%5CFaculty%5CTeacher%5C2016%20Programs%5CTerm%202%5CStage%205%5CScience%5CWorksheets.pdf)Week 3Chemical ReactionsMaking OobleckWorksheet: [Oobleck](file:///%5C%5CDetnsw.win%5C5583%5CFaculty%5CTeacher%5C2016%20Programs%5CTerm%202%5CStage%205%5CScience%5COobleck.pdf)Week 4What is soundwaves and & how do we measure themRubens tubeWeek 5Chemical ReactionsMaking SlimeThroughout the program work through the booklet about [chemical reactions](file:///%5C%5CDetnsw.win%5C5583%5CFaculty%5CTeacher%5C2016%20Programs%5CTerm%202%5CStage%205%5CScience%5CWorksheets.pdf) | **Aboriginal 8 Ways of Learning***The following ways of learning are incorporated throughout the program through pedagogical practices*4_symbol.jpgSymbols & Images7_deconstruct.jpgDeconstruct/ ReconstructLand LinksStory SharingNon-Verbal |

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| **Special Needs Adjustments** | **School to Work** |
| Smaller classes, higher supervisionPair students appropriately |  |
| **Assessments** |
| Ongoing throughout unit |
| Roles and Responsibilities |
| Teacher | SLSO | Student |
| Behaviour managementEncourage engagementWork through booklet | Encourage engagementAssist with equipment | Engage in experimentsBe respectful to Prairiewood staffUse safety equipment appropriately  |
| **Risk Assessment – Dorchester ETU only** |
| **Resources** | **Safety Strategies** | **Identified Hazards** | **Control Strategies** |
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| **Teacher Evaluation****Comments / Variations** |
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| **Date Commenced**:  | **Date Finished**:  |
| **Teachers Signature**: | **Assistant Principals Signature**: |