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| **Time/Date** | **Learning Outcomes/PLOs** | **Activities** | **Assessment** | **Materials/Resources** |
| February 11, 2014  Microscopes | A1-Demonstrate safe procedures  A6-Demonstrate cooperative behaviour  A8-Competence in the usage of technologies | 1. Hands on introduction to microscopes 2. Demonstration of wet mounting 3. Activity involving viewing text, pictures, and pond water under the microscope 4. Students provided with activity sheet that will be marked 5. Microscope labelling sheet for homework | Formative: Participation and proper safety behaviour in superlab  Summative: Activity sheet + microscope labelling sheet for marks and homework completion | One microscope for each student in class  Activity sheet  Microscope labelling sheet |
| February 12, 2014  Living Organisms | B1-Demonstrate knowledge of characteristics of living things  A6-Demonstrate cooperative behaviour | 1. Microscope quiz 2. Short discussion on commonalities of living things 3. Introduce 5 characteristics of living things 4. Activity to differentiate between living and non-living organisms 5. Introduce viruses: Living or non-living? | Formative: Participation in pair discussion  Summative: Microscope quiz | Prepared microscope quiz, activity, virus powerpoint, video |
| February 13, 2014  Cell Theory | B2-Relate main features and properties of cells to their functions | 1. Go over answers to microscope quiz 2. Show introductory video of cells 3. Role-play as Louis Pasteur, recreate some of his experiments and facilitate inquiry session 4. Summarize cell theory | Formative: Participation in inquiry | Marked quiz, prepare introductory cell video, prepare roleplay + materials for inquiry, prepare to introduce cell theory |
| February 14, 2014  Cell Organelles | B2-Relate main features and properties of cells to their functions | 1. Introduce cell organelles and compare the cell to a factory 2. Differentiate between plant and animal cells 3. Students will make a multiple choice quiz on cell organelles independently for other students to complete | Formative: Participation in inquiry  Summative: Quiz will be marked on quality of questions | PowerPoint introducing cell organelles  3D cell information sheet + rubric for students |
| February 17,  2014  3D Cell Construction | B2-Relate main features and properties of cells to their functions | 1. Students will create a 3D model of the animal cell out of modelling clay 2. A completed 3D cell will be shown as an example prior to this activity. The teacher will provide a rubric for marking the cell activity. | Formative: Participation in activity, how well a student works with his/her partner.  Summative: 3D cell will be marked on accuracy and inclusion of organelles | Prepare modelling clay for students  Prepare a completed cell as an example |

**UNIT PLAN**

**Lesson Topic: Chapter 1: Cells Classes: February 11-February 24 (8 Total Lessons)**

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| **Time/Date** | **Learning Outcomes/PLOs** | **Activities** | **Assessment** | **Materials/Resources** |
| February 18, 2014  Diffusion | B2-Relate main features and properties of cells to their functions | 1. Drop dye in water and discuss observations 2. Visual + Kinesthetic demonstration of diffusion using students as particles 3. Real-life application: How human body requires diffusion to function (oxygen diffusion into bloodstream) 4. Activity sheet featuring questions regarding diffusion | Summative: Activity sheet to be checked for homework completion | Prepare dye, beaker of water  Prepare coloured paper circles to represent particles  Prepare activity sheet |
| February 19, 2014  Osmosis | B2-Relate main features and properties of cells to their functions | 1. Naked egg demonstration showcasing osmosis 2. Visual + Kinesthetic demonstration of osmosis using students as particles 3. PowerPoint summarizing process of osmosis 4. Activity sheet featuring questions regarding osmosis | Summative: Activity sheet to be checked for homework completion | Prepare at least a day in advance naked egg demo  Prepared coloured paper circles  Prepare activity sheet |
| February 20, 2014  Human Body Systems |  | **Start of Chapter 2: Lesson will be detailed in Chapter 2 Unit Plan** |  |  |
| February 21, 2014  PRO-D Day | N/A | N/A | N/A | N/A |
| February 24, 2014  Chapter 1 Test | B1, B2 | 1. Chapter 1 Test: Covers characteristics of living things, cell organelles and functions, differences between animal and plant cells, viruses 2. Have students provide test feedback: How hard did you find test? What was easiest? What was hardest? | Summative: Exam | Prepare test |