**Learning Centres Assignment**

**Math 412**

* You will be randomly assigned to a group of five and each group will be randomly assigned a grade from P to 6.
* Your group will choose a unit from your assigned grade level for which to develop the learning centres. It is preferred that you choose an aspect of Numeracy (Number & Operation), Patterns and Algebra, or Geometry. Your centres should focus on the key concepts from the unit.
* Each group member is responsible for developing two learning centres however you should plan together so that there is good cohesion and variety among the centres. You will also work on a two-page write-up collaboratively.
* The two-page write-up should include
  + the Atlantic Canada Curriculum outcomes addressed by the centres
  + a summary of each centre
  + a detailed explanation as to which outcomes and processes are being assessed by each centre and how they should be assessed.
* Your centres should draw upon what you have learned in your P&P and inclusion classes, as well as in this class to ensure there is a significant level of differentiation in each of the centres. In particular you should incorporate differentiation through a variety of:
  + learning modalities
  + learning styles
  + multiple representations
  + levels of difficulty
* You will be given time in class to set up your learning centres and allow your classmates to engage with the activities and ask questions. The presentations will occur on the following dates:
  + February 23, 2010 – P, 1, 2 & 3
  + February 25, 2010 – 4, 5 & 6
* Some key points to remember:
  + Learning centres are meant to be student-led not teacher led. The centre directions should be clear enough that students can easily engage with the tasks without help from teacher.
  + Attend to the reading level for the grade level. Remember most grade primary and 1 students in particular cannot read written directions.
  + It is often a good idea to include variety in a centre so that the student can return to the centre and engage with a different but similar task.
  + Manipulatives are available to be borrowed from the CRC although please be mindful to share.
  + Activities should be focused on good mathematics, rich and meaningful tasks, and should be fun and engaging for students.
  + You should cite any sources you make use of.

**Scoring Rubric**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | **4** | **3** | **2** | **1** |
| **Your centre’s appeal** | | the centre is presented  such that the task and  the materials would  excite students at the  given level | the centre is presented  such that the task and  the materials would  engage students at the given level | the appeal of the  centre’s task is  questionable | the centre’s task is  unlikely to appeal to  students at the given  level |
| **Your centre’s directions** | | the centre gives clear  age-appropriate  directions for students to engage in rich and relevant activity | the centre gives  adequate directions for students to engage in worthwhile and  relevant activity | the relevance of the  task is questionable  in relation to  curriculum and NCTM process demands | the task is not relevant  in relation to  curriculum and NCTM process demands |
| **Cohesion and depth of centres** | | the centres cohere  *strongly* around a  central topic/idea, and direct a range of *rich* mathematical activity (content and  processes) | the centres cohere  around a central  topic/idea, and direct a range of mathematical  activity (content and  processes) | the centres either  cohere around a  central topic/idea, or  direct a range of  mathematical  processes, but not both | the connections  between the centres is loose, and they do not engage a range of  mathematical  processes |
| **Differentiation** | | centres draw on an excellent variety of representations, learning modalities and learning styles, with varying levels of difficulty to allow all students to engage with the tasks | centres draw on an good variety of representations, learning modalities and learning styles, with varying levels of difficulty to allow students to engage with the tasks | centres draw on limited use of representations, learning modalities and learning styles, with varying levels of difficulty limiting the opportunity for all students to engage | centres does not draw on a variety of representations, learning modalities or learning styles, and does not allow all students to engage with the tasks |
| **Communication to peers** | | engaging and  knowledgeable  presentation of the  centres and of the  accompanying writing | solid and clear  presentation of the  centres and of the  accompanying writing | some aspects of the  presentation of the  centres and the  accompanying writing showed professionalism | the presentation of the centres and the  accompanying writing lacked professionalism |
| **Two Page Write-up** | **NCTM Process Standards** | demonstrates an  excellent understanding of  NCTM processes, and demonstrates how to assess them with the centres | demonstrates a very  good understanding of NCTM processes and demonstrates how to assess them with the centres | demonstrates some  understanding of  NCTM processes with some misconceptions  in application to  assessment with the  centres | demonstrates a lack of understanding of  assessing NCTM  processes in application to the  centres |
| **Atlantic Canada Curriculum Connections** | lists central curriculum  correlations with a  clear and well structured plan for  assessing students’  achievement of the  outcomes | lists central curriculum  correlations with a  coherent plan for  assessing students’  achievement of the  outcomes | lists some curriculum  correlations with a  somewhat coherent  plan for assessing  students’ achievement  of the outcomes | curriculum  correlations do not  seem to fit the  activities or the plan  for assessing them is  unrealistic |