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| **PROGRAMME** |
| BA (Hons) Primary Education with QTS |

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| LEVEL | MODULE CODE | MODULE TITLE |
| 3 | PE306 | Mathematics in Education |

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| TITLE OF ASSIGNMENT | WEIGHTING |
| Pupil investigations | 50% |

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| Purpose:  This purpose of this assignment is to enable you to:   * improve your teaching through analysis * reflect on your own learning and apply this to your pedagogy   Guidance Notes:  This assignment links to the previous one, your own mathematics investigations, and what you have learned from them.  You need to compile a set of 6 mathematics investigations for pupils. There should be originality in the presentation of investigations, with a clear sense of audience and purpose stated in the introduction (e.g. developing systematic recording; extending high attainers in Year 1; a family project to look at the maths of everyday life with nursery children; exploring shape and space in the school environment; selecting and supporting a school charity). The investigations do not need to be original but if they are not the source must be made explicit and referenced.  These investigations should be used during the final school placement so you are planning for real pupils. They could be spread out over the entire placement (1 per week over 6 weeks) or used in a concentrated block. The investigations do NOT need to be aimed at the whole class but differentiation of an investigation over several ability levels still counts as one investigation, not three. The investigations could focus on a single aspect of mathematics or could relate to a range of topics. They may be used during numeracy lessons, as part of a maths corner or as homework. The way you plan to use them should be discussed in the introduction.  The pupils’ investigations should be motivating and there should be a clear link between the evaluation of your own investigations and the reasons you have included the different pupil investigations. Do think about what makes it an investigation rather than just a practice activity.  One of the investigations needs to be accompanied by detailed guidance to teachers including why this investigation should be used, objectives related to Using and Applying Mathematics, differentiation if appropriate, the likely range of mathematical outcomes pertinent to Using and Applying Mathematics and an understanding of how to assess and extend these.  Your teachers’ guide should refer to both your own experience from undertaking investigations and literary sources. If you are teaching an Early Years class you should use the EYFS, Early Years Foundation Stage guidance and adapt the Key Stage 1 Using and Applying Mathematics statements where appropriate.  **Contents:**  Introduction   * the age and abilities of the target class * the purpose behind the investigations * the organisation of the investigations * the links between the decisions made and own learning experience, including school based evidence * references to literary sources   Set of 6 investigations with objectives related to Using and Applying Mathematics.   * source acknowledged if not original   For **one** of the investigations   * why this investigation was chosen * the type of investigation * detailed guidance for use, including differentiation and key questions * differentiated outcomes and suggestions for assessment * the links between the decisions made and own learning experience * references to literary sources   **Length:** Approximately 2500 words (to include all components) |

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| MODULE OUTCOMES TO BE TESTED  By the end of the module, students will be able to:   * reflect on their learning and apply this to their pedagogy   **QTS Standards Q7, Q10, Q14, Q15, Q16, Q17, Q22, Q23, Q25** |

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| **Assessment Criteria:**  **Choice and Justification of Investigations (50%)**   * understand the differences between investigations and practice activities * interesting and motivating investigations * ability to apply own learning to pupil investigations * exposition of the implications for teaching including objectives, organisation, resources, cross-curricular links, methods of assessment and levels for the pupil investigations   **Selection and Analysis of Sources (25%)**   * include recent articles * theories relating to evaluation of own learning  **Quality of Communication (25%)**  * appropriate use of Standard English * investigations for pupils should be well presented, stimulating and motivating, with user-friendly notes * awareness of audiences |

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| DATE AND TIME OF SUBMISSION  Friday 23rd January 2009 BEFORE 4:00pm  This assignment will be marked anonymously so you must use your student number rather than name.  *Note to students: Any work submitted after this date will receive a mark of zero. All requests for extensions must be submitted to the Programme Leader for approval before the date stated. Such claims must be on the standard pro forma and must be accompanied by corroborating evidence. Following the date of submission requests may be made for the Board of Examiners to take extenuating circumstances for non-submission into account. All such requests must be made on the standard pro forma and must be accompanied by corroborating evidence*. |

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| DATE ON WHICH MARKED WORK WILL BE AVAILABLE FOR COLLECTION  Friday 20th February 2009 |

PLAGIARISM

Note to students: Your attention is drawn to the College’s Code of Practice covering plagiarism. Penalties for work found to be plagiarised are severe and can include the withdrawal of the right to resubmit work and termination of studies. On the submission of the assignment you will be required to sign a declaration that the work is your own and that all sources have been properly acknowledged.

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|  | Choice and justification of investigations (50%) | Use of Sources (25%) | Quality of Communication (25%) |
| A\*  80+% | Investigations created show originality and variety, with an underlying coherence. The levels of attainment and cross curricular issues have been carefully considered. Perceptive references are made to own learning and school experience. The teacher guidance is professional, perceptive and precise, thorough discussion of a wide range of issues supports the pupil investigations. | A scholarly approach was adopted in the selection, analysis and evaluation of sources used, considering theoretical, research based and professional texts. | Excellent presentation and communication in teachers’ guide.  Professional presentation of investigations is imaginative, stimulating and motivating. Complete accuracy of grammar, spelling and punctuation. |
| A  70-79% | Investigations selected show originality and variety. The levels of attainment and cross curricular issues have been carefully considered. Thoughtful references are made to own learning and school experience. The teacher guidance is professional, thorough and precise, full discussion of a wide range of issues supports the pupil investigations. | A critical approach was adopted in the selection, analysis and evaluation of sources used, considering academic and professional texts. | Presentation and communication are of high quality, well suited to the audience. High standard of presentation of investigations is stimulating and motivating. Accuracy of grammar, spelling and punctuation. |
| B  60-69% | Investigations selected are varied and interesting. The levels of attainment and cross curricular issues have been considered. Good references are made to own learning and school experience. The teacher guidance is professional, clear and organised and effectively supports the pupil investigations, with discussion of a wide range of issues. | Good judgement was applied to the selection, analysis and evaluation of sources used, recognising appropriate use for academic and professional texts. | Presentation and communication are good, showing appropriate to the audience. Good standard of presentation of investigations is motivating. Generally accurate use of grammar, spelling and punctuation. |
| C  50-59% | Investigations selected are varied and appropriate. The levels of attainment and/or cross curricular issues have been included. Appropriate references are made to own learning and school experience. The teacher guidance is clear and organised and supports the pupil investigations, discussing a range of issues. | Sound judgement was applied to the selection of sources; analysis and evaluation link effectively to the investigations. | Presentation and communication are effective, showing an awareness of audience. Investigations are clearly presented and appealing. Some inconsistencies in written style which impair communication. |
| D  40-49% | Investigations selected are appropriate. Some consideration of the levels of attainment or cross curricular issues. Some references are made to own learning and school experience. The teacher guidance is organised, yet brief, and generally supports the pupil investigations, covering several issues. | Some judgement was applied to the selection of sources, analysis and evaluation generally link to the investigations. | Presentation and communication are appropriate for the audience. Investigations are neatly presented. Some awkward phrasing; weaknesses with complex language |
| E  35-39% | Investigations selected are generally appropriate. Little consideration of the levels of attainment or cross curricular issues. Little reference is made to own learning and school experience. The teacher guidance is brief and offers little support of the pupil investigations. | Limited sources have been selected. There was little analysis and evaluation linked to the investigations. | Presentation and communication of investigations and teachers’ guide are limited, with little thought of the audience. Inaccuracies interrupt communication. |
| F  35% | Some investigations selected are partly appropriate. Few issues considered. Limited reference is made to own learning and school experience. The teacher guidance offers limited support of the pupil investigations. | Very few sources have been selected / do not link to the investigations. | Presentation of investigations and teachers’ guide is inappropriate for the audience. Many inaccuracies impair communication. |