

**JOB DESCRIPTION**

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| **Job Title:** Research Associate in Volcanology | **Present Grade:** 6 or 7 |
| **Department/College:** Lancaster Environment Centre (LEC) | |
| **Directly responsible to:** Dr Thomas Jones (LEC) | |
| **Supervisory responsibility for:** n/a | |
| **Other contacts** | |
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| **Major Duties:**  The post-doctoral role will directly contribute to the UKRI funded project entitled “Flow and fragmentation of melts and magmas: developing a unified view through experimental, numerical and field investigations”. You will be working and based within Dr Jones’ research group at Lancaster University and will contribute to the laboratory and numerical objectives of the UKRI Future Leaders Fellowship awarded to Dr Jones.  For appointment at Grade 6 Post-Doctoral Researcher you will:   * Perform lab characterization of pyroclasts (e.g., grain size, shape, density). * Use these laboratory data in numerical models to invert for eruption conditions (e.g., plume height, mass eruption rate). * Run ash dispersion and probabilistic tephra fallout models with input parameters constrained by laboratory measurements. * Support the production of tephra hazard maps for some target mafic volcanoes. * Lead the analysis, interpretation, and integration of these new datasets. * Support the development of numerical conduit models, ideally this would involve taking a role in implementing field constraints into models (e.g., decompression rate, bubble number density). * Engage with all project partners and the wider research team. * Make results accessible and ultimately targeted to the needs of end users. * Lead the preparation and submission of journal papers for publication of project findings. * Participate in writing new research proposals that build on the expertise developed in this project. * Be an active and enthusiastic member of the (GFD) research group and the Lancaster Environment Centre and contribute regularly to relevant research seminars, lab management, and collaborative research activities. * Attend and present research and represent the interests of the research group and Lancaster University at major national and international conferences.   For appointment at Grade 7 Senior Post-Doctoral Researcher in addition to the Grade 6 list you will:   * Take a leading role in identifying funding opportunities and developing project proposals for future funding based on the research area and results of this project. * Any other duties appropriate to the grade, as directed by the Principal Investigator (Dr Jones). | |