Experiments in volcano-ice interaction were carried out to explain and quantify processes of heat transfer from magma to water and ice in phreatomagmatic and subglacial eruptions. Special emphasis was placed on laboratory experiments using re-melted rocks and ice. Settings studied so far are: (1) lava-ice contact where magma or hot rocks and ice have a common interface in a semi-static setting, a very common occurrence when lavas flow adjacent to ice, and (2) hot jets of steam or water impacting on ice, a useful analogue to energetic geothermal upwelling or fully subglacial volcanic eruptions. For the lava-ice contact a setup was built at the Volcanological Laboratory at the University of Würzburg where volcanic rock are heated up and melted for experiments. Experiments included pouring of melt over ice and by placing a block of ice on top of a batch of magma. Melting rates and temperatures at various parts of the system were measured as a function of time. At the University of Iceland a different setup was constructed, where steam and hot water is pumped from below onto a block of ice. The rate of melting and the volume and shape of cavity was studied. Measured parameters during these experiments are; temperature of water and ice, melting rate of ice, jet speed of injection and the amount of suspended material in water. The eruption in Eyjafjallajökull in spring 2010 involved magma fragmentation and flow of lava against ice; allowing comparison of our laboratory results with actual observations.