

**ZMATH 2010f.00244**

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**Preservice elementary teachers' knowledge of observable Moon phases and pattern of change in phases.**

J. Sci. Teacher Educ. 17, No. 2, 87-101 (2006).

The purpose of this study was to describe selected content knowledge held by 52 preservice elementary teachers about the observable phases of the moon and the monthly pattern of change in observable phases. Data were obtained from participants in a physics course before and after they received inquiry-based instruction designed to promote intentional learning of the cause of moon phases and the observable pattern of change in moon phases. Results indicated that, prior to instruction, most preservice teachers had major deficiencies in knowledge of observable moon phases and the pattern of monthly change in the phases. Fortunately, participants who completed the instruction were likely to show evidence of having addressed the deficiencies.

*Classification:* B52 M59

*Keywords:* preservice teacher education; future primary school teachers; inquiry-based instruction; teacher knowledge; physics; astronomy

doi:10.1007/s10972-006-9006-7