Patterns: A Cross-curricular Thematic Unit

Statement of Purpose

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Predictable patterns are an important component of learning in a kindergarten classroom. According to Maslow’s Hierarchy of Needs, safety (the feeling of security) is one of the basic needs that must be met before an individual can begin meaningful learning. A daily schedule and routine provide the structure that helps children understand what to expect and what is expected of them. The patterns of daily routines provide a framework within which students can perform without worrying about every little part of their day. As students notice, investigate and create patterns of their own, they begin to make connections between themselves and the world around them. Studies have shown that making connections is at the core of brain development, and that connection-making is an actual biological synaptic process that occurs between neurons in the brain (Ewell, 1997). Meta-cognition also develops as students connect and apply what they have learned in the past to their current learning. This is a process that continues throughout a lifetime of learning, but can be established with a purpose at an early age.

The ability to recognize patterns is an important developmental skill for learning math concepts. Extending and creating shape, color and number patterns gives students an opportunity to apply mathematical concepts and develop their own sense of understanding patterns and sequencing. Students explore and develop their artistic ability as they use color and shape to create works of art that reflect patterns they recognize. Students can appreciate balance and form through their exploration of materials and placement.

As students investigate their natural world, they begin to notice and appreciate the patterns of weather as the seasons change. They also notice and gain an appreciation for the patterns of symmetry (or asymmetry) they observe in living things. The concept of sequencing is reinforced as students learn to recite the days of the week and the months of the year, and gain an understanding of yesterday, today and tomorrow. Although kindergarten students are too young to understand historical patterns, they can begin to see annual patterns such as holidays and birthdays.

Predictable patterns can be used concretely throughout reading and writing activities using word families, poetry and pattern books. Students make connections for spelling and decoding as they practice rhyming words in word families and poems. The repeated sentence structure of pattern books provides support for independent reading as well as a model for students to create their own books.

The experience of music, movement and kinesthetic activities boost content area learning. Studies have suggested that singing, rhythm, and movement can be used to engage and enhance higher brain activities, and this can be achieved through establishing and reworking patterns and connections through kinesthetic movements that involve both sides of the brain.

True learning occurs when students make meaning for themselves, and a cross-curricular thematic unit helps all students learn in a variety of ways. Not every student will notice subtle patterns around them, however repeated exposure through a variety of lessons and activities will give each child the opportunity apply their knowledge and skills to future learning.

References

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