E1-26 Has mathematics lost touch with reality?

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Mathematics is accepted as a man-made system of knowledge. It differs from empirical sciences which try to understand the physical world. Compared with modern empirical sciences, mathematics has the ability to grow by itself as no previously derived theories are falsified when mathematics evolves. This is the salient contrast between the evolution of mathematics and empirical sciences. In view of the fact that mathematics is a subject that can stand on its own feet, it is generally felt that mathematics sometimes loses touch with the real world. In this paper we argue that despite the fact that mathematics possesses abstractness, it is still clearly associated with reality. We draw from the evolution of mathematics and explain how mathematical ideas are inspired by the physical world of reality. We argue that each abstract piece of mathematics has a nucleus that is sensitive to the real world which can be perceived by the human mind. Abstract mathematical theories, literally almost stumbled upon by creative mathematicians, find unexpected applications in empirical sciences. The ultimate clue to this circumstance may well lie in the mysterious relationship that seems to exist between the physical universe and the human mind which tries to understand it.