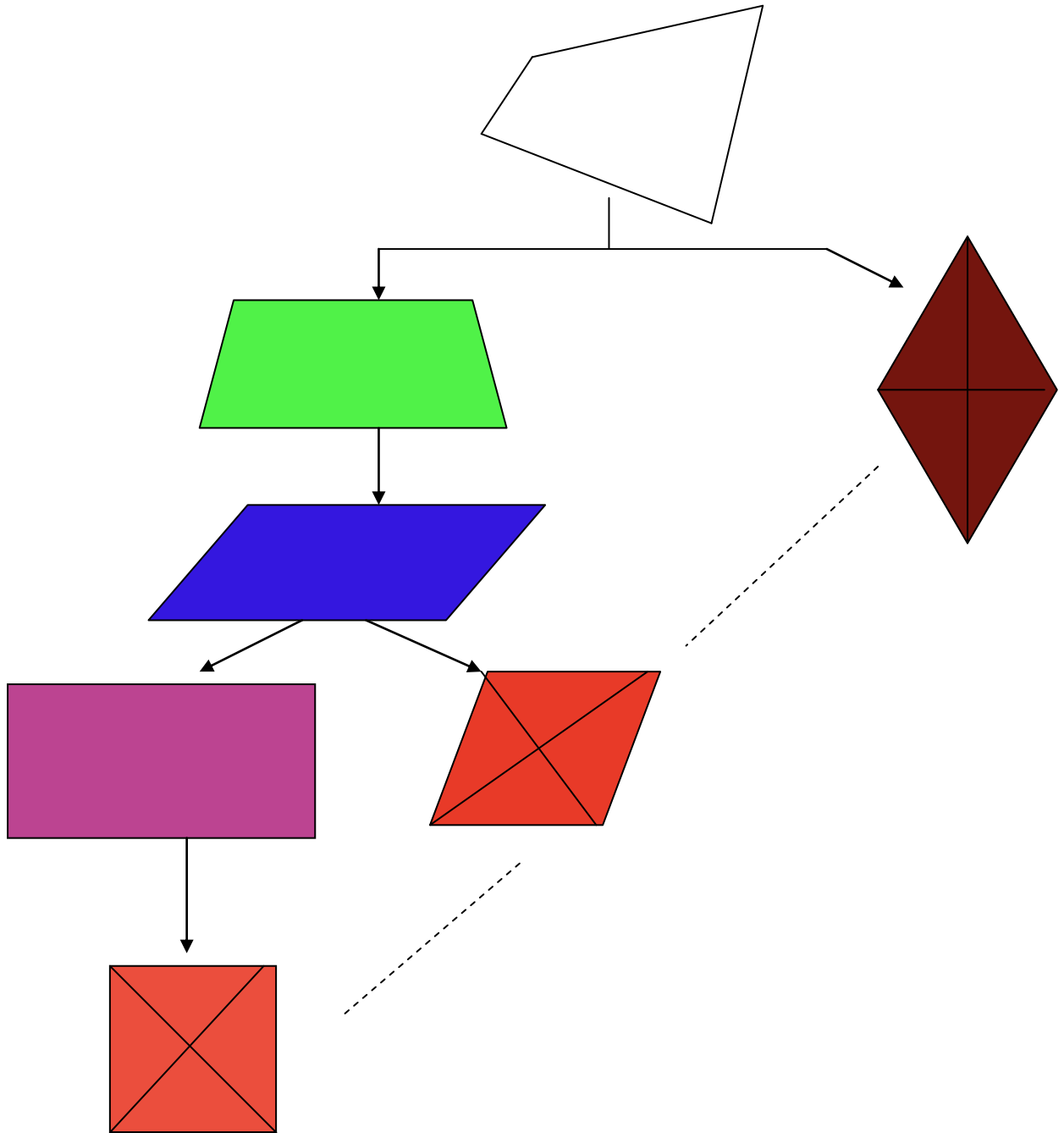


## Characteristics of Quadrilaterals

Once upon a time there was an old grandfather quadrilateral.



Lets look at him! Try to describe him! How many sides and angles has he got? The sum of the angles of a quadrilateral is  $360^{\circ}$ , as we already have learned. He has got two sons: Trapezius and Deltoid. Deltoid was a black ship in the fammily, and we'll discuse about him a little bit latter. As we already know genetics is a miracle! Every next generation has inherited

characteristics of their father. So, what characteristics have trapezoid and deltois got? (Children are answering.) But, every next generation is more successful than previous. Trapezoid is more advanced than his father. He acquired a new trait. Which one? Oh, look at those parallel sides! Aren't they nice? He also has a secret about his angles, but I'll tell you: the sum of the angles that lie on non-parallel sides is always  $180^{\circ}$ . Let's meet his son. It is Parallelogram. Look at that pretty boy? Can you see what is new about him? Yes, he's got two equal and parallel sides! Are there something interesting about his angles? ( Kids can find it successfully). He was much more advanced than his grandfather. He's got two sons: rectangle and rhombus. Have they the same characteristics as the elder member of the family? They prospered in large steps. Let's discuss about them. (I suggested to the children what is important to examine: sides, angles, diagonals, symmetry).

And finally, here it is! The perfect one: The Square! He's got everything as his father, grandfather and great-grandfather and much more. What you can tell me about him? (Kids are answering and discuss.)

And what about deltoid? He was on his hands and a very weird. He was completely different from the other family members. All of his cousins got at least one or even two parallel sides. But, oh no, not him! He hasn't got parallel sides, he has two identical pairs of neighboring sides! He was more interested in its inner space than exterior. He built normal diagonals, and this characteristic inherited rhombus and square.