

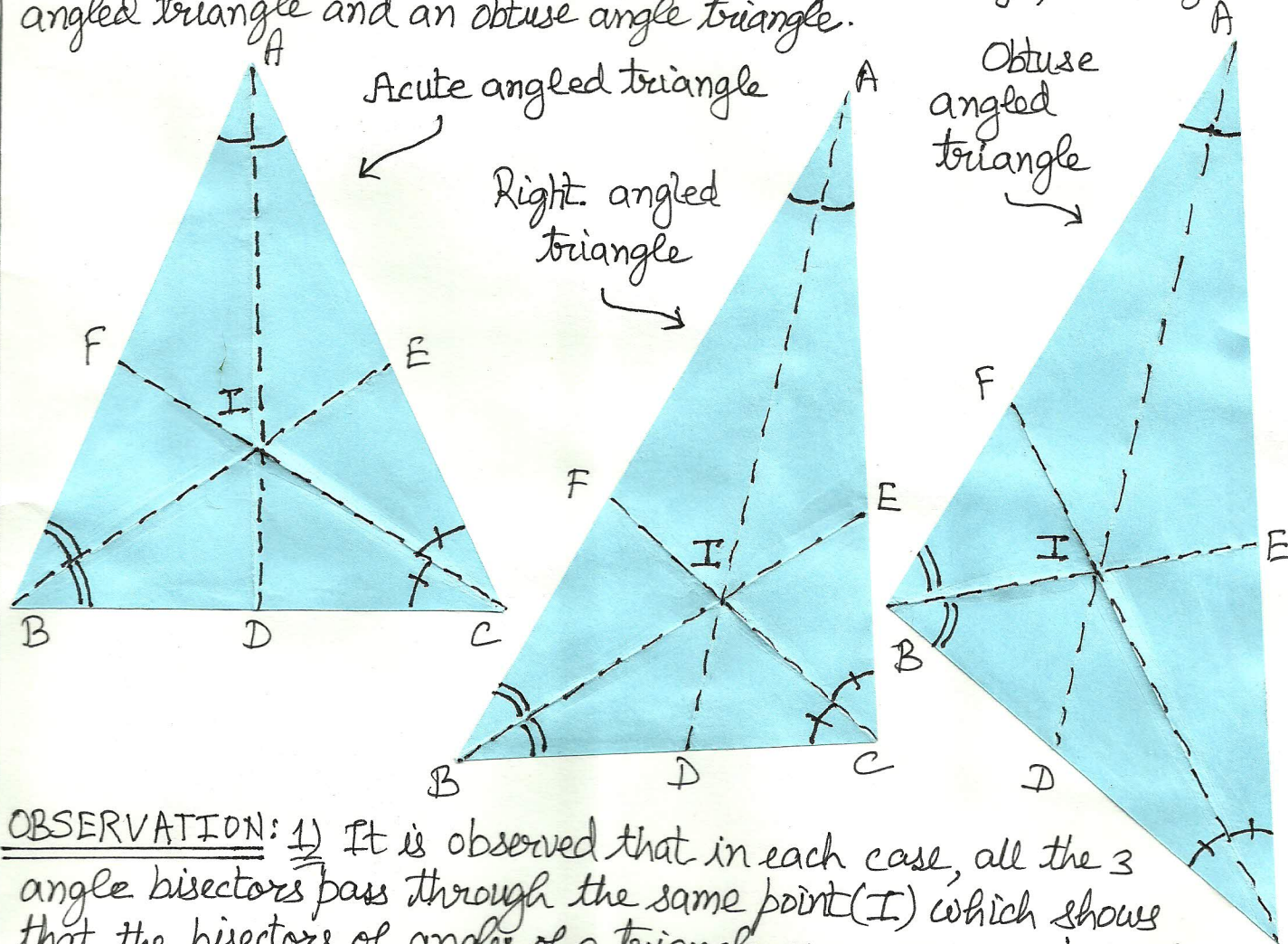
# CLASS: IX. MATH ACTIVITY NO.: 5. INCENTRE OF A TRIANGLE

**OBJECTIVE:** To illustrate that the bisectors of angles of a triangle are concurrent and the point of concurrency (Incentre) always lies inside the triangle.

**DESIGN AND OR APPROACH TO THE ACTIVITY:** the triangle.

**1)** Knowledge of different types of triangles. **2)** Concept of concurrent lines. **3)** Knowledge of obtaining the bisector of an angle by paper folding.

**PROCEDURE:** **1)** Take a coloured paper and cut an acute angled triangle ABC from this paper. **2)** Fold it along the vertex A such that AB coincides with AC. **3)** Now, press along the fold to form a crease. This crease represents the bisector of angle A. **4)** Similarly, obtain the creases representing the bisectors of angles B and C. **5)** Mark a line by a pen on these creases. **6)** Repeat the same activity for a right-angled triangle and an obtuse angle triangle.



**OBSERVATION:** **1)** It is observed that in each case, all the 3 angle bisectors pass through the same point (I) which shows that the bisectors of angles of a triangle are concurrent. **2)** The point of concurrency of the bisectors of the angles of the triangle (the incentre) always lies inside the triangle.