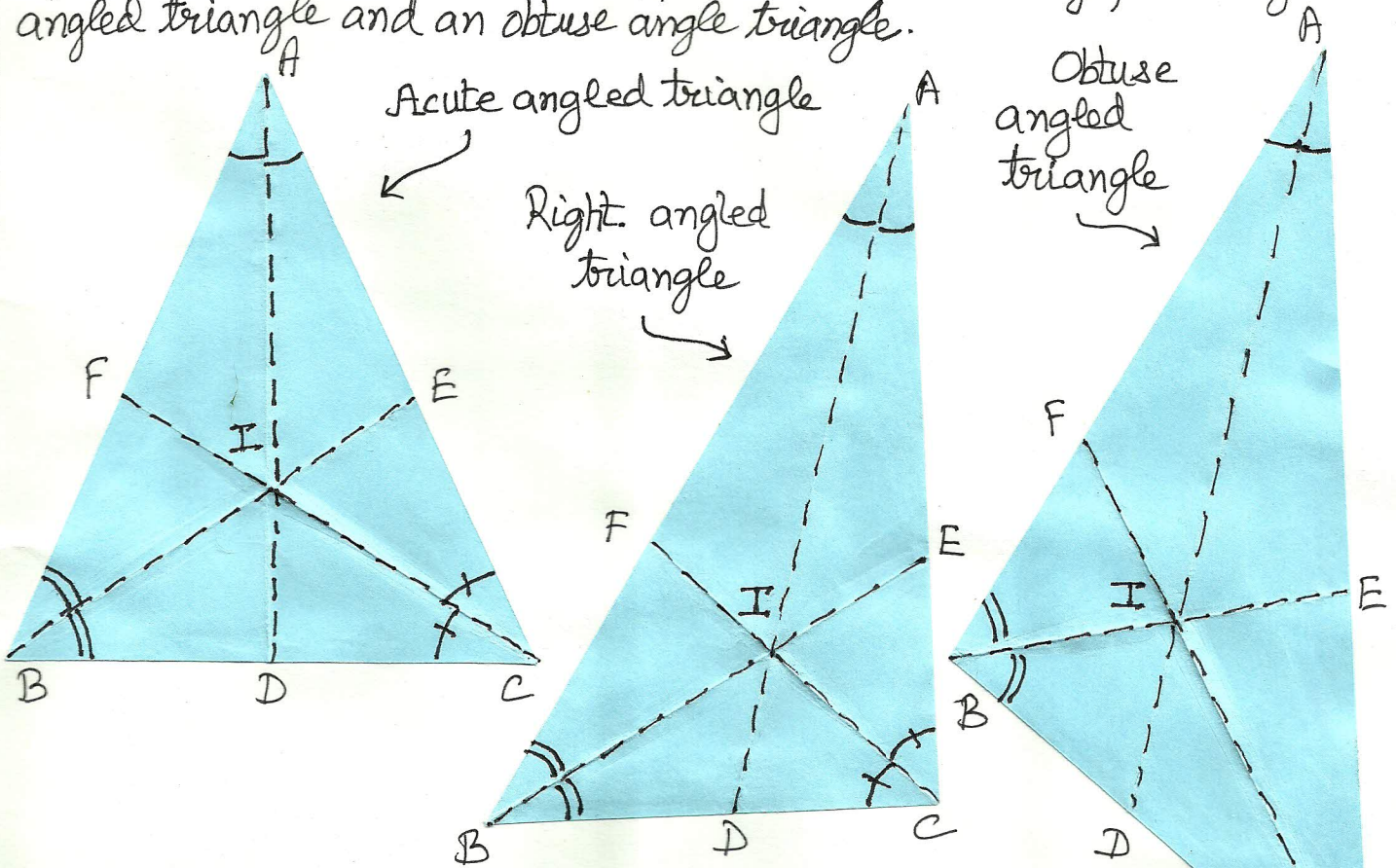
CLASS: IX. MATH ACTIVITY NO.: 5. INCENTRE OF A TRIANGLE

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: 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.