ASIAN INTERNATIONAL SCHOOL

SCHOLASTIC ACTIVITY PLANNING FOR THE SESSION 2025-26

MONTH: AUGUST **CLASS: 10** **SUBJECT: MATHEMATICS**

TITLE OF THE INNOVATIVE PRACTICE: To observe volumes of different solids
AREA OF THE INNOVATIVE PRACTICE:. Mensuration – Volumes occupied by different solids
OBJECTIVE OR REASON FOR SELECTION OF THIS PRACTICE/STRATEGY: This strategy is selected to provide students with a practical understanding of mensuration concepts. By observing and working with real models of cube, cuboid, cylinder and cone, students can internalize the principles of surface area and volume rather than just memorize formulae. It promotes experiential learning, logical reasoning, and active participation.To enhance conceptual clarity through hands-on experience and collaborative learning. This activity is designed to help students:

- Visually identify surface area and volume of different solids
- Understand the criteria for space occupied on the base and 2 dimensional and 3 dimensional
- Develop reasoning and proof-based thinking.
- Foster engagement and improve retention of volume concepts.

DESCRIPTION OF THE PRACTICE/STRATEGY USED:
Students will engage in a group-based, hands-on activity using different solids with different shapes and size. They will make solids of different shapes with different dimensions. Afterward, they'll classify the solids using the appropriate formulae, discuss their observations, and present their findings. The teacher facilitates the discussion, guiding students to reflect on their conclusions and connect them with theoretical principles. Students are grouped and provided with materials to construct solids like cube, cuboids, cylinder, cone and sphere. They will observe how volume can change with change in dimension also how 2 different solids may have same volume Each group presents their work, and the class discusses and reflects on the results. This fosters collaborative learning and deepens understanding through visual and hands-on methods.

Materials required:
- Geometry boxes (ruler, compass, protractor)
- Colored paper or cardstock
- Scissors and glue
- Chart paper
- Cardboard

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Instruction:

Divide the class into groups of 4–5 students.

 Assign different model making solids of different shapes tasks to each group using various sets of conditions.

 Ask them to cut and make solids of different dimensions

 Guide them to compare surface area and volumes of different solids.

 Each group fills in their worksheet and presents their conclusions to the class.

 Conclude the activity with a summary of learning outcomes and a question-answer session.

IMPACT OF THE PRACTICE ON THE TARGET GROUP:

Students developed better conceptual clarity of volume of different solids. They showed increased participation, improved collaboration skills, and enhanced critical thinking. The activity helped reduce fear of mensuration by making abstract concepts more concrete and engaging.

SCOPE OF FURTHER IMPROVEMENT:

 incorporating digital tools or mensuration software for comparison.

 Including real-life applications or architectural examples of different solids constructions used in infrastructure..

 Conducting a quiz or reflective writing post-activity to assess retention.

 Providing differentiated tasks to cater to varying ability levels.

ENDORSEMENT OF THE ORIGINAL WORK: Mr. Santanu Goswami