

Class: VII	Subject: Mathematics	Day:1	Time duration:40 min
Name of the lesson/ unit	Ch-15 Visualising Solid shapes		
Topic/lesson	Nets of 3-D shapes		
Learning Objective	- Students will be able to explore what are nets of solid shapes? - Students will be able to understand what is the difference between Oblique & isometric sketches? - How to visualize solid objects and also their hidden parts through different methods?		
Expected learning outcomes:	Students will be able to differentiate between 2D & 3D shapes and will be able to explore 3D shapes more closely.		
Common misconception (if any):	- Difference between length,breadth and height, - Orientation of a picture changes students view point about a shape - Difference between 2D shapes vs 3Dshapes.		
Prerequisite knowledge:	2D and 3D shapes		
Assessment of qualifying knowledge:	Quiz		
Transaction methodology			
Starter-Collaborative work – 5mins	Pair discussion: Pg 279 Do this in book.		
Direct Teaching -10mins	Solid figures are quite common in the environment around us. Mobile phones, Laptops, Computers etc are all examples of solid figures. Notice that they have length, breadth and height i.e. they are three-dimensional figures. A two-dimensional shape has length and width. A three-dimensional solid shape also has depth. Three-dimensional shapes, by their nature, have an inside and an outside, separated by a surface. All physical items, things you can touch, are three-dimensional. Some of the common solid shapes are Prisms, Pyramids, Cubes, Cones,		

Guided work-10 mins Independent work-10mins	Spheres and Cylinders.Video will be shown Students will do this as a group activity .EX-15.1 Q1.Each group will make a cut- out of a net to present it to the class to see viability of a 3D shape..Teacher will guide them. Students will then do book exercise .Teacher will then discuss it
Closure-5 mins Verbal	List examples from your surroundings that are 2D and 3D.
Home Learning	From book Assignment will be given
Resources	NCERT Book of Mathematics for Class VII Activity –Nets of cube,cuboid

Class: VII	Subject: Mathematics	Day:2	Time duration:40 min
Name of the lesson/ unit	Ch-15 Visualising Solid shapes		
Topic/lesson	- Drawing solid shapes on a flat surface. (a)Oblique sketch (b)Isometric sketch Nets of 3-D shapes		
Learning Objective	- Students will be able to explore what are nets of solid shapes? - Students will be able to understand what is the difference between Oblique & isometric sketches? - How to visualize solid objects and also their hidden parts through different methods?		
Expected learning outcomes:	- Students will be able to learn different techniques to draw Oblique sketch and Isometric sketch . - Students will be able to conclude that the measurements are of exact size in an isometric case which is not so in Oblique.		
Common misconception (if any):	- Difference between length,breadth and height, - Orientation of a picture changes students view point about a shape - Difference between 2D shapes vs 3Dshapes. - Differentiate b/w oblique and isometric sketch		
Prerequisite knowledge:	2D and 3D shapes		
Assessment of qualifying knowledge:	Quiz		
Transaction methodology			
Starter-By drawing 5 mins	Can you sketch shape of a cuboid? Use a graph sheet for your work Teacher to ask students to this in their Notebook.		
Direct Teaching followed by Demo by teacher -10mins	Teacher will show video to the students to introduce the topic and will collect the responses of the students from starter activity to describe how both the sketches are different to each other. Teacher will ask show how to make isometric sketch of cuboid made in starter.		

Guided work-10 mins	Book questions.
Independent work-10mins	Book questions
Closure-5 mins Noteboook(Recap)	Students will draw SAM(Map)Self assessment in their copy. • One thing that they understood_____ • One thing that they still want to know_____
Home Learning	From book Assignment will be given
Resources	NCERT Book of Mathematics for Class VII Teaching aids-3D solid shapes,Isometric sheet,graph sheet

Class: VII	Subject: Mathematics	Day:3	Time duration:40 min
Name of the lesson/ unit	Ch-15 Visualising Solid shapes		
Topic/lesson	Viewing different sections of a solid through-Cutting/slicing,shadow play and looking at it from different angles.		
Learning Objective	- Students will be able to explore what are nets of solid shapes? - Students will be able to understand what is the difference between Oblique & isometric sketches? - How to visualize solid objects and also their hidden parts through different methods?		
Expected learning outcomes:	Students will be able to investigate different sections of a solid through different methods.		
Common misconception (if any):	- Difference between length,breadth and height, - Orientation of a picture changes students view point about a shape		
Prerequisite knowledge:	2D and 3D shapes		
Assessment of qualifying knowledge:	Quiz		
Transaction methodology			
Starter-By drawing 5 mins	Take an apple and then make horizontal or vertical cuts. Observe and draw rough sketch of cross sections you made.Name them wherever you can.		
Direct Teaching -10mins	We must have all come across in our daily lives that all solid objects look different from different sides/angles. For example when you try to draw an object say a table; side view, front view and top view, all of them look entirely different. In this topic, we shall learn the different ways of looking at the solids.Teacher will show module to the students to introduce the topic and will collect the responses of the students from starter activity to describe .		
Guided work-10 mins	Students will do EX-15.4 as activity(using torch) .Also page 290 will be done by them.(book)		

Independent work- 10mins	Book questions.
Closure-5 mins Recap)	List down all the things that you have learnt in this chapter in your cw notebook. Discuss with your partner if he has learnt something other than you and also how he has learnt it?Students will draw SAM(Map)Self assessment in their copy. • One thing that they understood_____ • One thing that they still want to know_____ Make a content map of this chapter.
Home Learning	From book Assignment will be given
Resources	NCERT Book of Mathematics for Class VII Teaching aids-Apple,torch