UNIT 1, LESSON 13
FACE VALUE
SURFACE AREA WITHOUT A GRID

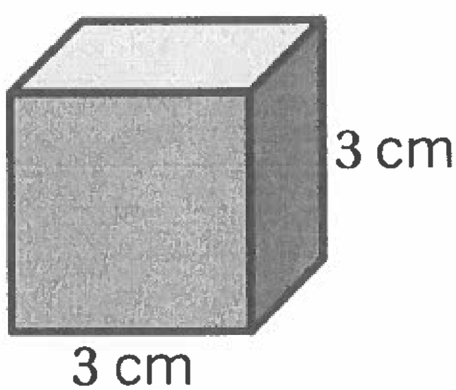
Goal (Essential Question)
How can you calculate **the surface area of a prism or pyramid using a** 3 **-** dimensional image **or a net** without **a grid?**

The surface area of any polyhedron **is the** total area **of all the** faces**. Drawing a** net **or** sketching **individual faces can help us make sense of and keep track of** calculations**.**

We can group identical **faces together to** reduce **the number of** steps **in our calculations.**

For example, a cube **is made of 6 identical faces, so we can determine the area of one** face **and multiply by** 6 **to determine the total surface area.**

Here's an example.



One Face
$3 \cdot 3 = 9$

All Faces
$9 \cdot 6 = 54$

Surface Area
54 square centimeters