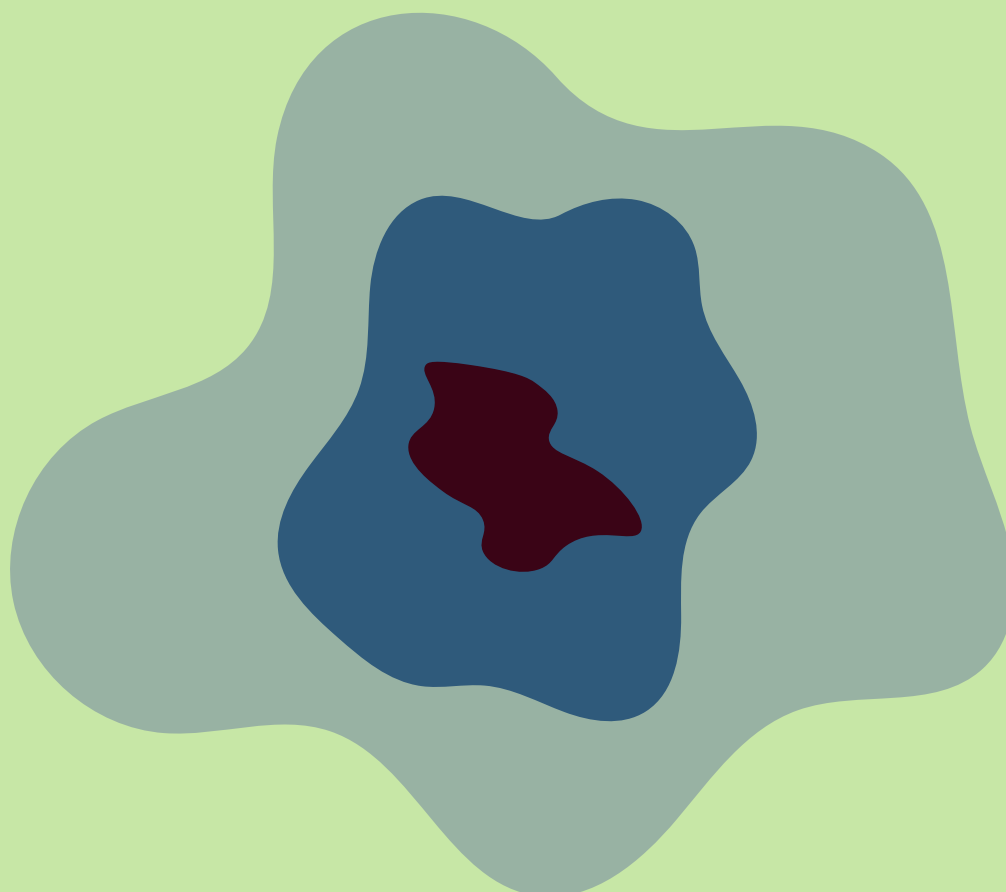


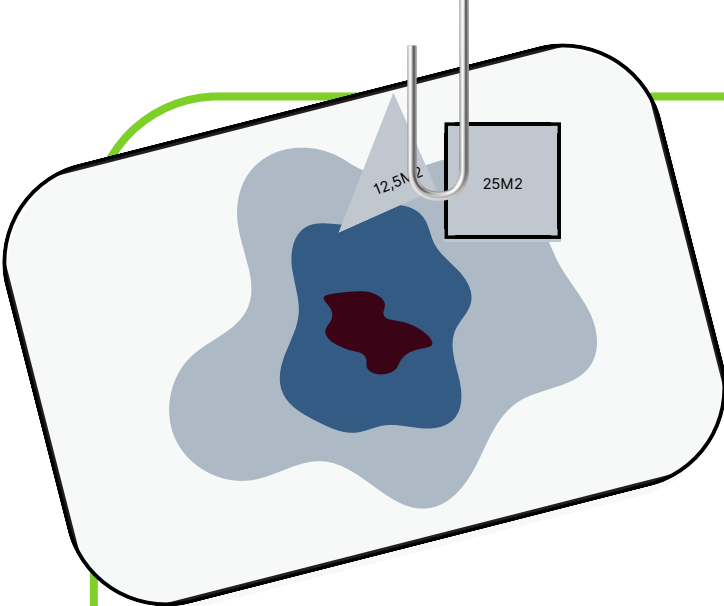
LEVEL 1



ACTIVITY 1

Oil spill estimates : Surfaces






Mission sheet: Oil spill estimates

Mission 1: Surface estimates


TOOLS

- The map of the oil spill
- Isabel's tools: surfaces
- Labelled tiles (grey squares and triangles)
- A calculator (optional)


TEAM ROLES

 Navigator: Helps the team decide together where to place the shapes.


Name: _____

 Counter: Keeps track of how many shapes are used.

Name: _____

 Recorder: Writes numbers, ideas, and reflections.

Name: _____

 Presenter: Shares the team's results with the class.

Name: _____

(All members use the shapes, the Navigator just makes sure everyone takes part!)

REFLECTION

Which shapes did you try first?

Did they fit well, or did you change your plan?

COUNTING THE SHAPES

How many squares and triangles
used in the dark zone?

Squares: ____ Triangles: ____

How many in the blue zone?

Squares: ____ Triangles: ____

How many in the grey zone?

Squares: ____ Triangles: ____

ESTIMATING THE SURFACE

HOW MANY SQUARE METRES IN DARK ZONE?

_____ m²

HOW MANY IN THE BLUE ZONE?

_____ m²

HOW MANY IN THE GREY ZONE?

_____ m²



OVERALL

HOW BIG DO YOU THINK THE OIL SPILL IS?

Overall surface: _____

REFLECTION

Which zone do you think is most dangerous for sea life and why?

METHOD

Was it easy to cover the spill with the shapes? What made it harder?
Did your team agree on the same strategy?
If not, how did you decide?

CLOSING REFLECTION

One thing I discovered...

One question I still have...

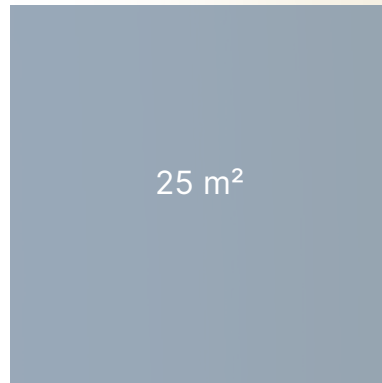
One idea from my teammate that helped us...

Isabel's tools: Surfaces!

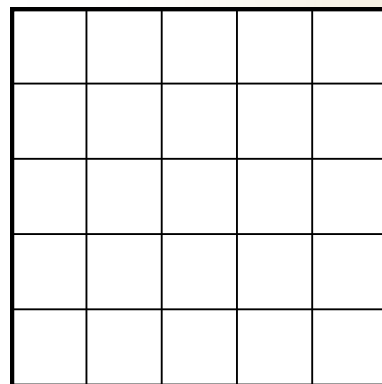
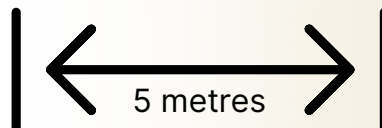
Look at these shapes:
Each square represents 25 m^2 : that's
like 25 small 1×1 metre squares



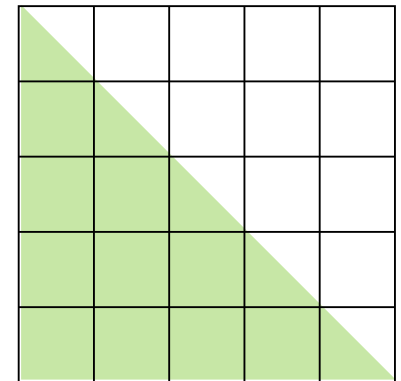
Imagine the floor tiles of
a small classroom!



25 m^2



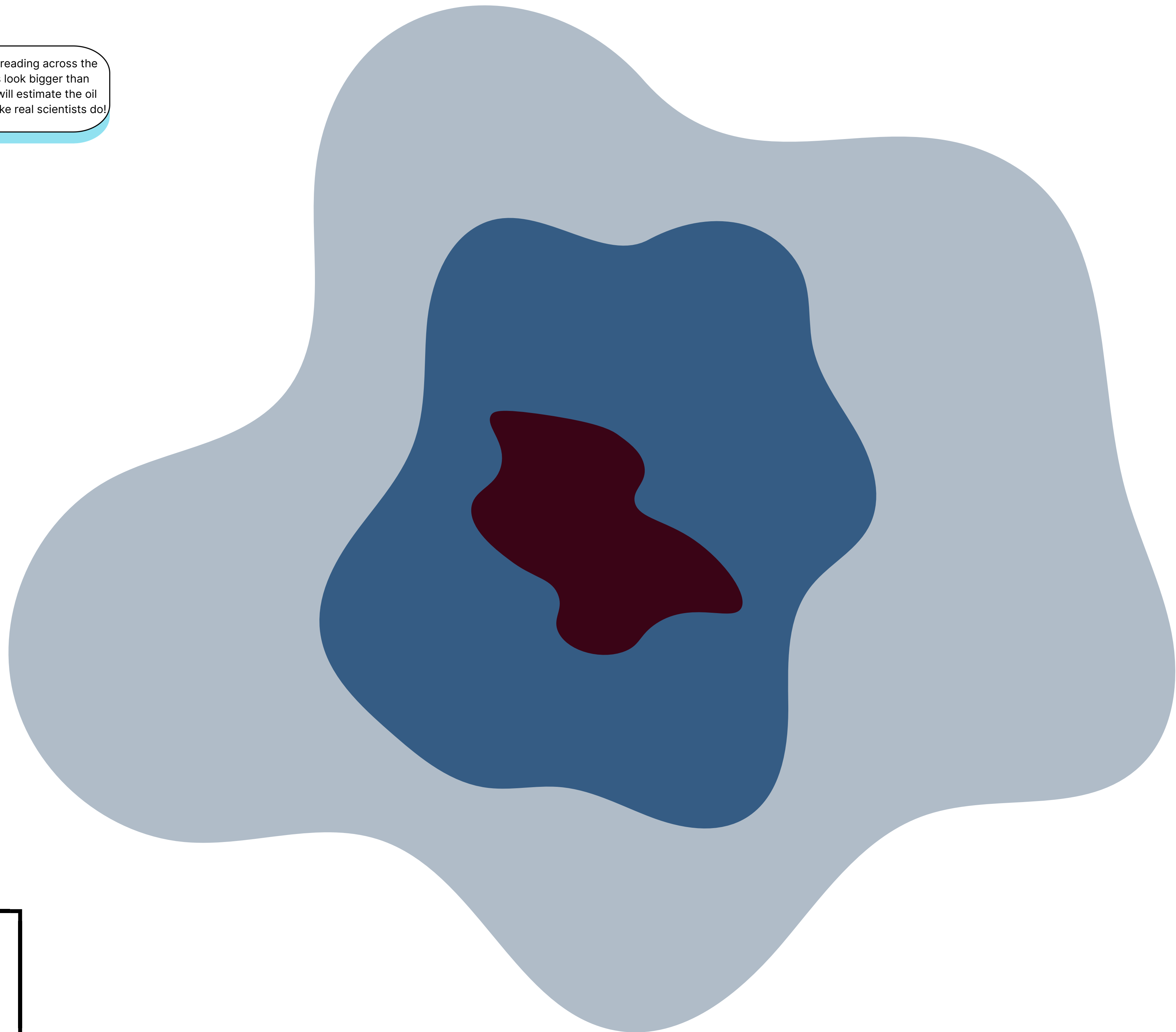
Each triangle is half of the square.
Its surface is $\frac{1}{2} \text{ m}^2$.



Your idea:
Can you think of another place or
space that might be about 25 m^2 ?

The labelled squares and triangles will help us calculate
how big the oil spill is! Let's work in teams to cover the spill
and estimate its surface!

A dark shape is spreading across the sea. Some zones look bigger than others. Our team will estimate the oil spill's surface, just like real scientists do!



25 m²



| | | | | |
|-------------------|-------------------|-------------------|-------------------|-------------------|
| 25 m ² | 25 m ² | 25 m ² | 25 m ² | 25 m ² |
| 25 m ² | 25 m ² | 25 m ² | 25 m ² | 25 m ² |
| 25 m ² | 25 m ² | 25 m ² | 25 m ² | 25 m ² |
| 25 m ² | 25 m ² | 25 m ² | 25 m ² | 25 m ² |



| | | | | |
|-----|-----|-----|-----|-----|
| 40L | 40L | 40L | 40L | 40L |
| 40L | 40L | 40L | 40L | 40L |
| 40L | 40L | 40L | 40L | 40L |
| 40L | 40L | 40L | 40L | 40L |

