Area

Resources:

Shady Shapes Handout | Area of a Rectangle Booklet |

Mini-whiteboards | pHet - Area Builder 1.1.20

Do Now: Shady Shapes

How many 1x1 squares are in each figure?

Extension:
Count ALL of the squares in each of the figures (eg. 1x1 squares AND 2x2 squares, 3x3 squares, etc.)

Mini whiteboards

Did anyone find a fast way to add up the number of squares?

Hint: We can use our timestables...

Learning Intention

Students will be able to Find the formula for the area of a rectangle. (VCMMG258).

Success Criteria

🌑 Level 1 - I can correctly solve 5 picture-based problems using the formula for the area of a rectangle. (Activity 1)
🌓 Level 2 - I can correctly solve 5 word-based problems using the formula for the area of a rectangle. (Activity 2)
🌕 Level 3 - I can correctly solve 5 compound area problems using the formula for the area of a rectangle.

Why do we need to know about area?

Some skills that require area

- Estimating amount of paint to cover a wall
- Carpet laying
- Roofing
- Turfing
- Mulching a garden

Any other examples can you think of?

Vocabulary

- *Dimension:* a measurement of a particular kind, such as width, or height.

- *Right-angle:* an angle of 90°, as in a corner of a square.

- *Perpendicular:* At an angle of 90° to.

- *Perimeter:* the boundary of a closed geometrical figure. (1D)

- *Area:* the size of a surface. (2D)

What is a rectangle?

Area of a Rectangle

$$Area_{rectangle} = width \times height$$

STEP 1 – Write down formula

STEP 2 – Substitute values and calculate area.

STEP 3 – Show your units.

End.

Compiling lesson using Marp in the Command Prompt:

```
cd C:\Users\Lochlan\Documents\GitHub\stemresources.github.io

SET markdownfile=[filename].md

# Convert slide deck into HTML
# npx @marp-team/marp-cli ECHO %markdownfile%
# npx @marp-team/marp-cli %markdownfile% -o output.html

# Convert slide deck into PDF
npx @marp-team/marp-cli %markdownfile% --pdf
npx @marp-team/marp-cli %markdownfile% -o output.pdf

# Convert slide deck into PowerPoint document (PPTX)
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# Watch mode
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# Server mode (Pass directory to serve)
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```