Slide 1
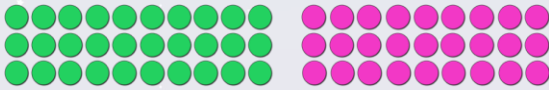
To be able to multiply using efficient mental strategies

MathShed

Starter:
What's the same? What's different?

Explain your answer.

Slide 2

To be able to multiply using efficient mental strategies

MathShed

Activity 1:
Solve the following calculations mentally, then state which method you used.

a) 15 x 8 =

b) 29 x 5 =

c) 24 x 5 =

d) 219 x 5 =

multiplying the nearest 10 and subtracting the difference method

partitioning then multiplying method

factorizing and multiplying method

doubling then halving method

multiplying by 10 and subtracting the difference method

Slide 3

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Activity 2:
Yasmin, Ruth and Jamal each choose one of the following numbers: 24, 48 and 49. They each multiply their 2-digit number by 5.

Yasmin says, "I multiplied 50 by 5, then subtracted a 5 from my result."
Ruth says, "I multiplied my number by 10, then halved the number 480."
Jamal says, "I multiplied 20 by 5, then multiplied 4 by 5 and added the two products together to make 120."

Which 2-digit number did each person have?
Which mental method did they use?
Explain your answer.

Slide 4

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Activity 3:
Which is the most efficient method to multiply a 1-digit number by 99?
Explain your answer.

Slide 5

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Activity 4:
James says, "I have calculated 19 x 5 by multiplying twenty by ten and then halving the result. 19 x 5 = 20 x 10 ÷ 2 = 200 ÷ 2 = 100."

Do you agree with James' strategy?
Explain your answer.

Slide 6

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Evaluation:

Multiplying by 10 and subtracting the difference is only efficient if you're multiplying a larger number by 9.

Do you agree?
Explain your answer.