Homework/Extension Step 3: Estimate and Approximate

National Curriculum Objectives:

Mathematics Year 5: (5C3) <u>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</u>

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

Developing Use the numbers provided to fill in the calculations using approximation. Using up to and including 4-digit numbers, rounding to the nearest 10, 100 or 1,000.

Expected Use the numbers provided to fill in the calculations using approximation. Using up to and including 5-digit numbers, rounding to the nearest 100, 1,000 or 10,000.

Greater Depth Use the numbers provided to fill in the calculations using approximation. Using up to and including 5-digit numbers, rounding to the nearest 100, 1,000 or 10,000. Numbers are used within the context of lengths.

Questions 2, 5 and 8 (Varied Fluency)

Developing Match the statements to the correct approximations. Using up to and including 4-digit numbers, rounding to the nearest 10, 100 or 1,000. Rounding whole numbers only.

Expected Match the statements to the correct approximations. Using numbers with 2 decimal places (rounding to the nearest whole) in the context of money.

Greater Depth Match the statements to the correct approximations. Using up to and including 5-digit numbers, rounding to the nearest 100, 1,000 or 10,000. Numbers are used within the context of lengths.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

Developing Estimate the answer to the given calculation. Find the approximate total for the calculation by rounding to the nearest 10 then to the nearest 100. Using up to and including 4-digit numbers.

Expected Estimate the answer to the given calculation. Find the approximate total for the calculation by rounding to the nearest 1,000 then to the nearest 10,000. Using up to and including 5-digit numbers.

Greater Depth Estimate the answer to the given calculation. Find the approximate total for the calculation by rounding to the nearest 1,000 then to the nearest 10,000. Using up to and including 5-digit numbers. Numbers are used within the context of lengths with mixed measurements.

More Year 5 Addition and Subtraction resources.

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Estimate and Approximate

1. Use the numbers to complete the sentences.				
	821	5,410	356 7,10	00
Α.	8,459	- 1,385	is approximately	
В.	5,772	-	is approximately	
c.		+ 1,146	is approximately	2,000



VF HW/Ext

2. Match the children's statements to the approximate amount of marbles each child has collected.



A

190 marbles



3000 marbles



600 marbles



VF HW/Ext

3. Estimate the answer to the calculation below.

$$1,562 + 924 = ?$$

Round each number to the nearest 10. What is the approximate answer?

Last year I got 964 marbles and this

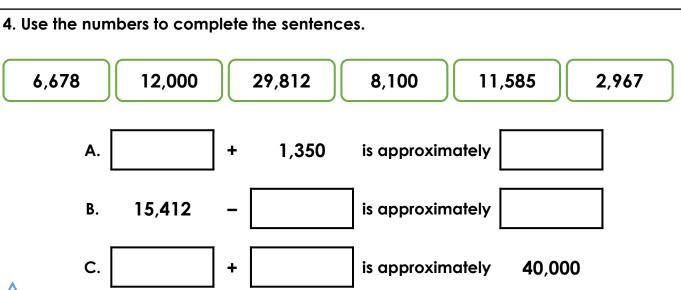
year I got 2,249 marbles.

If you round to the nearest 100, what is the difference between the two answers?



RPS HW/Ext

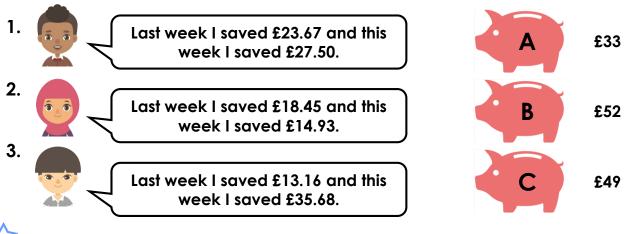
Estimate and Approximate





VF HW/Ext

5. Match the children's statements to the approximate amount of money each child has saved.





VF HW/Ext

6. Estimate the answers to the calculation below.

Round each number to the nearest 1,000. What is the approximate answer?

If you round to the nearest 10,000, what is the difference between the two answers?



RPS HW/Ext



Estimate and Approximate

7. Use the numbers to complete the sentences.

20,000m

48,392m

31,400m

6km

10km

12,153m

A. $\frac{1}{2}$ of $\boxed{ + 7,238m \text{ is approximately }}$

C. $\frac{1}{3}$ of 92,331m - is approximately



VF

8. Match the children's statements to the approximate perimeter length of each child's rectangle.

1.

Two sides of my rectangle are 3m and two sides are 627cm.

A 80,000m

2.

Two sides of my rectangle are 8,119m and two sides are 3km.

B 22,000m

3.

Two sides of my rectangle are 11,302m and two sides are 27,734m.

С

1,800cm



HW/Ext

9. Estimate the answers to the calculation below.

$$13,369m - 5\frac{3}{4}km = ?$$

Round each number to the nearest 1,000. What is the approximate answer?

If you round to the nearest 10,000, what is the difference between the two answers?



RPS HW/Ext

<u>Homework/Extension</u> Estimate and Approximate

Developing

1. A: 7,100; B: 356 and 5,410 or 5,410 and 356; C: 821

2. 1C, 2A, 3B

3. Accept an appropriate estimate.

1,560 + 920 = 2,480

1,600 + 900 = 2,500

The difference between the two answers is 20.

Expected

4. A: 6,678 and 8,100; B: 2,967 and 12,000 or 12,000 and 2,967; C: 29,812 and 11,585

5. 1B, 2A, 3C

6. Accept an appropriate estimate.

5,000 + 23,000 = 28,000

10,000 + 20,000 = 30,000

The difference between the two answers is 2,000.

Greater Depth

7. A: 48,392m and 31,400m; B: 12,153m and 6km; C: 10km and 20,000m

8. 1C, 2B, 3A

9. Accept an appropriate estimate.

13,000 - 6,000 = 7,000

10,000 - 10,000 = 0

The difference between the two answers is 7,000.

