Well Done to ….

Elsie
Harvey
Callum…

…. and Liam and Alfie O

Simple and Compound Interest

LO: To be able to calculate Simple and Compound Interest.

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1) What is Simple and Compound Interest?

2) How is Simple and Compound Interest Calculated?

3) Practise finding Simple and Compound Interest.

4) Thinking Question……..

5) Follow up work.

Interest

Going to the bank

You pay £100 into the bank.
They tell you that if you leave the money in the bank they will add to it.
They will give you 10% each year!
This is called interest.

Simple and Compound Interest

- There are two types of interest

SIMPLE and COMPOUND.

Simple Interest

Homer has 10% simple interest on his £200.
Each year he will get 10% of his £200. (£20)
Here's how the first 5 years look:

Start (year 0)= £200

+ £20

Year 1=   £220

+ £20

Year 2=   £240

+ £20

Year 3=   £260

+ £20

Year 4=   £280

+ £20

Year 5=   £300

Compound Interest

Professor Frink has 10% compound interest on his £200.
Each year the money in his account will increase by 10%
Here's how the first 5 years look:

Start (year 0)=   £200

$\times 1.1$

Year 1=   £220

$\times 1.1$

Year 2=   £242

$\times 1.1$

Year 3=   £266.20

$\times 1.1$

Year 4=   £292.82

$\times 1.1$

Year 5=   £322.10
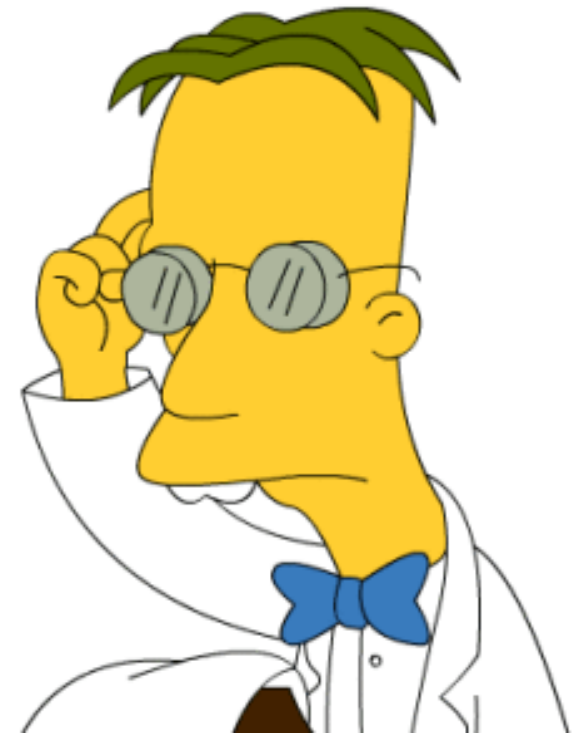
	Homer (simple)	Frink (compound)
Start (year 0)=	£200	£200
Year 1=	£220	£220
Year 2=	£240	£242
Year 3=	£260	£266.20
Year 4=	£280	£292.82
Year 5=	£300	£322.10

Simple Interest with a Calculator

Bart invests £300 with a simple interest of 12%

Work out 12% of £300

£300 x 0.12 = £36

Calculator	Phone
Enter 300

Press =

Press ANS + 36

Every time you press = it will be like another year has gone by.

Try pressing '=' 6 times

You should get £516 | Enter 300 + 36

Every time you press '=' it will be like another year has gone by.

Try pressing '=' 6 times. You should get £516 |
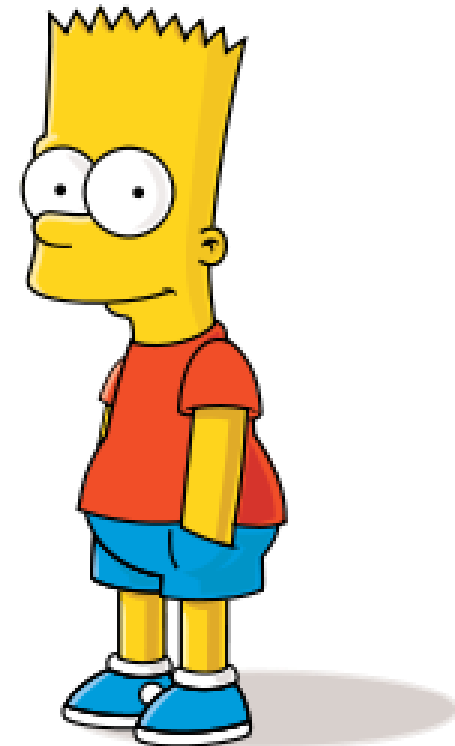
LO: To be able to calculate Simple and Compound Interest.

1) How much money will I have in the bank if I..

a) Invest £240, for 6 years with a Simple Interest rate of 15%? £456

b) Invest £5200, for 3 years with a Simple Interest rate of 6% £6136

c) Invest £4500, for 5 years with a Simple Interest rate of 12.5% £7312.50

2) How much interest would I have earned in 3 years, on a £2300 investment, with
    6.7% Simple interest rate?

£462.30

Calculator	Phone
Enter 300	Enter 300 + 36
Press =	Every time you press '=' it will be like another year has gone by.
Press ANS + 36	
Every time you press = it will be like another year has gone by.	Try pressing '=' 6 times. You should get £516
Try pressing '=' 6 times	
You should get £516	

Compound Interest with a Calculator

Martin invests £300 with a compound interest of 3%

Work out the multiplier for a 3% increase

100% + 3%= 103% - Multiplier is 1.03

Calculator	Phone
Enter 300 Press = Press ANS x 1.03 Every time you press = it will be like another year has gone by. Try pressing '=' 6 times You should get £358.22	Enter 300 x1.03 Every time you press '=' it will be like another year has gone by. Try pressing '=' 6 times. You should get £358.22

LO: To be able to calculate Simple and Compound Interest.

1) How much money will I have in the bank if I..

a) Invest £240, for 6 years with a Compound Interest rate of 15%? £555.14

b) Invest £5200, for 3 years with a Compound Interest rate of 6%

£6193.28

c) Invest £4500, for 5 years with a Compound Interest rate of 12.5%

£8109.15

2) How much interest would I have earned in 3 years, on a £2300 investment, with 6.7% Compound interest rate?

£493.97

Calculator	Phone
Enter 300	Enter 300 x1.03
Press =	
Press ANS x 1.03	Every time you press '=' it will be like another year has gone by.
Every time you press = it will be like another year has gone by.	
Try pressing '=' 6 times	Try pressing '=' 6 times. You should get £358.22
You should get £358.22	

Questions

1. Alan buys a car for £3500, each year the car looses 15% of its value, how much is it worth after 6 years?

2. Jane invests £500 with a 4% compound interest for 7 years. Sinead invests £400 with a 10% simple interest for 10 years. Who is better off?
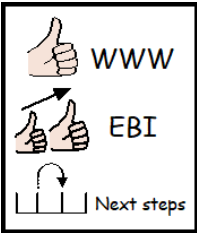
LO: To be able to calculate Simple and Compound Interest.

Follow up work

1)   Interest Worksheets.

2)   Mrs Gould's Lottery win.

3)   Catch up sheets – Scale Drawing & Prime Numbers

4)   Mymaths Simple Interest

5)   Mymaths Compound Interest