

This game is played using the OCTAQUIZ board (see rules of OCTAQUIZ).

Players can either be arranged in teams or as individuals depending on the time available and the nature of the pupils.

The game takes about 45 minutes to complete. However, the format is flexible and the game can be shortened to fit the time available.

Since the bank of questions is substantial (there are about 50 questions in each category) the game can be played more than once by any group. It can therefore be used in maths clubs, homework clubs or in registration as part of a whole school numeracy/functional skills program as well as in ordinary maths lessons. The rules are simple, so it is easy for pupils to play without teacher intervention after playing the game once.

The mathematical skills needed are the basic percentage skills which pupils are expected to perform without a calculator. For example, 50%, 25%, 10%, 20%, and 30% of any quantity as well as 15% and 5%. There will also be questions where the percentages are more complex but the quantity is easier, for example 4% of 200 or 7% of 600.

The context of the game is borrowing from and saving in the bank and buying goods using monthly repayment deals. Emphasis is given to interest rates and attention is drawn to the fact that customers pay less if they pay immediately.

Compound interest is mentioned in the hints given to pupils but they only calculate simple interest during the game. The teacher should draw attention to this fact and (s)he may wish to develop this skill after the game has been played.

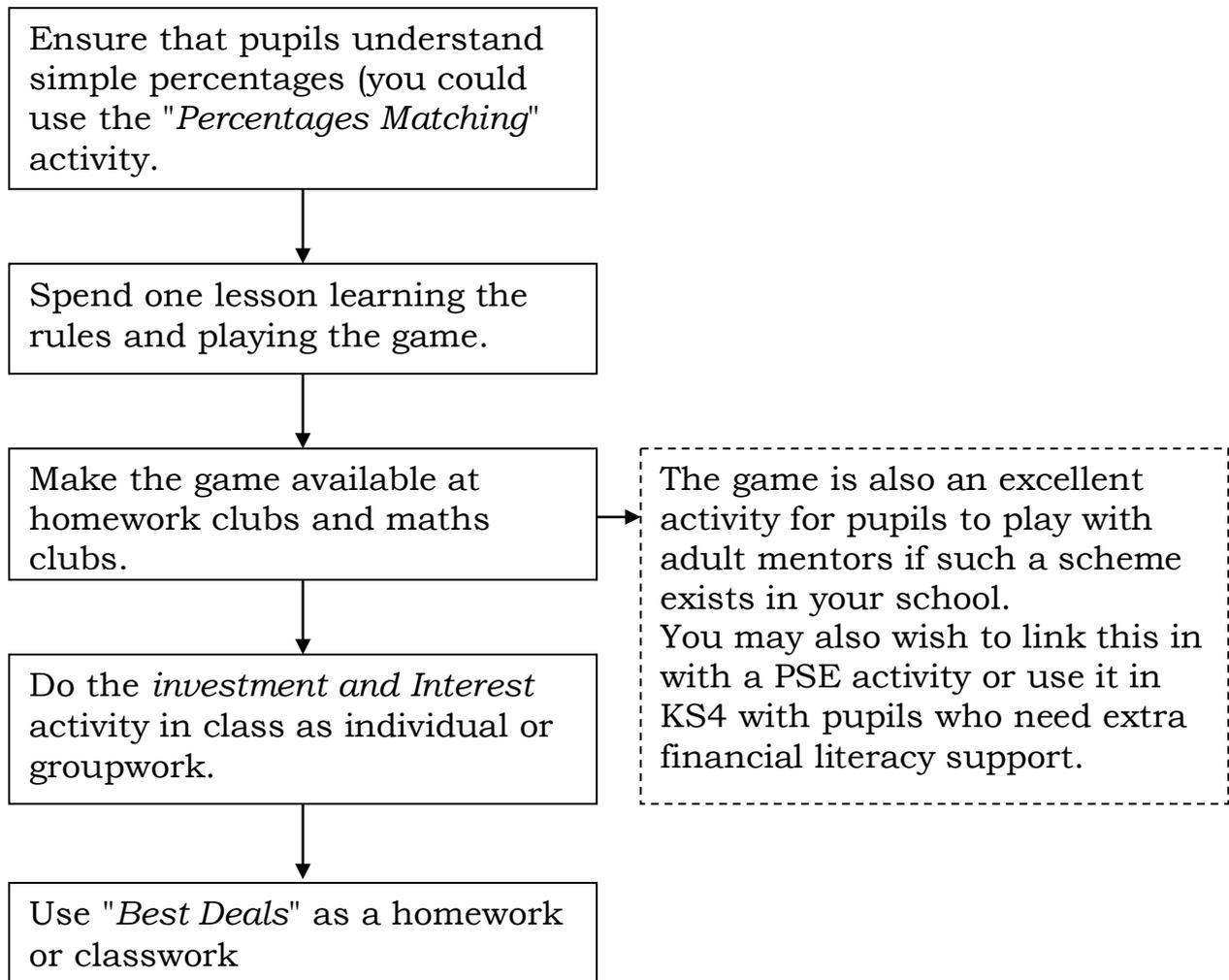
During the game, pupils should be encouraged to play quickly. This will improve their mental number skills and will sustain their interest by ensuring that their turn comes round sooner!

There are three activities that accompany the game:

- The first is a card sorting activities that consolidates the calculation of percentages. It is up to the teacher whether this is done before playing the game, so that the pupils are reminded of the skills involved, or after the game, so that the skills used during the game are consolidated.
- The second activity is also a card sorting game but it refers directly to the calculation of interest and should therefore be done after the game.
- The third activity could be a homework or class activity that assesses whether the pupil has understood the concepts encountered during the game.

Incorporating Save and Borrow into your scheme of work

Example



The statements below are extracted from the DFES guidance for schools regarding *financial capability through personal finance education* and are matched to the Octaquiz Save and Borrow game.

"During key stage 3, pupils learn about what influences how we spend or save money and how to become competent at managing personal money in a range of situations including those beyond their immediate experience."

"They learn to solve complex numerical problems involving money including calculating percentages, ratio and proportion."

"During key stage 4, pupils learn about financial decision-making and money management and to use a range of financial tools and services, including budgeting and saving, in managing personal money."

"They learn about the different risk and return involved in savings and investment".

Matching Percentages

Save and Borrow

Cut out the cards and match them together in pairs

10% of 56	15% of £40	£5.20	£5.05
20% of £29	25% of £20.20	£5.60	£6.00
30% of £18	15% of £50	£5.40	£4.65
10% of £59	75% of £6.20	£5.80	£7.50
20% of £26	25% of £19	£5.70	£4.75
30% of £19	75% of £8.20	£5.50	£4.50
5% of £110	5% of £90	£5.90	£6.15

Investment and Interest

Save and Borrow

Cut out the cards and sort them into groups of three.

Invest £200 at 4% interest	Interest gained £4	Total in account £104
Invest £100 at 4% interest	Interest gained £8	Total in account £260
Invest £250 at 4% interest	Interest gained £18	Total in account £208
Invest £600 at 3% interest	Interest gained £15	Total in account £53.50
Invest £300 at 5% interest	Interest gained £10	Total in account £211
Invest £200 at 5.5% interest	Interest gained £3.50	Total in account £315
Invest £50 at 7% interest	Interest gained £11	Total in account £618

Best Deals

Save and Borrow

- 1 Put these deals for buying a cooker in order from the cheapest to the most expensive.

Pay 12 monthly payments of £50

Pay £200 now and then pay 12 monthly payments of £40

Pay 6 monthly payments of £99

Pay £100 now and then pay 24 monthly payments of £20

- 2 Who gives the best interest rate? Place these four bank deals in order.

800 pounds invested for 1 year yields £48 interest

300 pounds invested for 4 years yields £48 interest

200 pounds invested for 3 years yields £42 interest

400 pounds invested for 2 years yields £40 interest

- 3 Who pays their loan off quickest? Put these loans in order.

£1000 paid off at £25 a month

£840 paid off at £20 a month

£1800 paid off at £40 a month

£8000 paid off at £50 a week