

Overview

Piggy Pennies offers a variety of activities to support learning around money and savings. It combines the augmented reality app with traditional printed games so that you can plan for several groups of children.

Why is financial education important?

In these uncertain economic times, financial education has never been more important. With credit cards, direct debits, internet shopping and an increasingly cashless monetary system, it's all the more easy for young people to lose track of their spending.

We are living longer and can no longer rely on a state pension, so, the need to plan for the future grows ever greater. Learning about global finance helps children become responsible and ethical global citizens.

Teaching Money

Money is an important topic for children to understand but it can also serve as a great tool for assessing and developing a wide range of number skills.

Through coin counting, you are giving children a context for counting in multiples. Small coins give you an opportunity to consolidate number bonds. Multiples of 10 are being used frequently so there are lots of opportunities to discuss mental maths strategies.

Once you introduce decimal recording of prices, you can investigate how the place value system is used and the value and place of the digits.

Use this topic as a way to plan and assess other learning objectives as your pupils will be applying their estimation, calculation and number sense skills through all their work in this area.

Curriculum Links

Nationwide Education's Financial Capability programme links directly to curriculum guidance on the teaching of money and personal finance in:

- **Scotland** – First level Money outcomes and experiences for Curriculum for Excellence Mathematics and Numeracy.
- **England** – the money objectives from within the Measurement sections in Year 2 to Year 4 of the revised National Curriculum for Maths.
- **Northern Ireland** – Key Stage 1 Money learning objectives.
- **Wales** – Year 2 'Manage Money' objectives from the Foundation phase and Year 3 and 4 'Manage Money' objectives from Key Stage 2.

About Nationwide Education

Nationwide, as the world's largest building society, is keen to help build better life skills for better futures and as such are proud to present this interactive teaching resource. It tackles the areas of financial understanding, financial competence and financial responsibility.

Nationwide Education is part of Nationwide's commitment to the community. It is primarily a web-based programme designed for use online and making the most of the available devices for example, tablets, mobile phones and interactive whiteboards at schools, colleges and youth centres.

It's designed to be fun, informative and above all, engaging whilst providing valuable information, hints and tips. We trust you and your students will enjoy using the interactive games and use the downloadable activities to further their understanding about personal finance and how important it is in their daily lives.

This is part of a range of financial educational resources which are available at www.nationwideeducation.co.uk

Using the app

Setting up

You need to download the app onto your chosen device and print a set of cards. The cards can be found at: www.nationwideeducation.co.uk/piggy-pennies and can be accessed through a link in the app – see below.

The coin cards are used in levels 1 to 3 and the chore cards are used in level 4.



Welcome Screens

When the children play the game, they collect coins as they complete each question. If a child has played the game and earned coins, they can stop and go back into the game and the coins are still there.

In the top right corner of the welcome page, there is an icon. 

If you click on this, it will take you to the reset screen. This reset button will clear any coins which have been earned by a previous player so it is ready for a new player.

Click the 'Let's Play' link to go to the next screen which has a welcome message.

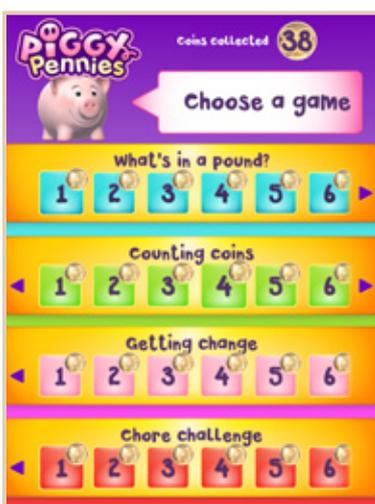
Question Selection Screen

This screen shows all the possible questions organised into four levels which each have a different colour. The questions get harder as you travel through each level.

Arrows move the question numbers along. You can choose up to 10 questions per level. The questions can be played in any order however we recommend that children start with question 1 as they increase in difficulty to 10.

The number of coins collected is shown at the top of the screen (this can be cleared between different players – see above).

You can touch the pig image in the top left hand corner at any time to return to the welcome screen.



Completing the Questions

Once the children select a question, the question is shown on the screen. The children select the cards which show the answer and click continue. They hold the camera towards the cards. It works best if they are close together but not overlapping on a flat surface. Better still use the card placement guide. If the correct cards are scanned, it moves to the next screen where there is a green tick and an animation of the coin going into the piggy bank. If not, it asks them to try again. They can try as many times as they like. In the top left corner, there is an icon which will take them back to the question screen at any time ().

There is an instruction page which can be printed and displayed next to the mobile device for the children.

Level 1 - What's in a pound?

Question 1 looks at how many of each type of coin is in £1. This is a useful question for all children to complete as it gives them practise at choosing and scanning the coins before moving on to more challenging questions.

In question 1 when you click on continue, this will bring up a screen with the link to the accompanying cards. You need to print out a set of the cards which can also be found at www.nationwideeducation.co.uk/piggy-pennies.

The rest of the questions within this level are based around making the total of a pound from a given amount.

Questions 2 to 6 ask them to use several of the same coin to answer a question. In questions 7 to 10 the children can use any of the coin cards but are asked to answer using the smallest number of coins to reach £1.

Level 1 Questions

1. Scan each type of coin to see how many there are in a coin.
2. You have saved 96p and a toy dinosaur costs £1. How many 2p coins do you need to reach £1?
3. A box of Lego costs £1 and you have saved 97p. How many 1p coins do you need to reach £1?
4. A pen costs £1 and you have saved 70p. How many 10p coins do you need to reach £1?
5. A toy car costs £1 and you have saved 85p. How many 5p coins do you need to reach £1?
6. A comic costs £1 and you have saved 40p. How many 20p coins do you need to reach £1?
7. A sticker book costs £1 and you have 82p. Choose the smallest number of coins you could use to reach £1.
8. A book costs £1 and you have 71p. Choose the smallest number of coins you could use to reach £1.
9. A torch costs £1 and you have 42p. Choose the smallest number of coins you could use to reach £1.
10. A pencil case costs £1 and you have 8p. Choose the smallest number of coins you could use to reach £1.

Level 2 - Counting coins

In this level, the focus is on making different totals using the coin cards.

In questions 1 to 3, they are given a total and it specifies the coins they use to pay. In questions 4 to 6, the questions specify which coins are used in the answer. As in the previous level, the focus then changes to selecting the lowest coins possible for questions 7 to 10.

Level 1 Questions

1. You buy a birthday badge which costs 30p. Pay using only 10p coins.
2. You buy a balloon which costs 60p. Pay using only 20p coins.
3. You buy a cake which costs £1.50. Pay using only 50p coins.
4. You buy some chocolates which cost 90p. Pay with both 50p and 20p coins.
5. You buy a plant which costs £2.15. Pay with both £2 and 5p coins.
6. You buy a bunch of flowers which cost £4.40. Pay with both £2 and 20p coins.
7. You owe your brother 45p. Pick the fewest number of coins you can to pay him.
8. You owe your friend Sarah £1.25. Pick the fewest number of coins you can to pay her.
9. You owe your friend Jack 59p. Pick the fewest number of coins you can to pay him.
10. You owe the dinner lady £2.23. Pick the fewest number of coins you can to pay her.

Level 3 - Getting Change

This level, as the name suggests, shifts the focus on to working out change in the context of shopping.

Questions 1 and 2 specify the coins they are given in their change to practise counting on the steps of the same size. Questions 3 to 10 are more challenging as they specify which coins are given in change.

Level 3 Questions

1. You pay 80p for a toy dinosaur which costs 74p. Show your change if you are given only 2p coins.
2. You pay £1.50 for a sticker book which costs £1.30. Show your change if you are given only 10p coins.
3. You pay £3 for chocolates which cost £2.84. Show your change if you are given both 2p and 10p coins.
4. You pay £4 for a fruit basket which costs £2.80. Show your change if you are given both 20p and 50p coins.
5. You pay 50p for a pencil which costs 27p. Show your change using the fewest number of coins possible.
6. You pay £1.50 for a book which costs £1.25. Show your change using the fewest number of coins possible.
7. You pay £1 for a pen which costs 67p. Show your change using the fewest number of coins possible.
8. You pay £2 for a ruler which costs £1.42. Show your change using the fewest number of coins possible.
9. You pay £2 for a rubber which costs 43p. Show your change using the fewest number of coins possible.
10. You pay £4 for a pencil case which costs £3.74. Show your change using the fewest number of coins possible.

Level 4 - Chore Challenge

For this level, you need the chore cards which are available in a link in the screen after question 1. Also available at www.nationwideeducation.co.uk/piggy-pennies.

This level focuses on money calculations using amounts which can be earned through doing chores at home. The children have to work out which chores they can do to reach a target amount. The cards are scanned as in previous levels and this triggers an animation of the chore being completed.

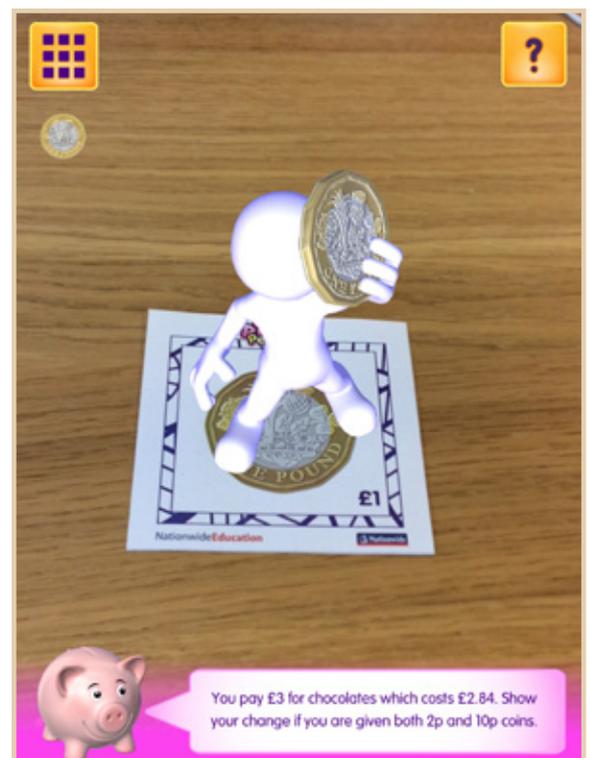
The wording of the questions is more complex than previous levels. They have to first work out the amount which has been earned and then find the corresponding chore cards. The first three questions have one chore only but then they move onto finding a combination of two chores.

Level 3 Questions

1. Jack has 50p and wants a comic which costs £1. Choose one chore he could do to reach exactly £1.
2. Sam has saved 60p. He does one chore and now has £3. Which chore did he complete?
3. Tom had £4.20 in his piggy bank. He completes one chore and now has £6. Which chore did he complete?
4. Which chore could Debbie complete twice to earn exactly £4?
5. Which two chores earned Debbie £3.90?
6. Becky chose two different chores and earned £3.20. Which two chores did she complete?
7. Tom has £7.50 and wants to save £10. Which two chores could he complete to make the exact target of £10?
8. Alison had £12 in her piggy bank. She completes two chores and now has £16.30. Which two chores did she complete?
9. Adam has £6.10 and wants to earn £10 to buy a book. Which two chores could he complete to reach exactly £10?
10. Peter had £8.20. He has been busy with two chores and now has £12 in his piggy bank. What did he complete?

How to play

- Sort the cards into piles. Make a pile for each type of coin and then a pile for the chore cards.
- Look at the selection screen. In the top right corner, you will see how many coins you have earned so far.
- Choose a question from the selection screen.
- Read the question on the screen.
- Look at the cards and pick the ones you think show the answer.
- Place the cards flat on a surface in front of you. Place them close together so the camera can see all the cards at once or better still use the 'card placement guide'.
- Once you click the 'Continue' button, the question is at the bottom of the screen and the rest of the screen shows your camera.
- Hold the camera as steady as you can and point it towards the cards.
- You will see the animations pop up on top of the card and a coin image will show at the side of the screen.
- If you have the correct answer, a green tick will appear and you will see your coin go into the piggy bank.
- If you do not have the correct answer, you will see the message 'Try Again'. You can change the coin cards and try as many times as you like to get the question right.
- When you get a correct answer, you will go back to the selection screen.
- Choose the next question and repeat.
- If you want to change to a different question, you can click this icon in the top right hand corner of the screen and this will take you back to the selection screen.



How many coins can you earn?

Printable Resources

Piggy Pennies is based around an augmented reality app and comes with a range of printable resources to complement it. This means you can plan a range of experiences to meet the needs of your children and get around having limited technology available in your classroom if that's the case.

There are various resources available to print with ideas of how to use them. We've designed them to be flexible and open-ended so that you and your learners can come up with more ways to play and explore.

As curriculum expectations vary across the UK, we've rated these resources with stars to indicate the level of challenge rather than labelling them with year groups. This allows you to look at the resources and use your judgement as to the level of challenge suitable for your classes.

The resources use the same formatting and design for all levels so you can subtly mix and match them to suit the needs of your children. The app focuses on money calculations, however in the printable resources, 1 star activities focus on coin recognition only as you may have children who require consolidation of this skill before moving on to money calculations.

When learning about money, children should have hands-on experience of real coins where possible or play money if that's more suitable. Throughout the lesson ideas, the app Coin Cards are frequently mentioned, however you may want to substitute or complement them with hands-on coins where appropriate. The Coin Cards are useful as you can print as many sets as you wish where as you may not have enough real or play coins for several groups.

Types of resource

Coin Cards and Chore Cards

These are used with the app and also for the printable activities.

If you feel you'll be using them regularly, it might be worth printing them on to card and laminating them.

Lesson ideas

A few ideas which can be used or adapted as part of your teacher-led activities within a lesson.

Task cards

There are 32 A5 task cards with instructions for games which can be played with the other printable resources. They are labelled with between 1 and 4 stars to indicate the challenge level, 4 being the most challenging.

Money boards

These are A4 sheets which show coins and amounts in a grid format. The coin versions should be printed in colour if possible.

Spinners

The simplest way to use the spinners is to place a paperclip on top of them and hold it in place with a pen or pencil. The paperclip can then be flicked to spin it around. Split pins can also be used to hold a paperclip in place or commercial spinner arrows are available from many educational resource companies.