

Money

Professional Learning Resource

This resource is part of the suite of the Numeracy Professional Learning Resources

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Introduction

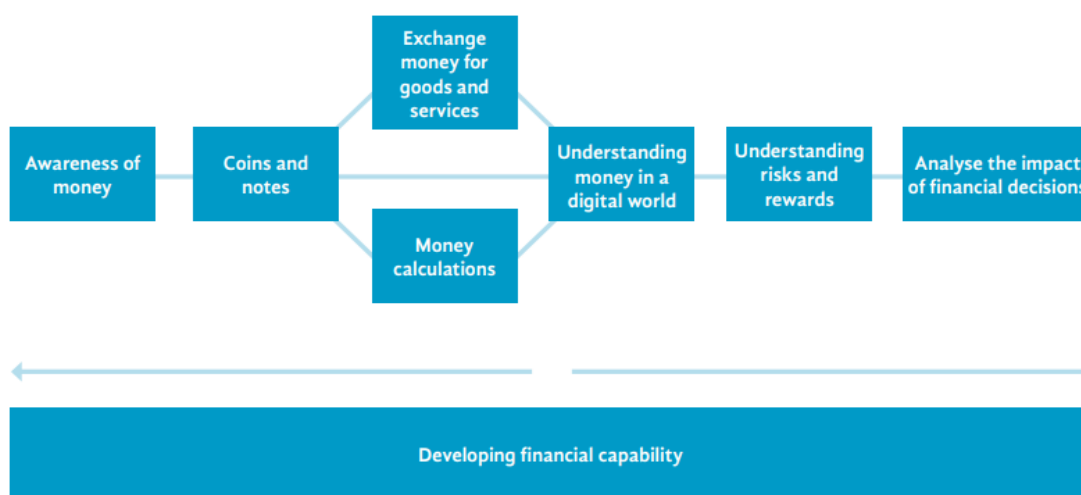
This professional learning resource has been created to enable practitioners to reflect on their own knowledge and understanding, highlight areas which children find challenging and outline effective approaches to support future learning and teaching in money.

An early appreciation of the contexts in which money is used is important. Using coins and notes is an everyday life skill and learners need to understand that, in order to purchase goods or services, money must be exchanged in some format. Methods of payment continue to evolve, and learners should be provided with opportunities to investigate money in a digital world. Developing confidence in mental and written calculations involving money is also an important skill in everyday life.

As learners progress through the levels, they should begin to investigate the range of rewards for saving and investing money, as well as risks involved in borrowing. This will support them in developing the ability to analyse the impact of financial decisions they make.

Throughout all levels learners should be provided with opportunities to apply their understanding of money in real life situations.

National Numeracy and Mathematics Progression Framework¹ Money



Developing Financial Capability

Developing financial capability involves: financial understanding, financial competence, financial responsibility and financial enterprise. These four aspects are interconnected and mutually supportive. They outline a framework for developing skills, attitudes and behaviours that will support learners as employees, employers, entrepreneurs or voluntary workers. The ability to make decisions on spending and saving money is vital in order to balance lifestyle with the cost of living. A glossary can be found on page 55 which explains money and financial education terms.

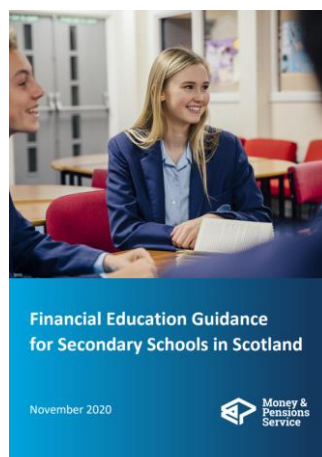
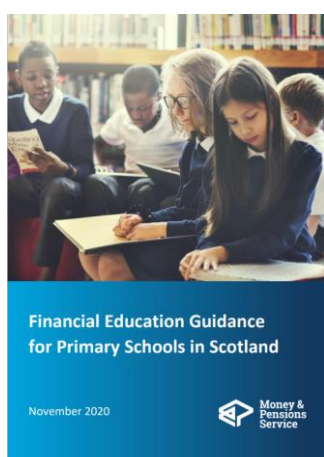
¹ Further guidance on using the National Numeracy and Mathematics Progression Framework can be found by clicking [here](#).

Education Scotland have a page on the [National Improvement Hub](#) which offers additional guidance and resources specifically in relation to financial education. Additionally, the [Numeracy & Mathematics Professional Learning Community](#) (Glow login required) has a dedicated area which focuses on financial education. It provides links to guidance and a wide range of resources produced by both Education Scotland and external partners.

By providing learners with financial education opportunities, we are supporting them to make connections across their learning whilst also bringing an interdisciplinary learning (IDL) approach to the mathematics curriculum. Connecting numeracy and mathematics skills with the real world helps to make mathematical concepts meaningful and relevant, and as a result can deepen learner understanding. Some examples have been provided across each level but there are many more IDL opportunities that could be explored. Each setting has its own unique context and approaches should be adapted and developed in a way which meets the needs of each establishment and their wider community.

Developing the Young Workforce (DYW) can provide a structural context for financial education as it can provide opportunities to make connections between financial capability and skills for life, learning and work.

The [UK Strategy for Financial Wellbeing](#) sets out a national goal to ensure that 150,000 more children and young people growing up in Scotland receive a meaningful financial education by 2030. Money and Pensions Services (MaPS) have created guidance documents which aim to support primary and secondary schools to play their part in achieving this goal. Each document has been developed to outline the value of financial education, provide guidance on how schools can develop or enhance their approaches and to provide a signpost to some of the services and resources available.



[Financial Education Guidance for Primary Schools in Scotland](#)
[Financial Education Guidance for Secondary Schools in Scotland](#)

Young Enterprise Scotland have created a [portal](#) which also links to a wide variety of financial education resources.



Early Level

The table below includes the experiences and outcomes related to 'Money' at early level. The experiences and outcomes should be used in the planning of learning, teaching and assessment. It is important to note that the benchmarks are designed to support teacher professional judgement in progress towards and achievement of a level. There are a range of different experiences that learners need to be exposed to before these can be achieved.

Experiences and Outcomes	Benchmarks
I am developing my awareness of how money is used and can recognise and use a range of coins. MNU 0-09a	<ul style="list-style-type: none">• Identifies all coins to £2.• Applies addition and subtraction skills and uses 1p, 2p, 5p and 10p coins to pay the exact value for items to 10p.

Establishing Strong Foundations for Learning

Careful consideration should be given to the **spaces**, **interactions** and **experiences** we provide, ensuring that opportunities for learners to develop the concept of number permeates across all.

Spaces

Rich, carefully considered learning spaces both outdoor and indoor can offer learners practical opportunities to develop the concept of money. The choice of experiences on offer should reflect an environment of open-ended possibilities in which children can feel intrinsically motivated to explore and investigate money through play. Selecting appropriate and engaging resources can enhance interactions, leading to creativity, curiosity and deeper learning.

Open-ended materials offer the potential for creative explorations through child-initiated and adult initiated learning experiences. Spaces should be planned to provide a balance of opportunities for learners to play, explore, investigate and question. Practitioners should ensure that planning for learning starts with the child and is carefully balanced to be both responsive and intentional in design. Opportunities should enable learners to make sense of money in the world around them, whilst also ensuring learners' needs are being met through their engagement with the experiences and outcomes presented within early level.

There are many ways of permeating money across the learning spaces. Some examples of how to do this are provided below.²

Role play areas - set up different types of shops with goods to buy. This could include supermarkets, smaller convenience shops, banks, clothes shops, bakers, hairdressers, cafés and many more.

Provide items which support role play such as re-usable shopping bags, shopping baskets, shelves to store items on, price labels, toy or real shop tills, and name badges.

Display signs related to money e.g. contactless payments, VISA, Apple Pay, etc

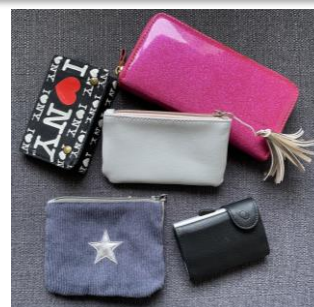


Provide a variety of bank cards, store cards, vouchers and money off coupons.



Make a variety of coins accessible. These might be real, plastic, wooden discs or a mixture of all.

Provide catalogues, take away menus and other real life literature with monetary values attached.



Provide a range of money banks, sometimes known as 'piggy banks'. Money boxes and mini safes could also be made available.

Have a collection of purses and wallets with different kinds of fasteners e.g. zips, clasps and press studs.

Ensure there is a range of storybooks available which refer to money.

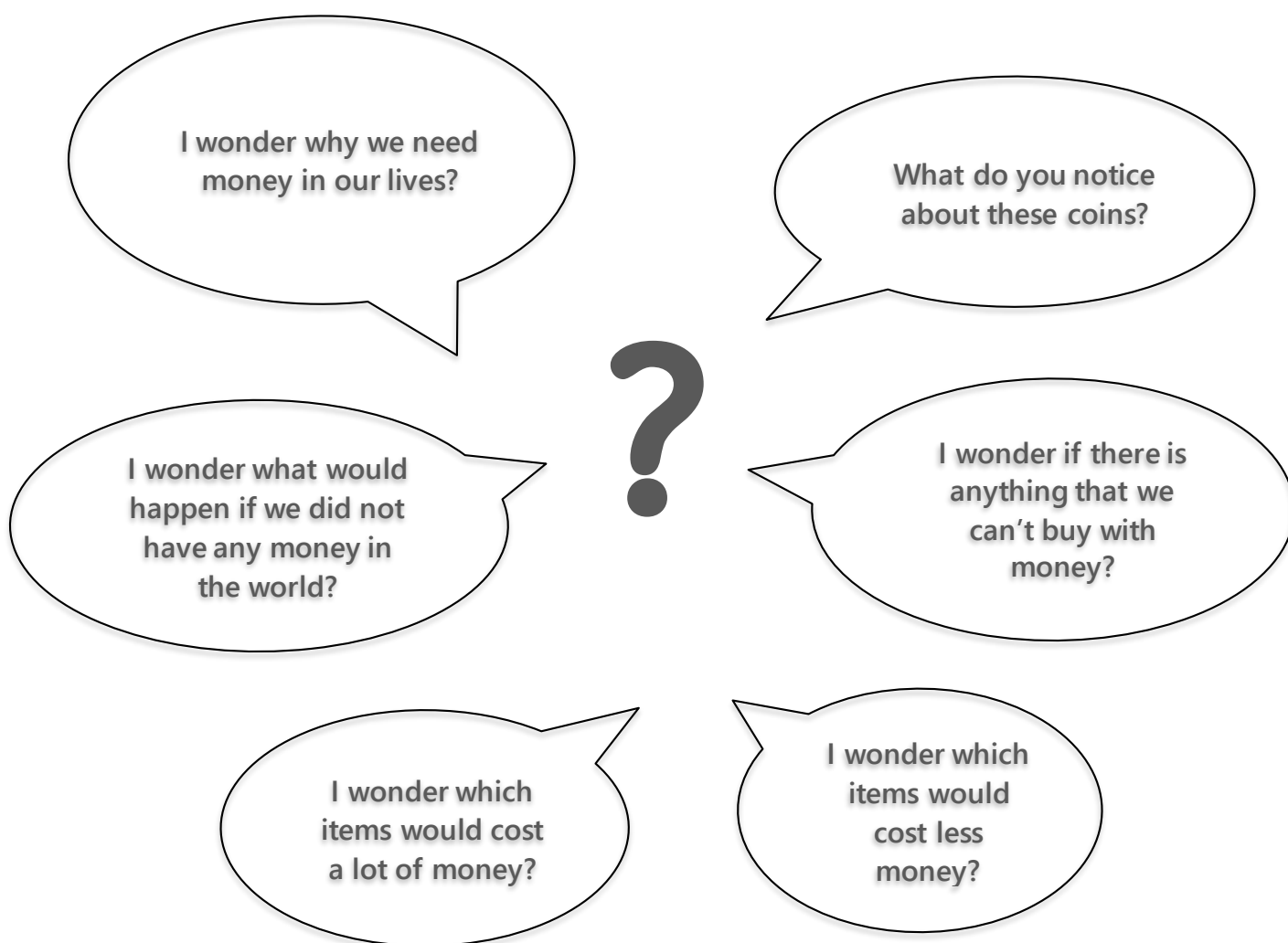
Old card readers, or 'contactless' machines could also be made available, or learners might like to create their own.

² Some of the images within this document have been taken from <https://pixabay.com/>

Interactions – One of the Roles of the Practitioner

One of the roles of the practitioner is to determine what the child could learn through their own interests using high quality interactions. Practitioners should support learners to extend their understanding of money through encouragement of creativity and curiosity. Careful observation is an important assessment tool, as is knowing when to stand back and give learners time to investigate by themselves. It is important to notice when learners are more receptive to further support from the practitioner and address any misconceptions that may cause challenges at later stages.

Language can be used as a powerful vehicle for the teaching and understanding of money. When interacting with learners, practitioners can model the use of relevant vocabulary in meaningful contexts. This allows learners to make links between the spoken word and the associated learning. Using language in the correct context regularly will support learners' understanding.



Experiences and Routines

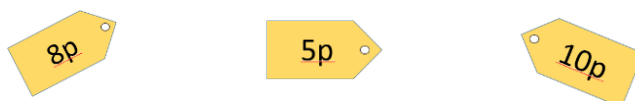
Experiences of everyday activities are important, both indoor and outdoor. An early appreciation of the contexts in which money is used is important. A range of possible experiences are explored over the next few pages.

Role Play and Real Life Situations

It is important that experiences are led by the learners as often possible. Different types of role play opportunities could be set up which reflect a variety of real life situations.

There are many types of shops which could be set up, for example, a supermarket, a shoe shop, a jewellery store, a pet shop, a bakery or anything that learners might demonstrate an interest in or that is relevant to their local context and environment. Learners could take on the roles within these shops, including people who work there and customers, exchanging real or pretend money for the goods available. Tills, pretend bank cards and if possible old or pretend contactless machines could also be used within these areas.

Items could be labelled with price tags and learners have to select the correct coins to pay for these items. Learners could also be encouraged to create price tags through playful interactions. To begin with, amounts should be kept the same as the standard coins, e.g. 1p, 2p, 5p, 10p, 20p, 50p, £1 and £2. As learners progress this can be extended to include amounts where they will need combinations of coins to pay for their chosen item up to 10p.



There are a wide range of other role play areas which could be set up to support learners explore the concept of money being used. Some examples could include cafés, restaurants, garden centres, cinemas, banks, train stations or zoos but there are many other possibilities.



Learners could be provided with opportunities to visit local shops to make purchases with real money. This might include ingredients for cooking, preparing a snack or buying low-cost resources which are required for the setting.

Another opportunity to link to real life situations involving money could be to provide opportunities for learners to be consulted when making decisions about equipment which is purchased for the setting. Dialogue around the cost of items can be a good opportunity to explore vocabulary associated with money such as 'more', 'expensive', 'cheap' as well as beginning help learners understand the difference between needs and wants.

Some establishments may take part in fundraising and enterprise events such as school fayres or charity collections across the year. These could provide opportunities for learners to be involved in the collection of money and to experience the selling of items for money. They could help to collect any monetary donations or organise the donations into piles of coins which are the same. At this stage learners would not be expected to accurately count the money, but it could be beneficial to involve them in the process in some way, this allows learners to handle money for a specific purpose and can make the concept less abstract.

Pre-Money Coins

Before formally introducing coins, we could consider beginning with 'pre-money coins'.³ These are tokens which use dots instead of numerical digits to indicate their value. This approach can also support the development of subitising skills.



Pre-money coins can address some of the misconceptions which can develop. Some learners can find it challenging to understand that the size of a coin does not represent its value. For example, a two pence piece is larger than a one pence piece and has a greater value, however the two pence piece is also larger than a five pence piece but has a lesser value. Initially using these tokens to represent money enables us to talk about holding a number of dots, which the learners can see and quantify, rather than a number of pence, which is an abstract quantity at this stage.

The tokens or counters should all be the same size and colour and the only way to know the value of each token is to count the number of dots on it. Dots should be on one side only to avoid any confusion.

Initially learners could spend time selecting tokens and counting the value of the dots. Some learners can be challenged to combine tokens and count the total value of the dots.



This could then progress to exchanging tokens for real objects which have been labelled.



As confidence grows the objects and tokens can be used in situations where 'change' has to be given.

³ [Money Problems? \(maths.org\)](https://www.maths.org/)

Introduction to Coins

Initially we can provide learners with opportunities to become familiar with different types of coins before formally assigning values to each coin. Some examples of how learners can explore different coins are provided below.

Flip a coin to help make a decision.

Use magnifying glasses to look closely at coins.

Bury coins in sand or mud and ask learners to search for 'treasure'.

What do you notice?

Create patterns using coins.



What do you wonder?

Make towers or piles of coins.



Create coin rubbings.



Recognising and Identifying Coins

By the end of early level, learners should be able to identify all coins up to £2. Coins should be introduced gradually, and the pace of introduction will vary depending on the learners you are working with. The activities which follow can be used with all coins up to £2 but can be adapted for the particular coins that you would like to focus on with your own learners.

Can You Find It?

Show learners a coin and ask them to find the same coin in a sand pit or mud area.

What coin is this?
Can you find a coin that is worth more/less?

This could also be adapted by rolling a die which has coins on each face or spinning a spinner which points to different coins.

What is my coin?

Pick a coin out of a bag without letting the learners see it. Provide clues, one at a time. E.g. 'My coin is brown,' 'My coin is larger in size than a one pence piece.'

What coin is this?
Can you find a coin that is worth more/less?

Learners could also be provided with a small tub of coins, and they hold up the coin they think has been chosen.

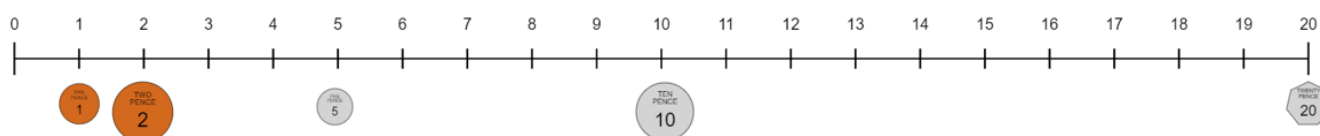
What does it cost?

Set up a pretend shop with labelled items. Learners can use money in their purses/wallets/tubs to purchase items.

To begin with amounts should be kept the same as the standard coins, e.g. 1p, 2p, 5p, 10p, 20p, 50p, £1 and £2. As learners progress this can be extended to include amounts where they will need combinations of coins to pay for their chosen item.

4

Coins on a Number Line



Coins could be placed on a number line. Questions such as 'What do you notice?', 'I wonder why there are not coins for every number?' and 'I wonder if we can make other amounts using these coins?' could be asked.

⁴ Images of coins throughout this document and number lines have been taken from <https://mathsbot.com>.

Outdoor Hunt

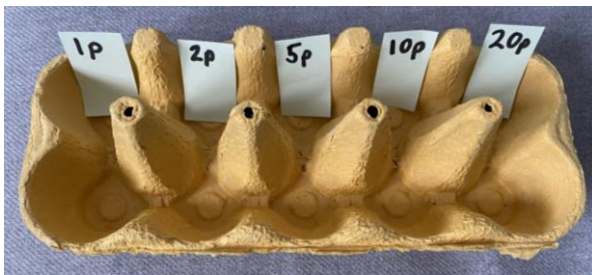
Hide coins in the outdoor area and give each pair of learners an empty tub. Set challenges such as:

- Find one of each coin.
- Find three 1p coins and four 5p coins.
- Find three different silver coins.

Learners could be provided with cards to provide a visual image of what their challenge is.

Coin Matching

Learners can pick out a coin from a purse/wallet/tub and place it into the correct labelled section of an egg box or a muffin tray.



Same/Different

Pick out 2 coins and ask learners:

- I wonder what is the same.
- I wonder what is different.

Coin Sort

Give learners a handful of coins.

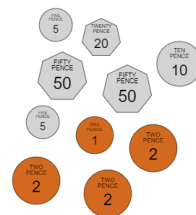
- How can we sort these?
- Is there any other way we could sort them?
- Which coin would you rather have? Why?

Coin Roll

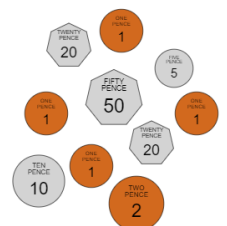
Each player selects a handful of coins (they must have the same number of coins) and places them on a sheet of paper. They take turns of rolling a die which has monetary amounts on it. If the amount they roll is on their piece of paper they can remove that coin. The winner is the first person to empty their sheet of coins.

A spinner can be used instead of a die. Either can be populated with coins appropriate to the coins that you are focusing on with your own learners.

Player 1



Player 2



Addition and Subtraction Using Money

Estimation

- Fill a small jar with pennies and challenge children to estimate the amount. Ask them to count to check.
- Estimate how much money is in the till and then count to check.
- Grab a handful of pennies, estimate how much money is in your hand and then count to check.

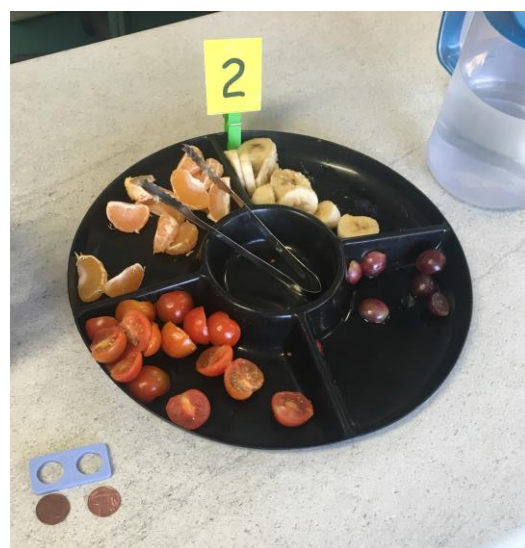


Snack Time

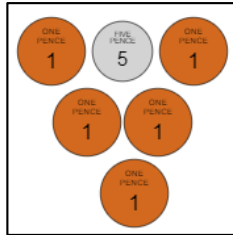
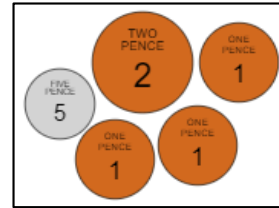
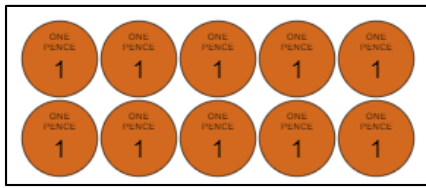
Learners could use coins to 'pay' for their snack each day. The price for each snack could be displayed and learners have to select the correct coin to pay for it.



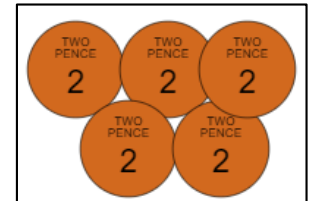
Can you use different coins to make the same amount?



For further challenge, learners could each be provided with a set amount, e.g. five pennies, ten pennies, a ten pence piece, etc., and they have to work out what change they should receive.



I wonder how many ways we can make ten pence?



How Many Coins?

Prepare a large bag filled up with a mixture of coins appropriate to what you would like to focus on.

One learner could grab a handful of coins out of the bag and create a pictogram with the coins they have pulled out.

What do you notice?



This process could be repeated a second time and displayed next to the first pictogram.


'I wonder what is different this time?'

Stories, Rhymes and Songs

In ELC and early primary we know that stories, rhymes and songs connect young children to many aspects of learning and development through diverse, meaningful and rich contexts. Their words and rhythms provide a fun and creative way of exploring numbers and number processes alongside developing associated vocabulary. Incorporating these into practice also enhances movement, coordination, positional language, as well as supporting early number sense. Our brains have become hardwired to respond to stories and learners can use stories, songs and rhymes to make sense of the world. Repetition reinforces learning through encouraging a young child’s natural [schematic](#) behaviour.

Through a range of traditional and contemporary songs, stories and rhymes we can engage learners’ interests and curiosity and help them understand abstract concepts. There are many stories, rhymes and songs that address mathematical concepts, and they can be adapted or used in provocations to illustrate a concept or pose an investigation for learners to problem solve.

ELC and early primary settings already provide a rich array of songs, stories and rhymes for young children. Some examples of ones that relate to UK money are listed below but there are more available.

Songs & Rhymes	Stories
<div><ul style="list-style-type: none">• Five Currant Buns in a Baker’s Shop• Ten Shiny Coins• Hot Cross Buns</div> <div></div>	<div><ul style="list-style-type: none">• The Shopping Basket (John Burningham)• Spend it! (Cinders McLeod)• The Great Pet Sale (Mick Inkpen)• Jack and the Beanstalk (traditional tale) - could discuss the exchange of the cow for magic beans.</div>

We already know that actions, puppets and objects are effective in acting out what is happening in the stories, rhymes and songs – but consider how these also provide young children with visual and physical reinforcement of the concept of money. Encouraging young children to be creative with stories, songs and rhymes can provide a powerful observational tool in assessing their understanding of concepts.

Points to consider:

- Learners may believe that the larger a coin, the greater the value.
- Learners will have had a variety of experiences. Some may have had very limited experience of using coins in real life. Some may have experienced family members or friends paying for items using alternative methods to cash.

Reflective questions:

- **In what ways can we offer more opportunities to embed the concept of money within our setting?**
- **How can we incorporate money into the interests and choices of learners?**
- **What experiences of using money do the learners within our setting come to us with? How can we build on these?**

Links across the curriculum:

Numeracy and Mathematics

- Number – addition and subtraction within 10.
- Data & Analysis – collecting, sorting and creating basic surveys to make decisions about buying resources.
- Estimation – how many in each collection of coins?

Literacy and English

- Communicate ideas about money through imaginative play.
- Invent stories and characters to share with others in play, imaginative and real contexts.

Expressive Arts

- Convey, through drama, what characters in real or imaginary situations might say, do or feel in situations where money and finances are involved.

Health and Wellbeing

- Communicate with others about different jobs in the community.

Social Studies

- Identify at least two types of shops or services families might use, for example, supermarket or health centre.

Technology

- Recognise different types of digital technology related to money and finances.

First Level

The table below includes the experiences and outcomes related to 'Money' at first level. The experiences and outcomes should be used in the planning of learning, teaching and assessment. It is important to note that the benchmarks are designed to support teacher professional judgement in progress towards and achievement of a level. There are a range of different experiences that learners need to be exposed to before these can be achieved.

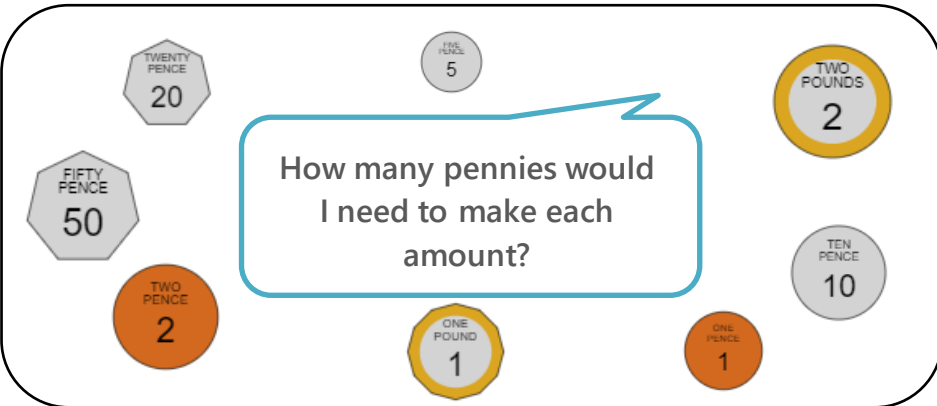
Experiences and Outcomes	Benchmarks
<p>I can use money to pay for items and can work out how much change I should receive. MNU 1-09a</p> <p>I have investigated how different combinations of coins and notes can be used to pay for goods or be given in change. MNU 1-09b</p>	<ul style="list-style-type: none"> Identifies and uses all coins and notes to £20 and explores different ways of making the same total. Records amounts accurately in different ways using the correct notation, for example, 149p = £1.49 and 7p = £0.07. Uses a variety of coin and note combinations, to pay for items and give change within £10. Applies mental agility number skills to calculate the total spent in a shopping situation and is able to calculate change. Demonstrates awareness of how goods can be paid for using cards and digital technology.

Effective learning and teaching approaches

Coins and Notes

It is important that learners continue to be provided with a wide range of opportunities to investigate and explore the different types of coins and notes. Pages 10 – 14 of this document (early level) provide a range of activities which could support the development of coin recognition, some of these activities could be extended to explore the notes which are introduced at first level.

It is important that learners develop an understanding that 100 pence is the same as £1. Some learners may believe that 100 pence seems like the larger amount and therefore can find it challenging to make the correlation between the two amounts. Providing lots of opportunities to exchange pennies for alternative amounts can support their understanding of this.



This could be extended further.

- How many two pence pieces make 20p?
- How many twenty pence pieces make £1?
- How many fifty pence pieces make £1?

It is important to model counting when counting coins and providing lots of opportunities for learners to skip count can be highly beneficial. Being able to skip count in 2s, 5s and 10s is a useful pre-requisite skill for learners to have when counting money.

The next few pages provide some additional examples of experiences which could support learners to identify different coins and notes and explore the different ways of making given amounts. These activities can be adapted to meet the needs of individual learners, for example, some learners may be working with amounts up to £5 and some may be working with smaller or larger amounts.

Similarities and Differences

Look at all the coins and notes up to £20. Investigate what the similarities and differences are. This could be adapted to focus only on two or three coins or notes at a time.

<i>Similarities</i>	<i>Differences</i>


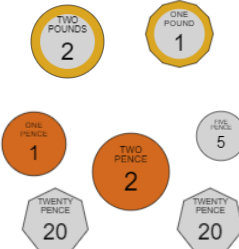
Smallest to Largest Value

Provide learners with one of each coin and note (most likely pretend money now that the value has increased). Order these from the smallest to the largest value.

Randomly pick a few coins or notes out of a bag. Order the selected amounts from the smallest to the largest value.

Coins and Notes

Make this amount using the fewest number of notes and coins you can.

£13.48	
	

How many coins?

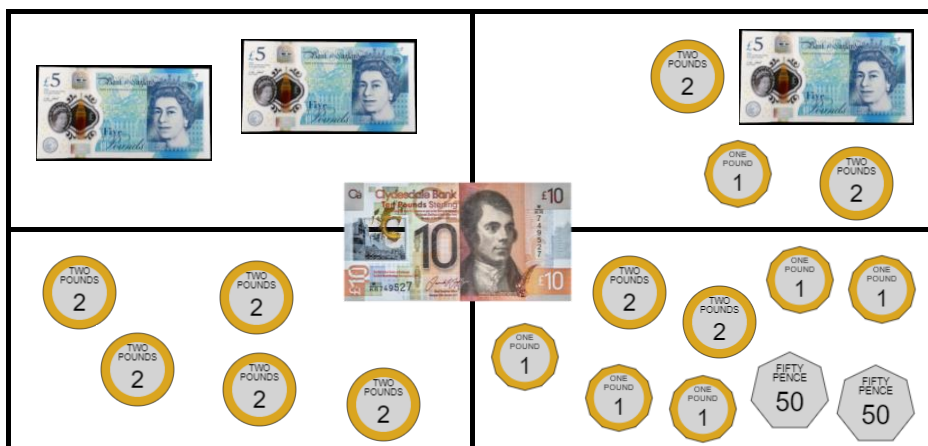
Learners could be given sample menus or catalogues and asked to pick an item and choose the notes and coins they could use to buy this.

- What is the least number of coins and notes you could use to pay for it?
- What other combinations of notes and coins could you use?

This could be extended by asking learners to pay for multiple items.

How Many Ways?

Provide opportunities for learners to investigate different ways of making a particular amount of money.



Questions that could prompt further investigation.

- What other ways could we make this amount?
- How could we make this amount using the least number of coins and notes?
- Can we make this amount using only four (substitute for any other number) coins or notes?
- Can we make this amount using at least one of every coin?

Money Match Up

Monetary values could be written in paper cups or cupcake cases and learners can place the correct coins and notes into them.



It is worth spending time during these types of activities discussing the different ways of counting the coins and notes.

- How did you count them?
- Should we start with the largest values or the smallest values of coins?
- What ways of counting did you find easier?
- What other ways could we count the total amount of notes and coins?
- I wonder what the most efficient way of counting them would be.

What could it be?

Learners could be given statements and asked to work out the possible combination of notes and coins.

I have 5 coins in my pocket, how much money could I have?



I have 2 notes and 2 coins in my pocket, how much money could I have?

I have one note and 3 coins in my pocket, how much money could I have?



I have 2 silver coins and 2 copper coins. How much money could I have?

What is the most/least amount of money I could have in each of these situations?

Lollipop Sticks

Write monetary amounts on lollipop sticks and ask learners to stick the correct combination of notes and coins to the stick using sticky tack.



Can we use a different combination of notes and/or coins?

Money Vocabulary and Notation

Monetary values can be written or spoken in different ways, and it is worth taking time to discuss the different language that learners may have been exposed to. Some examples of these are noted below but there are many more and some may depend on local dialect or the way in which different families refer to money.

a quid	one pound
dosh	general term for money
dough	general term for money
fiver	five pounds

tenner	ten pounds
a grand	one thousand pounds
pony	twenty-five pounds
score	twenty pounds

It is important that we explicitly teach how to record amounts accurately in different ways, using the correct notation. Matching activities can be useful in highlighting the different notation. This could be through matching pairs, snap, lotto or other matching activities.

eight pounds
seventeen
pence

ten pounds

six pounds
and six
pence

£0.07

three
pounds
forty-five

£6.06

£3.45

£10

seven pence

£10.00

7p

Which of these have the same value?

£8.17

Least to Most

Learners could be provided with opportunities to explore notation further and order amounts from the least amount of money to the most amount of money. Learners could link the written notation with the concrete money and then progress to using the notation only.



It can also be beneficial to allow learners time to explore the '£' symbol and practise writing it.

Grab a handful of coins, write the total amount in at least two different ways.

TWO
POUNDS
2

TWO
POUNDS
2

ONE
POUND
1

ONE
PENCE
1

ONE
PENCE
5

ONE
POUND
1

ONE
PENCE
1

£6.07

OR

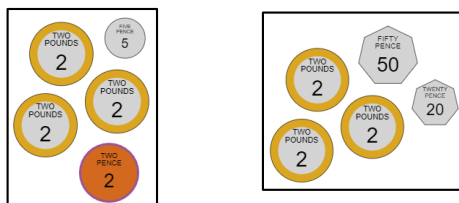
607p

It is worth noting that recording money in the format £6.07p is incorrect. Money should be recorded in either pounds or pence.

Learners sometimes find place value in the context of money challenging. For example, they might record six pounds and seven pence as £6.70. It can be a good idea to address this using concrete and pictorial representations of amounts where this may occur. The example below demonstrates a possible activity that could help to make the values seem less abstract.

Show learners the two different amounts, e.g. £6.07 and £6.70. Ask them:

- What are the similarities?
- What are the differences?
- Write down the amounts. What do you notice?



This could be repeated with other similar types of monetary values, e.g.

- £9.90 and £9.09
- £7.70 and £7.07

The language of money is also important to highlight. For example, £5.95 should be referred to as 'five pounds ninety-five' or 'five pounds and ninety-five pence'. Whilst some people may refer to this amount as 'five ninety-five' it is worth avoiding this as this format does not support the understanding of pounds and pence.

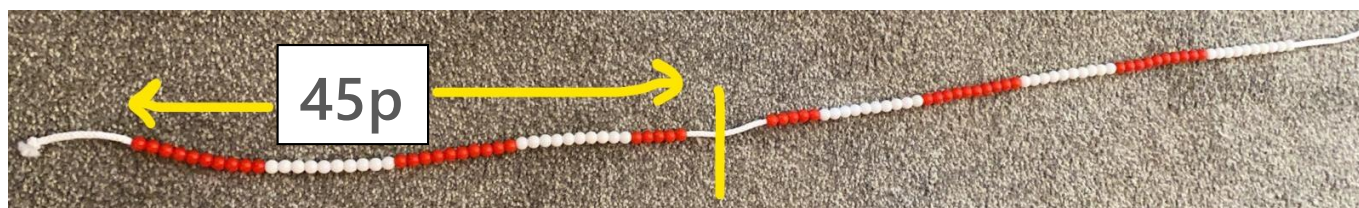
It is also important to recognise that the use of money as a context and the language associated with money can lead to misconceptions around decimal place value. For example, 'five, ninety-five' can encourage learners to interpret digits after the decimal point as whole numbers when, in fact, they are tenths and hundredths of one pound. Emphasis should be placed on the pennies being a part of a pound as this will reduce potential misconceptions that may arise around decimal place value when it is formally introduced at second level.

Calculations Involving Money

In some of the previous activities learners will have carried out calculations involving addition to make the various required amounts. This should be extended to use both addition and subtraction to calculate total amounts, the differences between amounts and to calculate what the correct change will be in a variety of given situations. It is important to spend time discussing the strategies that learners are using and link these closely to the number skills they are also developing. More information about addition and subtraction strategies can be found in the [Number and Number Processes Professional Learning Resource](#). Some examples of activities which involve calculations are provided over the next few pages alongside potential strategies that we could support learners to use.

Bead Strings

Learners could use a one hundred bead string to represent one pound. Each bead would represent one pence. This type of activity can also support development of number bonds to 100. It can help learners to see that change can be calculated both by counting on and by subtracting. Before moving onto calculating change, learners could practise making different amounts using the bead strings. The example below demonstrates 45p.



Show me 45p

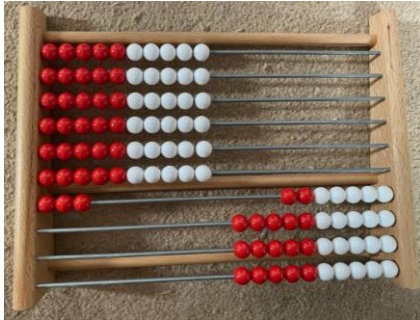
I have £1 and I spend 72p. How much change will I receive?

You have £1 and would like to buy a pencil costing 39p and a sharpener costing 56p. Do you have enough money? Use the beads to show your thinking.

If the learner is asked to find the change from £1 if they spend 45p, they could either count on up to 100 from 45 or they could count back 45 from 100. It is important to take the time to explore both approaches.

Change from £1

100 bead frames can be used to calculate change from £1.



If I spend 63p, how much change will I receive?

Learners could make 63 on the bead frame and then count how many beads are left.

A one hundred square can be used to calculate change from £1. Learners could cover the amount given and count how many squares are left. Hundred squares can also provide opportunities to count on and count back to calculate change within £1.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

counting on

If I spend 45p,
how much
change will I
receive?

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

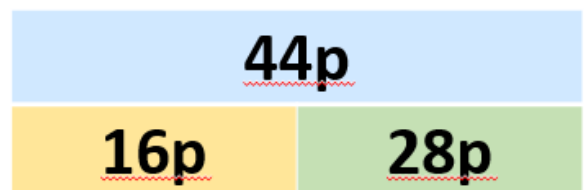
counting back

Bar Models

Bar models can help learners to explore the link between addition and subtraction when working with money. Initially they can use coins and notes and when ready they can move onto using formal notation.

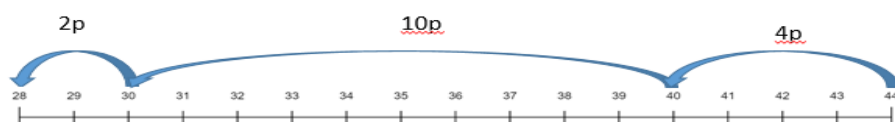


$$\begin{aligned}
 16p + 28p &= 44p \\
 28p + 16p &= 44p \\
 44p - 16p &= 28p \\
 44p - 28p &= 16p
 \end{aligned}$$



Number lines

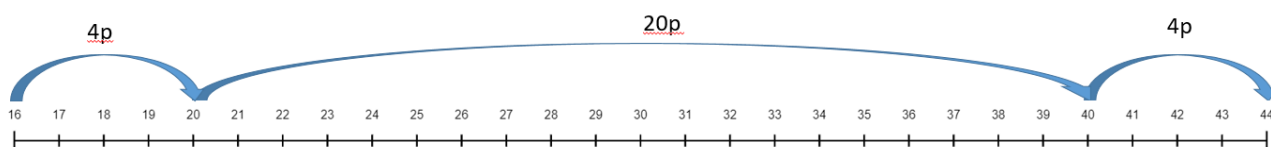
Number lines can also support learners to carry out calculations involving money. Again, it is important that they are provided with opportunities to count on and count back using the number lines.



counting back

I had 44p and I spent 16p. How much do I have now?

counting on



Other Possible Money Activities

How much more do I need?

Going back to the menus or catalogues examples, learners could carry out some of the following activities.

Pick 2 items. What do these cost? How much change would you get if you handed over £7.50?

You have £10, what items could you afford to buy?

You have £5. Pick one of these items and work out how much change you would get.

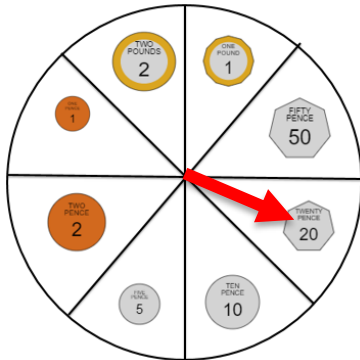
What is the difference in price between the most and least expensive item?

Show this change in the least number of coins possible.

There is a half-price sale, how much will your chosen item(s) cost now?

Keep Your Money

Learners could work in pairs or small groups. Each person starts with an amount, e.g. £20 or £10. Each player takes turns of spinning the money spinner and whatever coin it lands on must be taken away from their total. The winner is the first person who gets to zero.



This game could also be played in reverse. Learners could start with nothing and add the amount from each spin to their total. The winner could be the first person to reach a certain amount. (The spinner could also be substituted for a die where the faces have been changed to coin amounts.)

Which is worth more?

Grab a handful of coins and place in one circle. Grab another handful and place in another circle. Ask learners to estimate the total amount in each circle and then count and check.

- Which is worth more? How do you know?
- What is the total amount of both circles?
- Could we make this total amount using less coins than we have here?
- What is the difference in value between the two totals?



Same Surface, Different Depth

An apple costs 37p in the tuck shop. Show which coins could be used to pay 37p exactly.	An apple costs 37p in the tuck shop. I pay using a 50p coin. How much change will I get?
An apple costs 37p in the tuck shop. You only have 20p. How much extra do you need to buy the apple?	An apple costs 37p in the tuck shop. How many apples could you buy for £1.

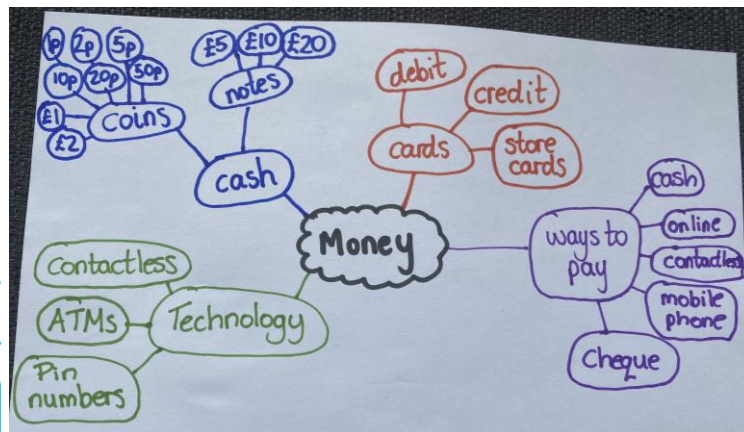
Same surface, different depth problems provide learners with opportunities to identify the strategy needed and then to use that strategy to solve the given problem. Using this approach can support learners to build up a range of strategies to solve money problems. This approach can also act as an assessment tool for the practitioner e.g., can the learner apply their knowledge and skills about money to a variety of unfamiliar contexts?

Real Life Experiences and Digital Money

It is important to explore the different ways that goods or services can be paid for other than by using cash. At first level we are looking to explore ways in which goods can be paid for using cards and digital technology. Benefits and risks of using these will be explored further at second level. Additional links could be made to technologies as learners could be provided with opportunities to explore the importance of online safety, for example, keeping passwords safe which is an essential component for keeping our money safe online.

Money in the Real World

Learners could investigate the different types of money and the technology that surrounds them. Discussion around their own experiences of what they have seen in their own lives or in films and television programmes could take place.



Where have you seen money used in real life?

How do you think people will pay for things in 100 years?

What is the difference between a debit card and a credit card?

I wonder what the world would be like if money did not exist?

When people pay by cards, where does that money come from?

I've noticed that some people type numbers into a pad and others just tap their card. I wonder why that is?

What situations would people be more likely to pay by card?

My friend uses her home speaker device (e.g. Alexa) to buy things. I wonder how that works?

I have seen some people pay using their phone or their watch, I wonder how that works?

When my dad orders a take away, he orders it on his phone and then it arrives. Does this mean he gets it for free?

My aunt sent me a cheque for my birthday, why could I not spend that at the shops?

Design Your Own Card

Investigate the different features that bank cards have in common. Learners could design their own bank card. Key things to include:

- Name
- Signature strip
- bank name
- 16-digit card number
- 3 digit security number
- Expiry date

School Spending/Charity Collections

- You could involve learners, where appropriate, in making decisions around what some school funding is spent on.
- Learners could also be involved in the collection of donations for charitable events that the school is running.
- You could provide opportunities for learners to lead charitable events or carry out fundraising activities.

What resources would help us have better learning experiences? In what way will they improve things?

Which charities could we raise money for?

What can we do to raise money?

How much have we raised?

How will we pass the money raised onto our chosen charity?

Needs and Wants

There are lots of opportunities to link to Social Studies experiences and outcomes when exploring money concepts. For example, needs and wants. Further examples are highlighted on page 30.

What needs do we have?

What wants do we have?

What is the difference between these?

What things do we need to spend money on in our lives?

Needs	Wants

What choices do we have in relation to what we spend money on?

What if we really want something but don't have enough money?

Money provides a great deal of opportunities for interdisciplinary learning; some examples are provided throughout this document but there are many more that learners could be provided with.

The importance of savings and providing an opportunity to discuss the benefits of delayed gratification can also be beneficial. Some sensitivities are required as we know that learners come from different backgrounds and will have different experiences with money. Some families may be struggling financially, and it is important that we are sensitive to this in any discussions and activities that we ask learners to be a part of, particularly when it comes to discussions around savings and pocket money. Not all children will receive pocket money as some families are not in a position to provide pocket money or choose not to because of cultural reasons or personal choice.

It can also be helpful to spend time investigating how much items in the real world cost to help learners understand the value of items they may want to purchase.

How much?

Provide learners with images of items that they or their families might purchase. Ask them to put the images in order from least expensive to most expensive and note what they think the price might be. They could estimate the individual prices for each item.



Check with the real prices. Ask learners if anything surprised them.

A wide range of resources to develop financial education can be accessed through the [National Improvement Hub Financial Education Resources site](#). It provides links to stories, activities and interdisciplinary learning approaches that could be used. [Guidance](#) created by The Money and Pensions Service is also available which has been developed to highlight the links between financial education and Curriculum for Excellence, setting out how schools can improve the financial education they deliver, and signposting to services and resources that can help.

[Values, Money and Me](#) is an online resource, with stories, activities and quizzes, for practitioners and learners which is developed and funded by Experian. It aims to help children to explore the world of money within the context of personal and ethical values and the sometimes complex, emotional and moral dilemmas that we all face in relation to money. The resources are most suitable for first and second level learners.

[MoneySense](#) is a free financial education programme for 5-18 year olds. It is packed with activities, games and resources that help teach children about money at school and at home.

Points to consider:

- Decimal fractions are not introduced until second level which can make formal notation more challenging for some learners.
- Learners will come from a wide range of experiences involving money, for some learners it may not be positive experiences that they have had, and it is important that we are sensitive to this.

Reflective questions:

- **How can we ensure we provide a range of opportunities for learners to investigate and explore the different types of coins and notes?**
- **In what ways can we provide opportunities for learners to investigate how money is used digitally?**
- **What opportunities can we provide that will make links to financial education and money being used in real life situations?**

Links across the curriculum:

Numeracy and Mathematics

- Develop ways of estimating the answer to a calculation or problem.
- Understand the importance of zero and explain the link between a digit, its place and its value.
- Use addition and subtraction when solving problems.
- Estimate total amounts of coins/notes and estimate the answer to calculations involving money.
- Make links to fractions in real life e.g. 'half price', 'a third off', etc.

Health and Wellbeing

- Discover the different ways that advertising, and media can affect my choices.

Religious and Moral Education

- Become aware that people's beliefs and values affect their action (links to charity).

Social Studies

- Discuss the difference between own needs and wants and those of others around us.
- Participate in decision making and consider the different options available in order to make decisions.
- Work out the amount of money needed to buy items and understand that we may not always be able to afford the items we want.
- Investigate the different jobs involved in running a business enterprise and understand the role each one plays in its success.

Technology

- Explore the latest technologies and consider the ways in which they have developed.
- Demonstrate an understanding of the need for strong passwords.

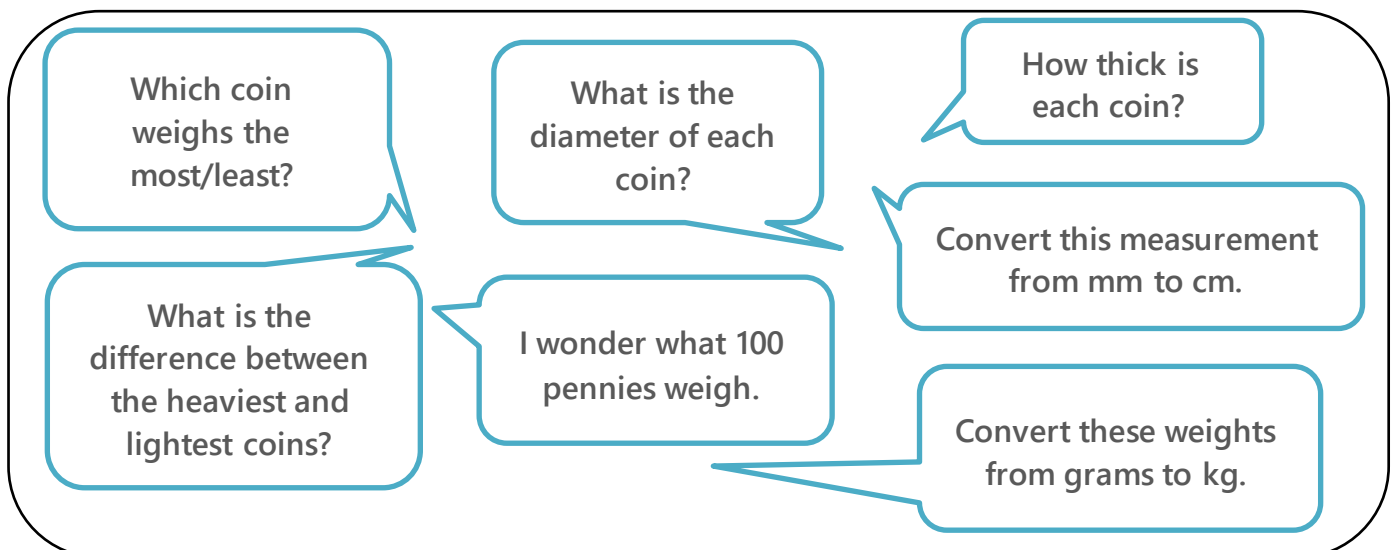
Second Level

The table below includes the experiences and outcomes related to 'Money' at second level. The experiences and outcomes should be used in the planning of learning, teaching and assessment. It is important to note that the benchmarks are designed to support teacher professional judgement in progress towards and achievement of a level. There are a range of different experiences that learners need to be exposed to before these can be achieved.

Experiences and Outcomes	Benchmarks
I can manage money, compare costs from different retailers, and determine what I can afford to buy. MNU 2-09a	<ul style="list-style-type: none">• Carries out money calculations involving the four operations.• Compares costs and determines affordability within a given budget.• Demonstrates understanding of the benefits and risks of using bank cards and digital technologies.• Calculates profit and loss accurately, for example, when working with a budget for an enterprise activity.
I understand the costs, benefits and risks of using bank cards to purchase goods or obtain cash and realise that budgeting is important. MNU 2-09b	
I can use the terms profit and loss in buying and selling activities and can make simple calculations for this. MNU 2-09c	

Effective learning and teaching approaches

At early and first level learners should have been provided with a range of opportunities to investigate and explore the different types of coins and notes. This can be investigated further at second level and can link across different curriculum organisers such as number and number processes, decimal fractions and measurement.



Calculations Involving Money

At second level, calculations involving money should be extended to include multiplication and division. This section provides some examples and approaches that may be beneficial to use initially. Examples of addition and subtraction strategies can be found in the first level section.

Using Area Models to Solve Multiplication Calculations

$$\text{£}4.50 \times 12$$

Some learners may benefit from a visual representation of the coins, particularly multiplication of the 50p.



	£4	£0.50
10	£40	£5
2	£8	£1

$$10 \times \text{£}4.00 = \text{£}40$$

$$10 \times \text{£}0.50 = \text{£}5$$

$$2 \times \text{£}4.00 = \text{£}8$$

$$2 \times \text{£}0.50 = \text{£}1$$

$$\text{£}40 + \text{£}8 + \text{£}5 + \text{£}1 = \text{£}54$$

Using Area Models to Solve Division Calculations

$$\text{£}76 \div 4$$

	£48	£28
4	£12	£7

48 and 28 have been chosen as they add up to 76 and are both multiples of 4. These smaller amounts are easier to divide.

$$\text{£}48 \div 4 = \text{£}12$$

$$\text{£}28 \div 4 = \text{£}7$$

$$\text{£}12 + \text{£}7 = \text{£}19$$

$$\text{£}828 \div 6$$

6	600	120	60	48
---	------------	------------	-----------	-----------

828 can be split into easier to manage multiples of 6.

6	600	120	60	48
---	------------	------------	-----------	-----------

Divide each of the multiples by 6 and then add them together.

$$100 + 20 + 10 + 8 = 138$$

$$\text{£}138$$

Further examples of using concrete and pictorial representations for multiplication and division can be found in our [Number and Number Processes Professional Learning Resource](#).

Examples of More Challenging Calculations

Sarah saves up £4.50 a week for 12 weeks. Can she afford to buy a new pair of trainers that cost £49.99?



How much change will she have?

Callum shares £75 equally between his 4 children and gives the rest to charity. How much money did he donate to charity?

Lena spends £110 a month on train tickets. She makes 20 journeys each month. How much does each journey cost?

Zain has 8 weeks to save up £45.50 for his mum's birthday present. How much will he need to save each week?

How much?

Learners could use online catalogues or shops to carry out different types of calculations.

I have £20 and I want to buy a present for each of my 4 friends. I want to give them all the same item. Which items could I afford to buy?

Vivian and her 2 sisters decide to split the cost of a purchase (e.g. computer game) between them equally. How much will they each need to pay towards the item they choose?

Aleksy wants to buy four footballs. How much would this cost? If Sarah had £50, could she also afford to buy a pair of goalie gloves?

Real Life Experiences and Digital Money

At second level we should provide opportunities for learners to manage money, compare costs from different retailers and determine what they can afford to buy.

‘Research shows that financial education in school, at home and in the community makes a positive difference. Children who say they learned about managing money in school do better on many measures of financial capability than their peers. They are more likely to:

- *save up frequently*
- *have a bank account, and*
- *be confident managing their money.*

Financial education helps children learn how to manage their money now and in the future, choose the best financial products and services and protect themselves from fraud and exploitation. However, in Scotland, only four in ten children aged seven to 11 recall learning about money management at school, so more is needed to give them the engaging opportunities they need to develop these vital life skills.’⁵

A wide range of resources to develop financial education can be accessed through the [National Improvement Hub Financial Education Resources site](#). It provides links to stories, activities and interdisciplinary learning approaches that could be used. [Guidance](#) created by The Money and Pensions Service is also available which has been developed to highlight the links between financial education and Curriculum for Excellence, setting out how schools can improve the financial education they deliver, and signposting to services and resources that can help. Money provides a great deal of opportunities for interdisciplinary learning, some examples are provided throughout this document but there are many more that learners could be provided with.



Financial education is crucial for both skills for work and skills for life. How well we collectively prepare young people for the challenges of the future labour market will become a defining feature of education over the next years. DYW provides the structural context for this, and financial education will lend many connections and development opportunities in this area, including strong links with employers.

There are some banks that provide funding to support entrepreneurial training. Details of some of these can be found on our [Numeracy Professional Learning Community](#). Establishments will need to register to take part in these types of activities.

The next few pages provide examples of experiences that could support learners to develop their money skills, some of these could be used as part of an interdisciplinary approach.

⁵ [MPS Brand implementation Report template \(moneyandpensionservice.org.uk\)](#)

Day Trip/Holiday Planning

Provide learners with a budget for a day trip or a holiday and ask them to plan a trip within this budget. Learners could be provided with examples and then make choices about where they go and how many people they would like to take with them. Some activities/accommodation can be offered by multiple providers which helps learners to see the importance of comparing costs before making a purchase.

Supermarket Costs

Compare the cost of items across different supermarkets. Learners could be given a recipe that they could make in class or at home and find which supermarket would offer them the best value for the ingredients that they require.

Compare multipack/multi-buy offers in supermarkets and investigate which offers and product sizes provide the best value for money.

Profits and Losses*

Calculate the profit and loss on items sold at the school fair. The table below is given as an example. It could be that learners calculate the profit and loss on actual items that are sold at their own school fair or a small business enterprise.

Item	Cost to make a single item	Amount available to sell	Price at school fair	Amount of items sold at the school fair
Bookmark	£0.30	36	£0.50	30
Photo frame	£1.00	32	£1.10	25
Magnet	£0.45	30	£0.50	28
Bird house	£2.75	10	£4.00	10
Bracelet	£1.50	15	£2.00	13
Keyring	£0.65	30	£1.50	25

**Scotland Learns Task – Money (Primary) – Numeracy and Mathematics Activities*

A Meal Out (or in)

Going back to the menu examples mentioned in previous levels, learners could carry out some of the following activities.

You and four friends go out for a meal. Each of you has a starter, a main course and a juice. Two of you have a dessert. Which items from the menu could you have ordered if your bill is less than £80.

The total bill came to £80. You decide to leave your server a tip of 15%. How much money would you be giving as a tip?

You have a voucher for 50% off main meals. How much will your final bill be?

[Beads, Bawbees and Banknotes](#) is an interdisciplinary resource about money. It is a free resource aimed at second level learners and is available to all schools in Scotland. It contains a wide range of resources that aim to stimulate discussion and encourage problem solving in relation to money.

[Values, Money and Me](#) is an online resource, with stories, activities and quizzes, for practitioners and learners which is developed and funded by Experian. It aims to help children explore the world of money within the context of personal and ethical values. The resource also explores the sometimes complex, emotional and moral dilemmas that we can face in relation to money. The resources are most suitable for first and second level learners.

[MoneySense](#) is a free financial education programme for 5-18 year olds. It is packed with activities, games and resources that help teach children about money at school and at home.

We should also begin to explore the benefits and risks of using bank cards and other digital technology to pay for goods or services. It may be a good idea to revisit the difference between a debit card and a credit card initially.

Funny Money

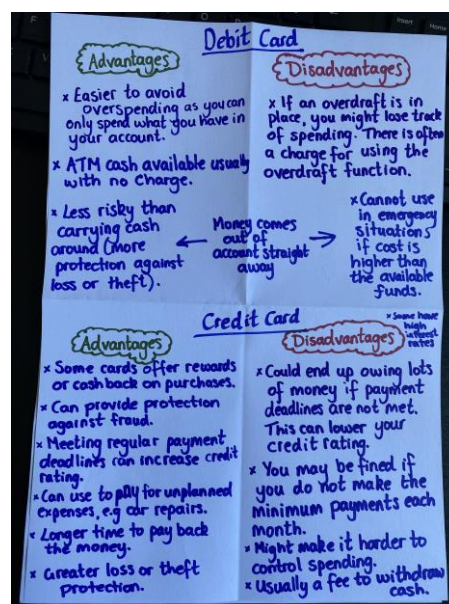
Read the story '[Funny Money](#)' by Alison Prince. Discuss the situation that Shannon's family found themselves in. You could ask learners:

- Why does her mum call it 'funny money'?
- How could the family have avoided this situation?
- What were the different feelings that Shannon had?
- How do you think her parents and gran felt?

A recording of this story can also be found [here](#).



Investigate the advantages and disadvantages of using debit and credit cards and make a list or a poster of these.



How Has Money Evolved?



Research the ways in which money has evolved over time. Learners could make predictions about how this might continue to change in the future.

Revise the different ways that goods can be paid for e.g. cash, debit card, credit card, apple pay, eWallets, cheques, prepaid cards etc. Discuss where they have seen these being used and how each method works.

Online Purchases

Investigate the risks and benefits of making online purchases and how we can protect ourselves from money being taken from us when it shouldn't be. Links could be made with cyber resilience and internet safety. How can having cyber resilience skills help us look after our finances?

Digital Currency

Investigate online gaming currencies and explore learners' own experiences of this.

- What currencies are used? How do they work?
- How is this different to the way money has been traditionally used?
- What are the benefits/risk of using these currencies?

Cinema Trip

Kristina and Jay visit the cinema. They both purchase snacks from the shop. Kristina uses a debit card to pay for her snacks and Jay uses a credit card to pay for his. Read the statements below and decide if they were made by Kristina or Jay. Give a reason for your answer.

Statement	Kristina or Jay?	Reason
"I have borrowed the money for the snacks and I will pay it back at the end of the month."	Jay	This statement was made by Jay because he used a credit card and this involves borrowing money and paying it back to the bank on a monthly basis.
"I will be charged an extra 25% interest on my purchase and therefore the overall cost of the snacks will be greater than the actual price."		
"It is easy to forget about all of the small purchases that I have made each month. Sometimes, the monthly bill is much more than I expected it to be."		
"I don't need to worry about remembering to pay back the money, as it will be taken out of my account when I purchase the snacks."		
"If I pay back the cost of the snacks on time, this will help me to build up a good credit score. That will be important if I want to apply for a loan or a mortgage in the future."		
"If I don't have enough of my own money in my account today to cover the cost of the snacks, my card will be declined or I might get charged a fee".		

Points to consider:

- Each learner will have their own experiences with money at home, sensitivity to this is essential.
- The way we use money is developing at a fast pace and it can be a good idea to take time to look at the history of money and make predictions about future developments.
- Although currency conversion isn't introduced until third level some learners may already have experience of this through purchasing online currencies and credit for popular computer games and consoles. How do we ensure learners understand the exchange value of their real money compared to its online credit value?

Reflective questions:

- In what ways can we provide opportunities for learners to investigate the impact digital technology is having on the way that money is used?
- What opportunities can we provide that will make links to financial education and money being used in real life situations?

Links across the curriculum:

Numeracy and Mathematics

- Add, subtract, multiply and divide decimal fractions to two decimal places.
- Calculates simple percentages of a quantity.
- Converts between common units of measurement using decimal notation.

Health and Wellbeing

- Learning to assess and manage risk, to protect myself and others, and reduce the potential for harm when possible.
- Contribute towards a healthy eating plan (budget).
- Understand how advertising and the media are used to influence consumers.

Literacy and English

- To recognise when my sources try to influence me and how useful these are.

Religious and Moral Education

- Develop my understanding of how my own and other people's beliefs and values affect their actions (links to charity).

Social Studies

- Explain how the needs of a group in my local community are supported.
- Explore ethical trading and understand how people's basic needs are the same around the world.
- Identify essential goods and services, discuss the different way to pay for them and consider the benefit and risks of each method.
- Experience the setting up and running of a business.

Technologies

- Awareness of how to keep myself safe and secure (when using digital technologies).
- Investigate how product design and development have been influenced by changing lifestyles.

Third Level

The table below includes the experiences and outcomes related to 'Money' at third level. The experiences and outcomes should be used in the planning of learning, teaching and assessment. It is important to note that the benchmarks are designed to support teacher professional judgement in progress towards and achievement of a level. There are a range of different experiences that learners need to be exposed to before these can be achieved.

Experiences and Outcomes	Benchmarks
<p>When considering how to spend my money, I can source, compare, and contrast different contracts and services, discuss their advantages and disadvantages, and explain which offer best value to me. MNU 3-09a</p> <p>I can budget effectively, making use of technology and other methods, to manage money and plan for future expenses. MNU 3-09b</p>	<ul style="list-style-type: none"> • Demonstrates understanding of best value in relation to contracts and services when comparing products. • Chooses the best value for their personal situation and justifies choices. • Budgets effectively, using digital technology where appropriate, showing development of financial capability. • Demonstrates knowledge of financial terms, for example, debit/credit, APR, pa, direct debit/standing order and interest rate. • Converts between different currencies.

Effective learning and teaching approaches

Problems set in the context of money provide rich opportunities to develop skills across many different numeracy and mathematics curricular organisers. These include number and number processes, fractions, decimal fractions and percentages, measure, data analysis and chance and uncertainty. There are many links with other curriculum areas, some of which are detailed on page 47. Interdisciplinary learning projects can enrich learners' experiences, support them to make connections and develop the financial skills required for life and work.

Best Value

At third level learners should be given the opportunity to explore best value in relation to contracts and services. Learners can use online resources to investigate contracts and services such as mobile phone or SIM packages, gym or sports club membership, sporting events and season tickets, cinema passes, travel passes or streaming services.

Are the film passes good value for money?

Which pass is best value?



Annual unlimited film pass – £110.

Monthly unlimited film pass - £9.99

Ticket for one film - £8.20

How many films per year would you need to see to make the passes good value for money?

Finding the best deal*

Imagine you have a budget of £35 a month to buy a new mobile phone contract. What is the best deal you can find?

You could consider:

- the type of phone you want
- the make or model of the phone
- the features of the phone, for example the camera or size of memory
- how much data you might use
- any upfront cost
- any free gifts, for example a subscription to a music app or free accessories.

You might want to look at mobile phone retailers and comparison websites for some ideas.

Choose three contracts and collect and compare the information that will help you choose the best to suit your budget.

**Scotland Learns Task – Shopping and budgeting 1 – secondary*

Learners should be encouraged to explore options which are best suited to their own circumstances, or to a given scenario, and to explain and justify their decisions. This could be done through a written report or a digital presentation.

Financial capability

Learners should be given the opportunity to continue to develop their financial capability. They should explore and investigate an increased range of financial products and build on budgeting skills developed at second level. This should now incorporate investigating the cost of credit and debt, exploring earnings and deductions, and options for saving. Learners should be given time to discuss the advantages and disadvantages of a variety of products and the circumstances which may contribute to choices.

The [UK Strategy for Financial Wellbeing](#) sets a national goal to ensure that 150 000 more children and young people growing up in Scotland receive a meaningful financial education by 2030. The Money and Pensions Service has produced [financial education guidance for secondary schools](#) which highlights the links between financial education and Curriculum for Excellence, setting out how schools can improve the financial education they deliver, and signposting services and resources that can help.

Many of the resources highlighted in the second level section of this resource are also suitable for third level learners. In particular [MoneySense](#) has a wealth of free financial education programme resources including interactive activities, lesson plans and presentations for use in the classroom and activities, games and resources that help children learn about money at home.

Borrowing and payment activities

Types of borrowing

Investigate different ways to borrow and make a display showing the advantages, disadvantages, costs and benefits of:

- Bank loans
- Overdraft
- Buy now pay later offers
- Payment cards
- Payday lenders
- Credit Unions
- Student Loans

Keeping finances secure online

Investigate different types of online frauds and scams.

Create a presentation or leaflet detailing the different types of money fraud or scams you have investigated that might affect individuals and businesses and providing advice on how to stay safe.

Understanding payment methods

Explore the advantages, disadvantages, costs and benefits of:

- Debit cards
- Credit cards
- Store cards
- Pre-payment bank cards
- Smart cards such as mobile phone top-up, travel card or school lunch payment card.
- Gift and voucher cards
- Mobile payment services such as Google Pay, Apple Pay or Paypal.

Digital Currency

Investigate how Cryptocurrencies such as 'Bitcoin' are becoming a new way of exchanging and storing money digitally.

- What is Cryptocurrency? How does it work?
- How is it different to the way money has been traditionally used?
- Can you find some examples of existing Cryptocurrency? How much are they worth?
- What are the benefits and risks of using Cryptocurrency?

When discussing types of credit, it is important to be aware that access to credit can be dependant on personal circumstances. This may provide an opportunity to discuss aspects of social justice. In most cases there is not one clear cut best option for borrowing or for choice of payment method. Learners should be encouraged to think critically about the most appropriate option to suit a variety of scenarios. An awareness of the impact of credit history on credit options could be discussed in this context.

Budgeting

Learners should be encouraged to discuss the different local, colloquial and cultural terms used to describe 'income' and 'expenditure'. It may also be beneficial for learners to explore how their budget might change at different points in their lives.

Creating a budget

Scotland Learns Task – Importance of budgeting – third and fourth level

Create a table like this to explore a monthly or weekly budget:

Date	Description	Income	Expenditure	Balance

- What do the terms income and expenditure mean? Give 2 examples of each.
- What does the balance column show, and how is it calculated?
- State two reasons why budgeting is important to individuals, families, businesses, etc.
- What does the term 'over budget' mean? What type of number would you expect to see in the balance column if you had gone over budget?
- What do the terms 'in the red' and 'in the black' mean when considering the balance column?
- How often do you think you would need to complete a budgeting activity?

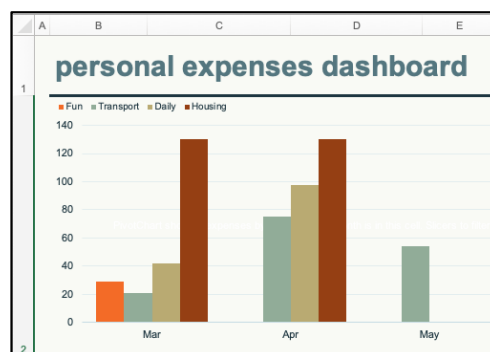
Now complete the table for your own budget or use the following information to create a budget for Samantha:

- On the 1st of May, Samantha gets £318.77 from her student maintenance grant, pays £135.00 for her rent and £68.52 for her food.
- On the 4th of May she visits town and spends £46.72 on clothing and £12.07 on lunch with a friend.
- She has a part time job, and her employer pays £178.31 into her account on the 8th May.
- Samantha pays a £22.68 heating bill on the 12th of May.
- She pays £42.50 for a concert ticket on the 22nd of May, and also books train tickets for getting to the concert costing £25.68.

Use your budget table to find the balance on her account on the 22nd of May.

Samantha usually pays £50 into a savings account at the end of each month. Does she have enough money in her account to do this? If so, how much does she now have to last her to her next maintenance grant payment on 1st June?

Digital tools such as Microsoft Excel or Google Sheets can be used to create a budget, and this can provide a good opportunity to explore the use of spreadsheets and to introduce the use of simple formulae. Charts and graphs can also be created to display for example, income vs expenditure or categories of expenditure.



Templates available in Microsoft Excel.

Interest Rates

Learners should be given the opportunity to solve a variety of problems relating to the impact of interest rates on the cost of borrowing and the return on savings and investments. This provides an opportunity to develop fluency in percentage calculations by applying skills in context.

Why do you think the accounts pay different rates of interest?

Why might you choose an account with a lower rate of interest?



The Scottish Bank

Account	Interest Rate(pa)
Instant Access Saver	1.5%
Fixed Rate Bond	2%
e-Saver 2021	0.75%

For each account calculate the interest earned if you deposit £500 for 1 year.

How much more interest will be paid in the Fixed bond compared to the e-Saver?

Online interest rate calculators are a useful way to explore the impact of interest rate changes on savings and investments. These are available on several websites, including [The Bank of England](https://www.bankofengland.org/).

Currency conversion

The conversion of money from one currency to another provides learners with an opportunity to develop their understanding of proportional reasoning. Rather than viewing this as a skill or topic in its own right it can be useful to think of it as simply an application of multiplication and division. Links could be made with problems involving conversions between units of measure. Working with familiar currencies and simple exchange rates is a good starting point, and bar models can provide a visual representation to aid understanding.

Using Bar Models to illustrate conversion calculations

£1 = \$1.30

Convert £4 to US Dollars

1.30	1.30	1.30	1.30
------	------	------	------

$$£4 = 4 \times \$1.30 = \$5.20$$

1 inch = 2.5cm

Convert 12.5cm to inches

12.5				
2.5	2.5	2.5	2.5	2.5

$$12.5\text{cm} = 12.5 \div 2.5 = 5\text{inches}$$

When the relationship has been established a table can be a useful way for learners to set out proportional reasoning problems.

Multiply by 1.16



Divide by 1.16

A meal out on holiday costs a family €54.
How much is this to the nearest penny?

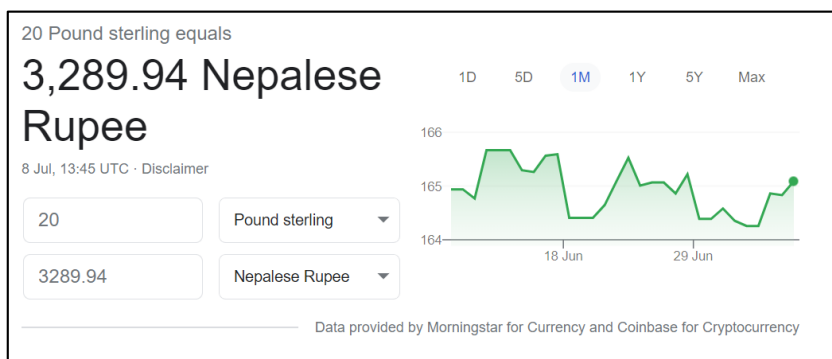
£	€
1	1.16
	54

$$\div 1.16$$

The meal cost £46.55 to the nearest penny.

When learners are confident, they can move on to using technology to carry out more complex calculations involving less familiar currencies. Learners should be made aware of the importance of currency conversion in commerce and industry.

An online currency converter will allow learners to explore a huge range of currencies. Whenever possible current exchange rates should be used. The relative values over time and the impact of how these have fluctuated could provide an interesting investigation or topic for discussion.



Google Currency Converter

Points to consider:

- When exploring everyday life contexts, it is important to expose learners to situations where there is not one correct answer. Learners should be encouraged to debate the pros and cons of different options and explain their choices.
- When discussing online banking and digital payment methods, there is an ideal opportunity to include references to online safety, in particular using robust passwords, biometric security and steps to avoid identity theft.

Reflective questions:

- How do we ensure that learners are able to explore situations involving money that are relevant to their experience and of interest to them?
- How do we ensure that the backgrounds of all learners are taken into account to ensure learning and teaching is sensitive and inclusive?
- How can we engage with parents and carers to encourage them to talk to their children about money? Do we have a clear understanding of parental confidence in this area?

Links across the curriculum:

Numeracy and Mathematics

- Use a variety of methods to solve problems in the context of money.
- Use rounding to estimate calculations.
- Calculate percentages with and without a calculator.
- Increase and decrease related quantities proportionally.
- Source information or collect data making use of digital technology.

Health and Wellbeing

- Learning to assess and manage risk, to protect myself and others, and reduce the potential for harm when possible.

Literacy and English

- Communicate information, ideas or opinions.
- Summarise findings or draw conclusions.

Social Studies

- Explore ethical issues relating to business practice and gain an understanding of how businesses help to satisfy needs.
- Understand the necessity for budgeting and determine ways to manage finance, considering possible investment opportunities, savings, risks or borrowing needs.

Technologies

- Awareness of how to keep myself safe and secure (when using digital technologies).

Fourth Level

The table below includes the experiences and outcomes related to 'Money' at fourth level. The experiences and outcomes should be used in the planning of learning, teaching and assessment. It is important to note that the benchmarks are designed to support teacher professional judgement in progress towards and achievement of a level. There are a range of different experiences that learners need to be exposed to before these can be achieved.

Experiences and Outcomes	Benchmarks
I can discuss and illustrate the facts I need to consider when determining what I can afford, in order to manage credit and debt and lead a responsible lifestyle. MNU 4-09a	<ul style="list-style-type: none">• Applies understanding of credit and debit in relation to earnings and deductions.• Uses budgeting skills to manage income effectively and justifies spending and saving choices.• Calculates net income by selecting appropriate information.• Compares a range of personal finance products.• Communicates the impact of financial decisions.• Applies knowledge of currency conversion to determine best value.
I can source information on earnings and deductions and use it when making calculations to determine net income. MNU 4-09b	
I can research, compare and contrast a range of personal finance products and, after making calculations, explain my preferred choices. MNU 4-09c	

Effective learning and teaching approaches

Earnings and deductions

At fourth level learners should begin to explore and gain an understanding of terms such as:

- Hourly rate
- Overtime rate
- Salary
- Income Tax
- Tax Credits
- National Insurance
- Net and gross income
- Commission
- Pension

Investigating positive destinations such as apprenticeships, college, university, and employment, including self-employment, can provide a starting point for discussion of the National Minimum Wage, the Living Wage, student finance, zero hours contracts and the gig economy.

Learners can also explore other sources of income such as benefits for those who cannot work, perhaps, for example, due to a disability or caring responsibilities.

Calculating earnings using hourly rates, overtime rates, and annual salary provide a less familiar context for interpreting and solving multistep problems using addition, subtraction, multiplication, and division. National Insurance, tax, commission calculations and salary increase or a reduction in hours worked provide a context for percentage calculations.

Investigating Payslips

Scotland Learns Task – Earnings and payslips – third and fourth level

DATE	EMPLOYEE NUMBER	TAX CODE	PAYMENT	PERIOD
31/03/20	ST 000364	S1250L	BACS	Month 3
NI Number		NB256238D		
	DEDUCTIONS		TOTALS TO DATE	
Basic Pay	Tax	120.87	Total Gross Pay	5,238.00
	NI	114.52	Taxable Pay	1,705.00
	Pension	52.86	Tax Paid	362.61
			Employee NI	343.56
			Employer NI	422.58
			Employee Pension	158.58
			Employer Pension	106.25
HOURS	GROSS PAY	DEDUCTIONS	NET PAY	
37	1,746.00	288.25	1,457.75	

Discussion questions

- What do the initials NI stand for, and what is this payment used for?
- What do the terms gross pay and net pay mean?
- What does the totals to date column show?
- There is a tax amount of £120.87 in the deductions column. What is this tax called? Why do you think we pay this tax?
- There is a tax code number shown S1250L. What is the meaning of this number?
- What is another name for net pay and how is it calculated?

Using the pay slip on the previous page as a template learners could be provided with some information and asked to calculate net income.

Learners should be aware that income tax is calculated slightly differently in Scotland than in the rest of the UK. Up to date information regarding Scottish Income Tax can be found [here](#).

Budget vs Salary

Provide learners with some scenarios which give details of monthly outgoings and ask them to estimate how much annual salary would be needed to cover these costs.



Job Search



Research local job opportunities and rates of pay. Choose a job and use the information available to calculate annual salary, estimate monthly/weekly take home pay and calculate other work-related costs such as travel.

This task could then be linked to a budget scenario or cost of living investigation.

It can be really beneficial for learners to explore the realistic cost of living in their local area and reflect on how this might affect their future goals.

The cost of living

Using estate agent and property websites, learners can investigate the cost of:

- housing – rent and buying in the local area, including flat or house shares
- mortgage costs for the average property in the area
- council tax
- average energy costs



They could then use the information they have gathered to create a budget for a single person or family living in a variety of different types of accommodation. They could also investigate average spends on basic food and internet, and home entertainment packages.

Personal Finance products

Learners should extend their knowledge of types of personal finance products and should be provided with opportunities to compare the cost of different options and to justify choices and recommendations based on their calculations.

Spreadsheets or online calculators could be used to investigate the impact of interest rate changes on the cost of borrowing and saving products.

It is useful to engage learners in discussions about the different types of insurances that are available such as home, car, life, travel and pet insurance as well as consumer products such as extended warranties.

Learners should come to understand the pros and cons of buying such products, and when their purchase is compulsory and when it is optional. Learners can discuss factors which affect the cost of insurance premiums and should become familiar with online tools that make the task of shopping around for the best deal easier.

Pet ownership



Investigate the cost of owning different types of pets, including the cost of pet insurance. Average costs for common treatments could be compared to the annual cost of insurance and information on the probability of a pet requiring treatment could be explored. Links could be made to common health issues with certain breeds of dog.

Car Insurance

Investigate what makes a good car insurance policy and what impacts the cost. Make a list, a poster or prepare a presentation to share the findings.



Currency conversion

At fourth level learners could work with less familiar currencies and conversion could involve converting between two non-sterling currencies. Solving problems in this context will provide learners with opportunities to apply a range of numeracy skills.

Examples comparing the cost of buying an item from a UK based retailer and from a non-UK retailer could be explored. As well as using the relevant exchange rate to compare the cost, learners could also explore shipping costs and import taxes. It may also be useful to discuss ethical issues such as environmental impact and employment conditions in order to make an informed decision.

Travel Money

You are planning to travel to Rome and expect to spend around €500 while you are there. Investigate the cost of:

- Buying currency before you travel (This could be from a bank, supermarket or online)
- Using an ATM while abroad
- Using a prepaid payment card
- Using debit or credit cards



You should consider exchange rates, fees for using ATMs or payment cards as well as other advantages and disadvantages of the different options.

Best buy bicycle

Pawel wants to buy a particular type of mountain bike online. The price in the UK, where he lives, is £899 and delivery is free. He checks the cost in Germany and in the USA. The prices are given below. He plans to pay by credit card. If he buys from abroad, he will need to pay a charge of 3% of the cost of the transaction (including delivery and VAT).

Germany
Price: €1079.99
Delivery: Free



USA
Price: \$1090
Delivery: \$30

In addition, VAT at 20% of the total cost will be charged on items imported from outside of the UK worth more than £39.

Use the current currency exchange rates to work out the total cost of buying the bike from each country and advise Pawel on his best option.

Family Learning

Parents and carers have an important role to play in supporting learners' development of financial capability.

*'Children receiving regular money, regardless of the amount, and having the opportunity to make financial decisions, as well as parents setting rules about money, are directly linked to better financial capability. Parent role modelling, such as showing children how to use a bank balance, and their attitudes towards teaching children about money also matter.'*⁶

It is important that schools help parents and carers to understand how important a role they can play. The school website, emails, newsletters, school apps, social media and networking events can be used to keep parents and carers involved and informed about the content and timing of financial education topics being covered in school.

We can provide practical advice, encouraging parents and carers to involve their children in household money use, planning and financial goal setting. Collaborative homework tasks could be set which encourage discussion about money and sharing upcoming financial education topics so that parents and carers know what is going to be covered. Hosting events that bring parents and children together could be considered.

Points to consider:

- Financial products continually evolve. When exploring everyday life contexts, it is important to ensure that we use relevant up to date information in examples. If using textbook examples these can be adapted as necessary.
- It is important to be sensitive to learners' financial backgrounds, to remain non-judgemental around financial choices and to promote an understanding of differing circumstances.

Reflective questions:

- **Are the tasks we provide open ended and engaging? Do they encourage learners to make evidence-based decisions? Are we providing opportunities for learners to use their knowledge and calculations to justify decisions?**
- **What opportunities can we provide that will make links across the curriculum? How can we plan with colleagues to deliver rich IDL tasks?**
- **How can we engage with parents and carers to encourage them to talk to their children about money? Do we have a clear understanding of parental confidence in this area?**

⁶ *Children and Young People and Financial Capability: Needs Analysis* (Money Advice Service, 2018)

Links across the curriculum:

Numeracy and Mathematics

- Rounds answers to a specified significant figure.
- Solves problems by carrying out calculations in unfamiliar contexts.
- Calculates percentage increase or decrease of an amount.
- Solve money problems which can be modelled by a linear relationship.
- Evaluate and interpret data.
- Compare numerical information in the context of money using measures of spread and centrality.

Health and Wellbeing

- Learning to assess and manage risk, to protect myself and others, and reduce the potential for harm when possible.
- By investigating different influences on the consumer, I can discuss how consumers can be influenced by external sources.

Literacy and English

- Communicate detailed information, ideas or opinions.
- Sum up ideas, issues, findings or conclusions.

Social Studies

- Examine how some economic factors can influence individuals, businesses or communities.
- Evaluate the suitability of finance options available for setting up and supporting different types of businesses
- Evaluate, prepare and present financial information and documents to assist in making appropriate financial decisions.

Technologies

- Explore the impact of cyber-crime for business and industry and the consequences this can have.

Glossary

Term	Definition
Account	Service where a financial institution lets you pay in money, get cash out and pay bills. The financial institution keeps a record of all transactions.
Assets	An item with economic value that an individual or organisation owns.
APR	(Annual Percentage Rate) The percentage cost of credit per year.
ATM	(Automated Teller Machine) Cash machine.
Balance	The amount of money owed or deposited
Bankrupt	Being legally released from the obligation to repay some or all debt in exchange for loss of certain assets.
Barter	Exchange goods or services for other goods or services without using money.
Borrow	To receive something on loan with the understanding that you will return it.
Budget	A spending plan or record of projected and actual income and expenses over a period of time.
Capital	The amount of money you originally have, save or invest.
Credit	An agreement to provide goods, services, or money in exchange for future payment.
Credit Union	A not-for-profit financial co-operative savings association that provides financial services to its member-owners.
Cryptocurrency	Virtual or digital currency not issued by governments.
Currency	A system of money used in a particular country.

Debit card	A payment card used to make purchases using money in your bank account.
Debt	Something owed.
Deposit	The act of putting money in an account.
Direct debit	Money electronically sent to or from your bank account to pay regular bills or to receive regular payments.
Discount	A reduction in cost.
Economy	The way a country manages its money and resources to produce, buy and sell goods and services.
Exchange rate	A number that is used to compare the value of money in two different countries.
Expenditure	The amount of money spent on something
Fraud	Intentional and illegal deception, misrepresentation, or concealment of information for financial gain.
Gig economy	An informal term for situations where people are hired for single projects or tasks or for short-term jobs.
Gross income	Total pay before taxes and other deductions are taken out.
Income	Money earned from investments and employment.
Inflation	An overall rise in the cost of goods and services.
Interest	The cost of borrowing money and/or the earnings from lending money. You earn interest when you deposit money in a savings account as you are lending your money to the bank.
Interest rate	The proportion of the loan or savings that is charged/paid. Usually expressed as a percentage.
Investment	Something that you spend money on that you expect will earn a financial return.
Loan	Money that needs to be repaid, usually with interest.
Loan shark	A person that lends money at a very high rate of interest.

Loss	The negative difference between money received and money spent.
Mortgage	A long-term loan to buy property or land.
Net income	Amount of money you are paid after taxes and deductions are taken out. Also called take home pay.
Overdrawn	When you don't have enough money in your account to pay for a transaction, but the bank pays for it anyway.
pa	(Per Annum) In a year.
Pay day loan	An easy access loan for a relatively small amount which is paid back over a short time period. Usually has a high rate of interest.
PAYE	The Pay As You Earn (PAYE) system is a method of paying income tax and national insurance contributions. Your employer deducts tax and national insurance contributions from your wages or occupational pension before paying you your wages or pension.
Profit	The positive difference between money received and money spent.
Saving	The process of setting income aside for future spending.
Standing order	A regular fixed amount that you instruct your bank to move from your account to another account. Could be to pay a regular bill or to transfer money to a savings account.
Tax	A government fee on business and individual income, activities or products which is then used to pay for government services like education or health.
Treasury	Government department in charge of public spending and economic policy.
Withdrawal	Taking money out of a bank account.

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