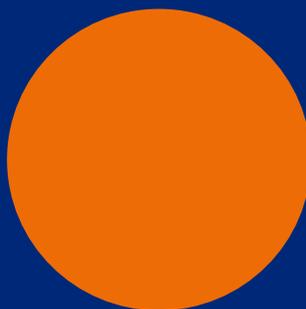
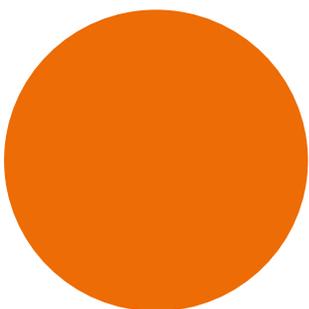
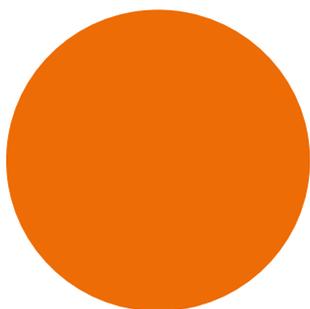
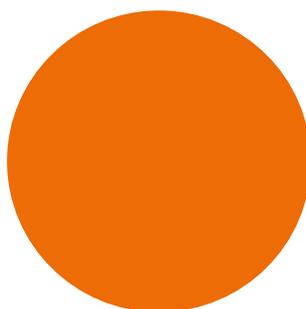
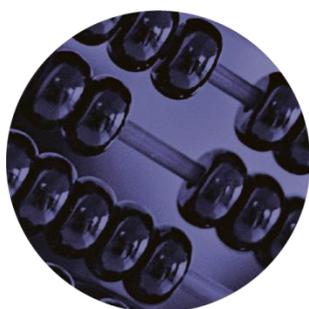
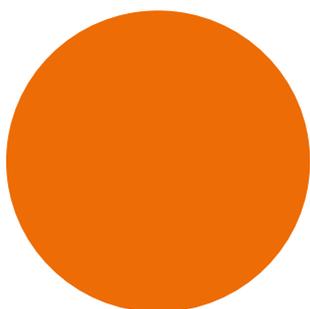


Nibud learning goals and competences

For children and adolescents



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Background

In 2008 the Dutch National Institute for Family Finance Information (Nibud) first drew up a document setting out learning goals and competences for children and adolescents when dealing with money. In late 2012 Nibud decided that the document needed to be revised.

Revision of learning goals and competences

Revising a document provides a good opportunity to assess current issues, new insights and experience gained. Practical implementation of learning goals and competences ever since 2008 has shown which things work and which need to be amended. At the same time, as we have indicated earlier, society is changing, and hence so are the financial skills that people require. However, this does not mean that the former learning goals are now obsolete, or that there are learning goals and competences that children and adolescents no longer need to know or learn. Furthermore, in spring 2012 Nibud standardised the competences for adults. It is important that the learning goals for children and adolescents should be in line with adult competences.

Nibud, 2013

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1 Introduction

1.1 Learning to deal with money

The purpose of educating children, at home and at school, is to enable them to live independent lives in society. That is why we teach them standards, values, knowledge and skills that are conducive to their broad personal and social development.

Learning to deal with money is important

Teaching children to deal with money is an important part of preparing them for their future, since almost every decision includes some kind of financial component – not only major, long-term decisions such as buying a home, but also such things as buying a birthday present or planning a holiday.

The number of financial decisions and financial responsibilities that children face increases as they get older. Teaching children and adolescents how to deal with money at an early age prepares them for a future in which they will have to take such decisions on their own.

The transition to independence

The transition to independence turns out to create financial problems. A study of intermediate vocational students (Nibud, 2011) has shown that 19% of those that live on their own have debts, averaging €2,400; of those that still live at home, only 10% have debts, averaging €800.

The transition to financial independence should not create problems. That is why it is important for children and adolescents to learn at an early stage how to take and maintain control of their financial situation. This is borne out by research. It turns out that adults who have learned how to deal with money from an early age are less likely to find themselves in financial difficulties (Madern & Van der Schors, 2012).

Financial problems and social participation

Financial problems are an obstacle to active participation in society. People with financial problems (Dessart & Kuylen, 1986, p. 328; Haster (ed.), 2009):

- become socially isolated at an earlier stage;
- feel more excluded;
- have fewer financial and other opportunities to participate in society, and hence find it more difficult to remain socially involved.

Debts can also have an adverse impact on physical and mental health (stress, depression, insomnia, aggression, physical health problems), which in turn affects social participation (Landelijk Platform Schuldhulpverlening, 2004; Dubois & Anderson, 2012; Drentea, 2000; Drentea & Lavrakas, 2000; Sullivan et al., 2000; Jacoby, 2002; Loonin & Plunkett, 2003).

The way to avoid such situations is financial education: teaching children and adolescents skills that help them prevent financial problems from arising in the first place.

Society: demanding, tempting and digital

Various developments in society make it all the more important for children to learn to deal with money at an early stage. Individual citizens are increasingly expected to take responsibility for their own lives. People must apply for allowances and benefits if they think they are entitled to them, and social security is not automatically available in all situations. In a few years' time students will no longer receive a basic grant from the government, but will have to find ways of paying for their own studies. At the same time, the temptations to spend more money are considerable:

- opportunities to buy things are increasing, with shops open longer and 24-hour-a-day online shopping;
- marketing is increasingly clever, with less and less transparent advertisements and temptations;
- online games tempt children and adolescents in all kinds of ways to make supposedly essential additional purchases;
- simple, rapid text-message services can cost users a great deal of money;
- there is considerable peer pressure to own popular branded products.

Finally, society is becoming more digital, in financial as well as other respects. Bills and bank statements are less and less frequently sent by post. Bank balances are checked online, energy and telecom providers send their bills by e-mail, and to find out how much you have spent on your mobile phone you have to log in to a personal account on the provider's website.

As a result, keeping track of your expenditure is increasingly something you have to do by yourself, proactively. Cash payment is also less frequent; money is becoming less visible. People turn out to spend more on their daily shopping if they pay by debit card or credit card rather than cash, because they no longer feel the 'pain of paying' (Dijkman & Zadeh, 2011).

In short, in today's society it is no longer so easy to keep control of your money. That is why children and adolescents need financial education. This will help them withstand temptation and cope financially once they are adults.

1.2 Goal and target group

This document is intended as a guide: (1) to show what children or adolescents should know or be capable of when dealing with money, and (2) to show what they should focus on at a given age.

Who is this document intended for?

1. Parents can use it as a guide when educating their children on financial and other matters.
2. Schools can use it when providing financial education.
3. Social workers and other professionals need to be aware of the learning goals and competences when dealing with and counselling children and adolescents.
4. The learning goals and competences can serve as a basis for the development of educational materials and financial information projects for children and adolescents and their parents.

The learning goals are included in the materials that Nibud itself publishes for the 6-18 age group and other publications whose development Nibud is (or has been) involved in.

1.3 Links with education

Nibud believes that the various aspects of learning how to deal with money should be among the main goals and attainment targets in education. However, this is not yet the case. We have therefore considered which main goals and attainment targets in primary and secondary education, special education and intermediate vocational education the learning goals overlap with.

Main goals and attainment targets

Because of the centralised examination system in Dutch education, learning goals are very specifically and precisely defined. The learning goals drawn up by Nibud leave somewhat more room for individual implementation and interpretation.

The following main goals and attainment targets overlap to some extent with Nibud's learning goals and skills.

Main goals for 'Arithmetic and mathematics' (primary education):

- **MAIN GOAL 29:** Pupils learn how to add, subtract, multiply and divide competently.
- **MAIN GOAL 33:** Pupils learn how to measure and calculate using units and measures of (for example) time, money, length, circumference, surface area, volume, weight, speed and temperature.

Main goals for 'Discovering yourself and the world' (primary education):

- **MAIN GOAL 35:** Pupils learn how to cope in social settings, as road users and as consumers.

Main goals for 'Arithmetic and mathematics' (special education):

- **MAIN GOAL 41:** Pupils learn the structure of and relationships between numbers, whole numbers, decimal fractions, common fractions, percentages and ratios in general terms, and how to use them in practical situations.
- **MAIN GOAL 48:** Pupils learn how to measure and calculate using units and measures of (for example) time, money, length, circumference, surface area, volume, weight, speed and temperature.

Main goals for 'Discovering yourself and the world' (special education):

- **MAIN GOAL 50:** Pupils learn how to cope in social settings, as road users and as consumers.

Main goals for 'Arithmetic and mathematics' (lower secondary education):

- **MAIN GOAL 22:** Pupils learn to grasp the structure of and relationships between positive and negative numbers, decimal fractions, common fractions, percentages and ratios, and how to use them in meaningful and practical situations.
- **MAIN GOAL 23:** Pupils learn how to calculate precisely and estimate sums and to reason on the basis of insight into accuracy, order of magnitude and margins that are appropriate in given situations.

Main goals for 'People and society' (lower secondary education):

- **MAIN GOAL 42:** Pupils learn how to recognise in their personal experiences and surroundings the effects of choices relating to work and health care, housing and recreation, consumption and budgeting, traffic and the environment.

- **MAIN GOAL 45:** Pupils learn about the distribution of prosperity and poverty throughout the world, and learn to see what this means for people and the environment and relate it to life, as well as their own lives, in the Netherlands.

Targets for ‘Arithmetic and mathematics’ (practical education):

- **TARGET 11:** Pupils can add, subtract, multiply and divide positive numbers in situations of importance to them.
- **TARGET 13:** Pupils can grasp arithmetical and mathematical concepts such as ‘more’ and ‘less’.
- **TARGET 14:** Pupils can perform simple operations with standard measurements of length, width, circumference, surface area, volume, time and money.

Targets for ‘Career and practical discovery’ (practical education):

- **TARGET 26:** Pupils can act safely and independently in carrying out practical assignments relating to housing, work and leisure.
- **TARGET 31:** Pupils learn through practical assignments how they can look after themselves and others, develop social skills and assume their own responsibilities within these.
- **TARGET 32:** Pupils can relate their own interests to their work.

Attainment targets for ‘Economics’ (upper pre-vocational secondary education):

- **EC/K/4A:** Candidates have an understanding of the theory of consumer behaviour, such as choices, needs, income and so on, as well as the functions of money such as borrowing and saving, and can apply this in specific cases.
- **EC/K/4B:** Candidates have an understanding of banking, such as obtaining foreign currency, types of saving and borrowing, as well as the motives and characteristics of insurance, and can use information from consumer organisations for this purpose.
- **EC/K/6:** Candidates have an understanding of the social, economic and financial functions of the government, and can apply this in specific cases.

Attainment targets for ‘Economics’ (upper senior general secondary education/pre-university education):

- **FIELD A, SUBFIELD 3A:** Candidates can recognise the economic perspectives and resulting interests of employees, employers, consumers, citizens, the government, banks and bodies representing specific social groups.

Competences for ‘Learning, career and citizenship’ (intermediate vocational education):

- **COMPETENCE 3.3:** Taking action on the basis of previous choices.
- **COMPETENCE 4.2:** Availing yourself of your rights as an employee.
- **CORE TASK 5:** Functioning as a critical consumer.
- **5.1** Obtaining information about the consumer market and taking account of your own wishes and capabilities.
- **5.2** Taking action to purchase products and services.
- **CORE TASK 7:** Looking after your own health.
- **7.1** Finding information about healthy lifestyles.
- **7.2** Making decisions on the basis of information, and acting accordingly.
- **7.3** Taking action to improve your health.

1.4 PISA

It is also very important that the learning goals should be in line with what is happening internationally in the financial field. Financial awareness and literacy are topics that are high on the international agenda. In 2012 the OECD (Organisation for Economic Cooperation and Development) conducted a pilot project to measure financial literacy in addition to reading skills, mathematical literacy and scientific literacy as part of the Programme for International Student Assessment (PISA). The Netherlands did not take part in the pilot project, but does plan to take part in the financial literacy component in 2015 (PISA is a triennial project). Given the political importance attached to the PISA findings, our learning goals are in line with the PISA framework and the knowledge and skills that it measures.

The OECD identifies four 'content areas' for financial literacy within PISA:

1. money and transactions;
2. planning and managing finances;
3. risk and reward;
4. financial landscape.

These content areas recur in the learning goals. The first two have been further subdivided in our learning goals, to remain in line with the adult competences. However, the description of what the OECD expects of pupils for each of these content areas recurs in our learning goals.

Besides the various content areas, PISA distinguishes between the contexts in which financial literacy is placed. PISA assesses knowledge and understanding of financial concepts, skills, motivation and trust, and use of knowledge and understanding in order to make effective decisions. Our learning goals mainly focus on the knowledge and skills that children and adolescents need to have.

1.5 Methodology

Our learning goals for dealing with money have been drawn up on the basis of Dutch and international literature on the subject and Nibud's studies of children's and adolescents' financial behaviour.

They are also based on Nibud's 35 years of expertise and experience in this area. The learning goals have been assessed by teachers, psychologists and educationists.

1.6 Structure of this document

The document begins with a description of the purpose and design of learning goals for dealing with money:

- how they relate to financial coping competences for adults;
- which topics the learning goals cover;
- which age groups they are aimed at.

The learning goals are then described for each topic and age group. Appendix 2 to this document describes the development of children and adolescents aged 5 to 18. This development underlies and determines what can and cannot be expected of children and adolescents when dealing with money.

2 Learning goals for dealing with money

Nibud has drawn up competences for adults when dealing with money. These are described as the skills that people need in order to consider themselves financially empowered.

A person is financially empowered if he makes well-considered choices in such a way that his finances are balanced, both in the short and long term. (Nibud, 2012).

The purpose of the learning goals is that children and adolescents learn to deal with money so that they can live independently and cope financially as adults.

Learning goals and competences

Children and adolescents are developing, encountering new situations for the first time and learning new skills, including financial ones. That is why we talk about learning goals rather than skills in their case.

In the case of skills the focus is on the final goal (the result): the skills that people should have acquired. In the case of learning goals, on the other hand, the focus is on the learning process, the development of knowledge and ability; as they develop, children and adolescents should get better and better at these things (Wesdorp et al., 2010).

2.1 Learning goals for each age group

Children of different ages are at different stages of development and hence have different basic knowledge and skills. The world they live in and their perceptions of it also differ greatly according to age group: 6-year-olds and 16-year-olds are concerned with very different things.

Levels

A learning-oriented goal applies to a specific level. Account has also been taken of this when drawing up the learning goals for dealing with money. The learning goals differ according to age group, so that they are in keeping with children's or adolescents' psychosocial and further development at a specific age.

However, the learning goals for the various age groups are related. They are progressive; the learning goals for older age groups are an extension and/or deepening of the goals for younger age groups.

Age groups

We have divided children and adolescents into the following age groups:

- 6-8: lower primary school
- 9-11: higher primary school
- 12-14: lower secondary school
- 15-17: upper secondary school/intermediate vocational school.

These groupings are not fixed or unchanging. The combination of age groups and types of school is only approximate. There are children who are already at secondary school by the time they are 11, but there are also 13-year-olds in the last year of primary school. In any case, every child is unique and develops at his or her own pace.

Cognitive development differs from child to child; some children can perform all kinds of

tasks by themselves at a young age, whereas others continue to need help for longer. This will affect what they can or cannot cope with when dealing with money. In addition, there will always be groups of children and adolescents in society with little or no likelihood of acquiring the skills described here. The description of the learning goals indicates what children or adolescents are capable of at a given age. However, this does not mean that they will actually display such behaviour in practice. Especially during puberty there is a great discrepancy between what adolescents are able to learn and the behaviour they display, given the cognitive and emotional development of the brain (Crone, 2008). The above age groupings are related to the child's or adolescent's development and environment and their impact on the required financial skills. A brief description of these cognitive developments and changes in environment is provided in Appendix 2.

From learning goal to final goal

The learning goals for each age group indicate the final goal for that age group, i.e. what children or adolescents should know and be capable of at the end of that stage of their lives. Within the age group it is a learning process towards the final goal.

Competences for adults

From the age of 18 onwards, Nibud's financial empowerment competences for adults apply. Details of these can be downloaded in English from <http://www.nibud.nl/over-het-nibud/organisatie/about-nibud.html>

2.2 Learning goals for each competence

Five main themes have been used in grouping the learning goals for children and adolescents. In the interests of continuity, these are mostly equivalent to the competences for adults. Only the 'Knowledge of financial products' competence has been rephrased as 'Dealing with financial risks'. This is because children and adolescents under 18 have little or nothing to do with more complex financial products, but do encounter various financial risks that affect the choices they make.

Core competences

The first three competences (mapping, responsible spending, anticipating) are the 'core competences' that are needed in every situation and must be followed in a continuous process. The other two (dealing with financial risks and having sufficient knowledge) are support competences for the first three. Dealing with financial risks is a support competence for responsible spending in specific situations. Having sufficient knowledge is a precondition for acquiring the skills associated with all the other competences.

Division into main themes, topics and learning goals for each topic

The final goal for each main theme is set out below: what adolescents should know and be capable of by the time they are 18. This final goal is the same as the description of the competence an adult should have. This is what children and adolescents work towards with the help of the learning goals. For each main theme we describe various topics that fall within it. Learning goals are stated for each of these topics according to age group. The specific descriptions for each age group are set out in the following sections.

Main theme 1: mapping

Adolescents are able to keep clear accounts so that they know where they stand and can find information easily. This allows them to meet payment obligations and understand how to keep their income and expenditure balanced.

Topics:

- Keeping proper accounts
- Performing transactions
- Earning money of your own
- Keeping track of income and expenditure

Main theme 2: responsible spending

Adolescents spend their income so that their income and expenditure are balanced in the short term. Their purchasing behaviour is in keeping with their personal preferences and what they can afford.

Topics:

- Making choices
- Controlling temptation
- Comparing prices and products

Main theme 3: anticipating

Adolescents understand that wishes and events have medium- and long-term financial consequences and they take account of this, among other things by assessing opportunities to save and borrow money and obtain insurance.

Topics

- Financial planning
- Saving
- Dealing with loans
- Obtaining insurance

Main theme 4: dealing with financial risks

Adolescents are aware of the financial risks associated with situations, events and financial products. In the light of what they can afford, they make choices that take account of their personal situation and preferences and the associated risks.

Topics:

- Assessing the financial consequences and risks of events and situations
- Assessing the risks and yields of products with financial consequences

Main theme 5: having sufficient knowledge (knowing the financial landscape)

Adolescents have all the relevant knowledge to balance their income and expenditure and keep them balanced in the short, medium and long term.

Topics:

- Knowing the value of money
- Having knowledge of financial concepts and topics
- Knowing their rights and duties as consumers and employees
- Being able to obtain advice and help on money matters



2.3 Learning goals age 6-8 (lower primary school)

Main theme 1: mapping

Keeping proper accounts

Not applicable

Performing transactions

- Children can count money and perform operations with it.
- They can pay small amounts in cash.
- They know what change is and can deal with it.
- They know the various way of paying and the associated concepts, such as cash, getting money from a cash dispenser (ATM) and a debit card.

Earning money of your own

- They know that people work in order to earn money.
-

Keeping track of income and expenditure

- They know how much money they have.

Main theme 2: responsible spending

Making choices

- They know that not everything is for sale.
- They know that you can make choices with the money you spend.
- They choose for themselves how they want to spend their pocket money or other money.
- They understand that you can spend money only once.

Controlling temptation

- They know that there are advertisements.
- They know that advertisements sometimes make things seem better than they really are.
- They know that there may be advertisements in free video games.

Comparing products and prices

- They know that some products are worth more than others.
- They know that not everything is equally expensive.

Main theme 3: anticipating

Financial planning

Not applicable.

Saving

- They know what saving is and can say what its advantages are.
- They can save money over short periods for a specific purpose.

Dealing with loans

Not applicable.

Obtaining insurance

Not applicable.

Main theme 4: dealing with financial risks**Assessing the financial consequences and risks of events and situations**

- They know why it is important to keep money safe.

Assessing the risks and yields of products with financial consequences

Not applicable.

Main theme 5: having sufficient knowledge (knowing the financial landscape)**Knowing the value of money**

- They can recognise the various euro coins and banknotes.
- They can arrange coins and banknotes in order of their value.
- They know that the same amount can be paid in different ways (with different coins and banknotes).
- They know that things cost money.
- They know the function of money and what it is for.
- They know that money has value, and act accordingly (for example, they keep it in a safe place and do not leave it lying around).

Having knowledge of financial concepts and topics

- They can recognise standard symbols relating to money, such as the euro sign (€) and a debit card.

Knowing their rights and duties as consumers and employees

Not applicable.

Being able to obtain advice and help on money matters

Not applicable.

2.4 Learning goals age 9-11 (upper primary school)

Main theme 1: mapping

Keeping proper accounts

- Children are able to keep important documents (paper or digital).
- They can recognise which documents (paper or digital) are important (certificates, bank statements, identity cards and so on).

Performing transactions

- They can make purchases of their own.
- They can calculate how much change they will get when they make a purchase.
- They know how to pay safely.
- They know that you can also pay by telephone (text message or landline).

Earning money of your own

- They know that you can do odd jobs for payment.
- They know that there are differences in income and that not everyone earns the same amount.

Keeping track of income and expenditure

- They can keep track of what they spend.

Main theme 2: responsible spending

Making choices

- They can adjust their wishes to what they can afford.
- They know that you can spend your money only once.
- They understand that different preferences and priorities lead to different choices.

Controlling temptation

- They know what advertising is and what it is for.
- They can recognise various kinds of advertising, such as advertisements on television and radio, in television programmes, in magazines, in the street and in shops, on the Internet, in apps and social media and in video games.
- They can explain why businesses advertise.
- They understand how and why businesses use social media.
- They understand that businesses offering 'free' things eventually want to/have to make money. They understand that businesses therefore make money in other ways than by charging money for the actual product.
- They understand that if you buy branded products you are also paying for the brand name.

Comparing products and prices

- They can arrange products in order of price, from cheap to expensive.
- They can compare prices before making a purchase.
- They can compare prices of products in terms of the same quantity/unit.
- They know that there are cheaper and more expensive versions (different brands) of the same product.

- They understand that different features (of a product) affect people's purchasing choices.
- They understand that if you buy certain products you have to buy additional products before you can use them.

Main theme 3: anticipating

Financial planning

- They can work out how long they will have to save for their intended purpose.

Saving

- They can save money over a longer period for a specific purpose.

Dealing with loans

- They know what borrowing money is.
- They know what borrowing money from a bank is.
- They know what it means to borrow money from other people.

Obtaining insurance

- They know that there are risks (things getting broken, theft, fire and so on) and that these risks have financial consequences.

Main theme 4: dealing with financial risks

Assessing the financial consequences and risks of events and situations

- They know that even if something is offered 'free' there may still be financial consequences attached to it.

Assessing the risks and yields of products with financial consequences

- They know what interest is.

Main theme 5: having sufficient knowledge (knowing the financial landscape)

Knowing the value of money

- They know that the price of a product reflects its value.
- They know the role of money (status and societal values).
- They can assess the value of money and products.
- They can put together a total amount in various ways.

Having knowledge of financial concepts and topics

- They know what the function of a bank is.
- They know the difference between a current account and a savings account.

Knowing their rights and duties as consumers and employees

Not applicable.

Being able to obtain advice and help on money matters

Not applicable.

2.5 Learning goals age 12-14 (lower secondary school)

Main theme 1: mapping

Keeping proper accounts

- Children can keep important documents (paper or digital) such as contracts, guarantee certificates, bank statements, income statements tidily and find them immediately.
- They can keep log-in data for websites and log-in pages safely.
- They can keep receipts either for guarantees or in order to exchange products.

Performing transactions

- They can make their payments on time.
- They can use a debit card safely.
- They are aware of the potential dangers when using a debit card.
- They can keep PIN numbers and other codes, log-in data and passwords secret.
- They know what to look out for to make sure a website and/or e-mail is safe and trustworthy.
- They are aware of the potential dangers when paying, such as phishing, money mules and skimming.
- They know what online banking is.

Earning money of your own

- They know how to claim back tax if they are employed.

Keeping track of income and expenditure

- They can check their expenditure.
- They can work out how much they spend each month, and what they spend it on.

Main theme 2: responsible spending

Making choices

- They understand the positive and negative consequences of their payment decisions.
- They know the difference between money that *has to* be spent and money that *can* be spent.
- They know which expenditure they cannot avoid.
- Before making a purchase, they can work out whether they can afford it.
- They do not spend more money than they have.
- They understand that their social environment affects their choices, and vice versa.

Controlling temptation

- They can recognise advertising, commerce and social pressure.
- They are aware of the impact of advertisements on their spending.
- They are aware of the influence of their friends and classmates on their spending.
- They can distinguish between their own wishes and wishes suggested by advertisements and other people.
- They can assess whether a 'special offer' really is one.
- They can make choices on the basis of what they need and/or already intend to buy, rather than the fact that it is a 'special offer'.

Comparing prices and products

- They can assess the price of a product.
- They can compare various products (or versions of a product) in terms of price and quality.
- They can obtain information (from shops and/or the Internet) before buying a product.
- They know whether a particular product is cheap or expensive compared with similar products on offer elsewhere.
- They can calculate the real overall costs of a purchase, including the purchase price and any associated products or costs.

Main theme 3: anticipating

Financial planning

- When making current purchases, they can take account of greater expenditure that they expect to incur and/or things they want to save money for.

Saving

- They know why it is a good idea to have money in reserve.
- They can save money for longer periods.
- They understand that saving money for something will take a certain amount of time.

Dealing with loans

- They can pay back money they have borrowed.
- They know what a debt is.
- They can say what the difference is between borrowing money and having debts.
- They know that there are various ways of borrowing money.

Obtaining insurance

- They know what insurance is and what it is for.

Main theme 4: dealing with financial risks

Assessing the financial consequences and risks of events and situations

- They know that there are terms and conditions attached to the purchase or use of a product or service (bought in a shop or online) and that these may have financial consequences.
- They can work out what financial consequences are attached to anything offered 'free'.

Assessing the risks and yields of products with financial consequences

- They know the risks involved in lending other people money.
- They understand the consequences of failing to pay back borrowed money.

Main theme 5: having sufficient knowledge (knowing the financial landscape)

Knowing the value of money

- They know that the price of a product is made up of various costs.
- They know that, over time, you cannot always continue to buy the same thing for the same amount of money.

Having knowledge of financial concepts and topics

Not applicable.

Knowing their rights and duties as consumers and employees

- If they are employed, they know that they and their employers must abide by certain rules.
- They know that there is a minimum wage for young people.
- They know the difference between reported (legal) and unreported (illegal) employment.
- They know what tax is and why you pay it.

Being able to obtain advice and help on money matters

Not applicable.

2.6 Learning goals age 15-17 (upper secondary school)

Main theme 1: mapping

Keeping proper accounts

- Adolescents can keep important documents (paper or digital) tidily without any assistance and on their own initiative.
- They can check their bank balances.
- They can check whether the transactions are correct.
- They can take account of terms of notice.
- They can make use of the information in their accounts, for instance when applying for allowances, submitting tax returns or making payments.

Performing transactions

- They can manage their own bank affairs.
- They can pay their bills on time.
- They can bank online safely.
- They can recognise abnormalities in their bank balances.
- They are aware of the potential dangers when using debit cards and banking online.
- They can check the safety and trustworthiness of websites where they make online purchases.

Earning money of your own

- They can claim back tax if they have been employed.
- They know which factors affect wage levels.
- If they are employed, they can check whether they are being paid at least the minimum wage for young people.
- If they are employed, they are able to find out about legislation on working hours and permitted kinds of work.
- If they are employed, they can find out about the relevant employment conditions and make use of them if the situation calls for it.

Keeping track of income and expenditure

- They can keep track of their income and expenditure.
- They can list their assets and debts.
- They can work out how much they have to/can spend over a given period.

Main theme 2: responsible spending

Making choices

- They can meet their payment obligations.
- They can take account of their payment obligations when spending money on other things.
- They can set priorities in their spending.
- They can decide whether they can afford a particular purchase.
- When making a purchase, they can take account of other expenditure they expect or intend to incur.
- They can adjust their purchasing behaviour to what they can afford.

- They can cut back on their expenditure if they have less money to spend (unexpectedly or otherwise).
- They can adjust their income and expenditure to planned or unplanned changes in their circumstances.

Controlling temptation

- They can withstand advertisements, influence by other people (social pressure) and other temptations.
- If they tend to spend money easily or on an impulse, they know how to control themselves.
- They can see through 'special offers'.

Comparing prices and products

- When purchasing a product or subscription they can calculate the fixed and variable costs and any additional costs (e.g. for administration or dispatch).
- When comparing products and subscriptions they can take account of all the fixed, variable and additional costs.
- When comparing and purchasing products they are able to read and take account of the 'small print' and the terms and conditions.
- When choosing a product or subscription they are able to consider not just the price and the quality, but also the terms and conditions and their own personal situation and wishes.
- They can develop their own criteria for purchasing products.

Main theme 3: anticipating

Financial planning

- They can take account of future expenditure in their current spending.
- They can set short-, medium- and long-term goals and take account of these in their expenditure.
- They know when they will have more or less expenditure (high- or low-expenditure months) and more or less income (high- or low-income months) and can take account of this in their spending.

Saving

- They can set money aside for unexpected costs or necessary expenditure.
- They can periodically set money aside.

Dealing with loans

- They know that you should only borrow money if you know that you can pay back the loan and the interest by the agreed date.
- They know the various ways of borrowing and the differences and similarities between them.
- They are able to consider alternatives to borrowing before deciding to borrow.
- They can name various kinds of debt.

Obtaining insurance

- They know how insurance works.
- They can name various kinds of insurance.

- They know whether a particular kind of insurance is compulsory, necessary, desirable or optional in their own situation.
- They can decide, on the basis of their personal situation and preferences, whether or not to take out a given optional insurance.

Main theme 4: dealing with financial risks

Assessing the financial consequences and risks of events and situations

- They know that changes can occur in the course of their lives (such as living on their own, living with a partner, becoming unemployed, having children or getting divorced) and that these changes can affect their financial situation.
- They can assess and reconsider open-ended subscriptions, and change or end them if necessary.

Assessing the risks and yields of products with financial consequences

- They know how risks and yields are related.
- They can name several ways of increasing assets, and know how these differ in terms of risk and yield.
- They know that when purchasing financial products (savings schemes, insurance, loans and so on) they need to consider not only the costs and yields but also the risks, the contract length and the terms and conditions.
- They are able to assess the short- and long-term financial risks, terms and conditions and costs of a financial or other product before purchasing it.
- They can make choices between saving, insurance and borrowing, based on their personal situation (financial or otherwise) and preferences.
- They know the financial and other consequences of having an overdraft, purchasing in instalments, taking out a loan and having a credit card.

Main theme 5: having sufficient knowledge (knowing the financial landscape)

Knowing the value of money

- They know what inflation is and what it implies.
- They know they will have fixed costs if they live on their own.
- They can calculate these fixed costs.
- They can make a realistic assessment of their future income.

Having knowledge of financial concepts and topics

- They know what financial responsibilities and obligations you have when you are 18.
- They are aware of the Dutch student funding system.
- They are aware of how student loans work.
- They know which legislation (on allowances, benefits and insurance) you may have to deal with when you are 18.

Knowing their rights and duties as consumers and employees

- They know the value of, and need for, education and training.
- They know the differences between working for an employer and working for yourself.
- They know what financial arrangements you have to make if you work for yourself.

Being able to obtain advice and help on money matters

- They know which bodies or organisations you can approach if you have certain questions about money.

Appendix 1: background to PISA

The Programme for International Student Assessment (PISA) is a triennial international survey of 15-year-olds' knowledge and skills conducted by the Organisation for European Co-operation and Development (OECD), in which pupils' reading skills, mathematical literacy and scientific literacy are tested.

In PISA, 'literacy' is seen as pupils' ability to apply knowledge and skills in a number of core areas in a broad range of situations where they encounter problems. The point is not so much that they should have learned something, but that they can apply it in everyday situations.

The PISA programme is therefore not designed to measure whether 15-year-olds know the material they have learned at school, but to what extent they can apply their knowledge and skills in everyday situations.

The purpose of PISA is to determine to what extent educational systems in the participating countries are training pupils to become independent citizens.

PISA 2012

A total of 67 countries, including the Netherlands, took part in PISA 2012. The Netherlands considers this very important, for it provides an opportunity to compare Dutch pupils' knowledge and skills with those in a wide range of other countries. The results will enable policymakers to make substantiated decisions in the field of education.

In 2012 the OECD also conducted a pilot project to measure financial literacy in addition to reading skills, mathematical literacy and scientific literacy. The Netherlands did not take part in this, but does plan to take part in the financial literacy component in 2015. Given the political importance attached to the PISA findings, our learning goals are in line with the PISA framework and the knowledge and skills that it measures.

The OECD defines financial literacy as follows: 'Financial literacy is knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life.'

Four content areas

PISA identifies four 'content areas' for measuring financial literacy:

- money and transactions;
- planning and managing finances;
- risk and reward;
- financial landscape.

More information on the background to and measurement of financial literacy in PISA can be found on the OECD website <http://www.oecd.org/pisa/pisaproducts/46962580.pdf> ('PISA 2012 Financial Literacy Assessment Framework').

Appendix 2: general development of children

The general developments in children that have influenced the stated learning goals for each age group are described below.

Lower primary school: the start of the child's financial career

This is where children embark on their financial careers. In the first year of primary school they can count to about 100 and perform operations with numbers up to 20. In the second year multiplication is introduced in specific contexts. In the third year they start arithmetic up to 1,000, and by the end of it they can work with figures up to about 10,000. In the third year they also start division, but always in relation to multiplication.

Understanding value

In lower primary school children (up to the third year) do not yet have any sense of the value of money, but there are some things they already know. For example, they can arrange coins in the right order. They also know that 5 cents is worth less than 5 euros. But if they find both coins, they cannot distinguish between them. They no longer know the difference, and think both coins have the same value. So they do not yet have a real sense of the value of money.

Monetary calculations in lower primary school

(Source: Malmberg)

In the first year schoolchildren learn to recognise some coins and banknotes. They can lay down amounts of money (pay with the right change) and read amounts of money. For example:

- All the coins and the 5- and 10-euro banknotes
- Laying down and reading amounts of money
- Paying with the right change

In the second year children learn to recognise all the coins and banknotes. They can pay with and give the right change. They also learn to compare amounts of money. Examples of what they learn at school:

- All the coins and banknotes up to 100 euros
- Paying with and giving the right change
- Comparing amounts of money

In the third year children learn to calculate amounts of money (pay and give change) in different situations.

Examples of what they learn at that stage:

- Paying with and giving the right change up to 100 euros
- Decimal points in amounts of money (2 euros + 5 cents = €2.05, and €0.35 = 0 euros + 35 cents)

- Doing monetary calculations in various practical situations

Upper primary school

In upper primary school (fourth to sixth years), children can already think somewhat more abstractly. They have enough knowledge and insight to place a message in its context. At this age the foundations are laid for opinions, views and behaviour. Guiding and influencing processes of awareness has a major impact on this group.

However, until the age of 12-13, children are not yet able to grasp long periods. There is therefore no point in expecting them to set money aside or plan financially over a long period (several months). While they are at primary school, weekly pocket money is more effective.

In upper primary school children start to get a clearer picture of the role of money. That is when they start to do paid odd jobs in and around the home.

Monetary calculations at upper primary school

(Source: Malmberg)

In the fourth year common and decimal fractions are introduced. Children learn to add, subtract and multiply amounts of money. They also learn how to estimate sums.

Examples of what they do at school:

- Multiplying amounts of money ($4 \times \text{€}2.35 = ???$ and $10 \times \text{€}3.50 = ???$)
- Adding up amounts of money ($\text{€}14.10 + \text{€}6.40 + \text{€}12.45 + \text{€}1.75 = ???$)
- Monetary calculations in various practical situations

In the fifth year children learn to use percentages. This helps them work out discounts and new prices.

Examples of what they learn at this stage:

- Giving change
- Monetary applications (such as comparing 'special offers');
- Estimating sums of money (will €50 be enough?)
- Multiplying amounts of money ($4 \times \text{€}2.95 = ???$; $200 \times \text{€}0.25 = ???$; $??? \times \text{€}3.50 = \text{€}7$; $??? \times \text{€}5.50 = \text{€}33$)
- Rounding amounts of money up or down ($\text{€}3.37$ is rounded up or down to ???).

In the sixth year, besides paying with the right change, giving change and performing operations with amounts of money, schoolchildren learn how to pay with convenient amounts. A new feature in the sixth year is operations involving compound units such as 'euros per kilogram'.

Examples of what children learn:

- Weight-to-price ratios (bananas cost €2.40 a kilogram, so what do 750 grams cost?)
- Rounding amounts of money up or down ($\text{€}3.48$ is rounded up or down to ???)
- Paying with convenient amounts so that a round amount of change can be

given.

Around the age of 12: increasing independence

A great deal changes around the age of 12. Children go to secondary school, and so they become more independent and their parents have less control over them. This is also the age at which banks allow Dutch children to use debit cards. Adolescents often start earning money while they are at lower secondary school, for example by working in the summer holidays. From the age of 13 onwards Dutch schoolchildren are officially allowed to do paid jobs, subject to rules about working hours and types of work. From the age of 12-13 children are more able to think in abstract terms. They can therefore save money for longer periods, and also receive 'invisible' money (via a bank account).

Puberty

Puberty also starts at this point, so that teenagers' brains are developing fast, especially between the ages of 11 and 16. An important factor is that emotional areas are created early on and are especially sensitive in teenage brains. In contrast, less use is made of the cognitive control area, which controls impulses, decision-making and planning (Crone, 2008).

This part of the brain is much more flexible in adolescents than in adults. Adolescents have to feel it is worth their while to use it. Their social environment also plays an important part here; this greatly determines whether or not it is used. Friends' and classmates' opinions are very important at this age. This development in the brain explains why teenagers take far more risks and are not yet able to assess the long-term consequences of their actions (Crone, 2012).

Increasing income

From the age of 15 schoolchildren are allowed to bank online on their own. The minimum wage for young people also applies from that age. Working and earning money become more important, and income increases. As a result, children have more money to spend. They become increasingly independent and detached from their parents. They also pay for more things by themselves.

18 years old: financial responsibility

From the age of 18, adolescents are financially responsible in their own right. They must pay arrears of payment, fines and debts personally – their parents are no longer liable. They can sign contracts, such as telephone contracts, by themselves. The same applies to insurance: from the age of 18 adolescents are required to take out health insurance. From now on they are also allowed to have a bank overdraft.

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