





## QAMT – February 25<sup>TH</sup> 2018

MATHS IN REAL LIFE
Early Years & Middle Schooling Conference



## **Today**

- Financial Basics Foundation
- What is Financial Literacy?
- Financial Literacy in the Mathematics Curriculum

## Our resources









#### Who are we?

#### http://www.financialbasics.org.au

- We are an independent not-for-profit organisation.
- We were established in 2002 by Collection House Ltd.
- Our current supporters are Suncorp, Collection House, QCoal and BDO.









- Our resources are used by approximately 4000 teachers in 1500 (more than 50%) Australian secondary and combined schools.
- Our resources and services are provided free of charge.









### What is Financial literacy?

Financial literacy is an essential everyday life skill. It means being able to understand and negotiate the financial landscape, manage money and financial risks effectively and responsibly, and pursue and attain financial and lifestyle goals. \*

\*National Financial Literacy Strategy 2014 - 2017









## Financial literacy is also:

- about behaviours and not just knowledge,
- the application of knowledge, understandings, skills and values, and
- an effective context for the delivery of understandings in business & economics, enterprise education, mathematics, life skills, vocational learning, and ICT.









Becoming financially literate, or building financial capability is generally understood to be an ongoing and dynamic process that takes into account personal circumstances, as well as cultural, societal and structural factors which can affect the way people interact with, and make decisions about money.









## **Underpinning trends**

- the growing variety and complexity of financial products available and rapid evolution of financial markets
- easier access to financial services offset by more risks being transferred to consumers
- the increasing invisibility of actual cash









## **Monash University Report**

- VCTA commissioned a report from Monash University, just released
- Title: 'Exploring secondary commerce teachers' opportunities and readiness to teach consumer, economic and financial literacy' within Years 7-10

Source: VCTA Professional Learning - http://bit.ly/2nhIIU8









## Implications for stakeholders

- Help redefine what it means to be financially capable in the 21<sup>st</sup> century
- 2. Lobby school leaders to prioritise innovative, real world programs
- 3. Find out what young people need from us and start measuring our progress
- 4. Focus on teacher practice and student learning
- **5. Fund professional teacher associations** and lead their communities









## Worth noting:

- There are an abundance of downloadable teaching and learning resources online.
- Focus on developing pedagogical practice to identify and meet local consumer, economic and financial literacy learning needs and interests in ways that are sensitive to students' financial realities.









#### **PISA 2015**

PISA is an international comparative assessment of student achievement directed by the OECD. It measures how well 15-year-olds are prepared to use the knowledge and skills in particular areas to meet real-life opportunities and challenges.









#### **PISA 2015 FINDINGS**

"... students in Australia perform worse than expected in financial literacy, based on the performance of students around the world in mathematics and reading."

(Financial literacy performance is strongly correlated with performance in mathematics and reading ....)









#### **PISA 2015 FINDINGS**

 "... students who hold a bank account perform better in financial literacy ..."

• "... disadvantaged students are overrepresented among low performers."



















#### What our data reveals .....

There is a wide gap between perceived and actual knowledge and understanding. Students

- don't understand financial concepts such as the effect of compound interest and how to use credit wisely.
- have limited knowledge of financial products such as insurance, superannuation and online banking.









## Implications for teachers

Home environments where financial issues are discussed have a positive impact on development of financial capability.

However, the reality is that not all students enjoy this advantage.









### Implications for teachers

Clearly, there is little space left to cram new content into crowded curricula, but **developing financial capability is not about content**, but more about providing a safe environment for young people to develop the skills and confidence to manage their finances.









#### **National Financial Literacy Strategy**

Key priorities for 2014 – 2017

- 1. Educate the next generation, particularly through the formal education system
- 2. Increase the use of free, impartial information, tools and resources
- 3. Provide quality targeted guidance and support
- 4. Strengthen co-ordination and effective partnerships
- 5. Improve research, measurement and evaluation









#### **Australian Curriculum – Mathematics**

- ACARA Vs 8.2 AAMT lobbied successfully to include financial literacy in the maths curriculum.
- Financial literacy as a context basically sits within number and algebra, but may have application in other content strands, such as:
- Measurement and geometry
- Statistics and probability









#### **Mathematics: Sequence of content 7-10**

Strand: Number and algebra

THREAD	YEAR 7	YEAR 8	YEAR 9	YEAR 10
MONEY AND	Investigate and	Solve problems	Solve problems	Connect the
FINANCIAL	calculate 'best	involving	involving simple	compound
MATHEMATICS	buys', with and	profit and loss,	interest	interest formula
	without digital	with and	(ACMNA211)	to repeated
	technologies	without digital		applications of
	(ACMNA174)	technologies		simple interest
		(ACMNA189)		using
				appropriate
				digital
				technologies
				(ACMNA229)









#### Mathematical contexts

- For most people, mathematical skills and knowledge are best developed when applied to real life contexts.
- Issues of relevance give meaning to mathematics and help students understand that mathematics is an important and valuable tool.









# SOME EXAMPLES









## Interpreting numerical, graphical & other information

- Credit card statements
- Exchange rate
- Stock exchange
- Online calculators
- Census data









## Making computations & checking results

- Compound interest
- Percentage
- GST
- Salaries and Wages
- Tax payable on income
- Superannuation









## Constructing & using financial models to make financial decisions

- Best buy, comparative shopping
- Mobile phone plans
- Collate and analyse consumer survey data

- Interpret cross sectional data
- Create templates for recording data on costs, etc.
- Health insurance









#### **Numeracy and #finlit education**

- Students find it difficult to develop numeracy in isolation.
- They need a context in which to work in order to develop competency and confidence in the three components of numeracy, all of which are all related to each other:









#### **Our resources**

- Professional development and support for teachers
- Extensive content and technical support for teachers available on website
- OFL (Operation Financial Literacy)
- FLIP (Financial Literacy in Practice)
- ESSI Money v2.0









## The good news ©

- FBF resources are provided FREE OF CHARGE to teachers in all Australian secondary schools.
- FBF resources are mapped to both the Australian Curriculum, and the National Consumer and Financial Literacy Framework.









#### **OPERATION FINANCIAL LITERACY**











## A flexible teaching resource

- Includes <u>detailed teacher notes</u> and <u>student</u> <u>worksheets</u>
- Written by Australian educators
- Reviewed by BEA
- Regularly updated









#### **OFL MODULES**

1.	Goal setting – having a financial plan	7. <b>Banking</b> – how does it all work?
2.	Income – where does it come from?	8. <b>Investing</b> – where do I start?
3.	<b>Budgeting</b> – managing your money	<ol><li>Financial planning – take charge of your future</li></ol>
4.	Insurance – managing risk	10. <b>Mobile phones</b> – being a wise consumer*
5.	Credit - making it work for you	11. Scams - don't be caught out
6.	<b>Taxation</b> – everyone pays	12. <b>SOS</b> – smart online spending









#### FINANCIAL LITERACY IN PRACTICE

Pop up <u>classroom activities</u> that address current financial issues and are supported by background information and detailed teacher notes.







































# Earning Saving Spending Investing

# Money

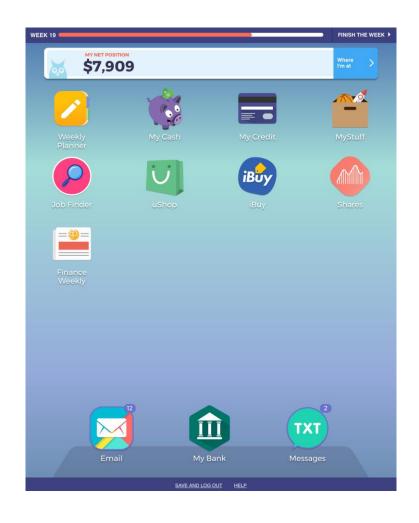








ESSI Money is an interactive online game that delivers an innovative app based environment for students to explore and use a range of basic financial management concepts.













supports students to practise real life financial transactions and experience the consequences in a safe, fun and challenging way. Students explore the concepts of earning, saving, spending and investing through playing the game.











- is designed to be used in the middle years.
- simulates financial transactions over a virtual 6 month period.
- assumes that the player is earning an income, living independently and making financial decisions.









# What happens in the game?

- The outcome of the game is the player's net worth after making a series of financial decisions over the 26 week period.
- Game events are random for every game played.
- The positive and negative consequences of financial decisions made over an extended period of time are clearly demonstrated.

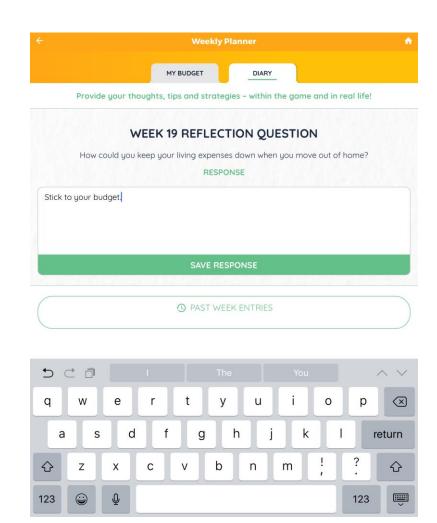








Students are encouraged to strategise and reflect on decisions made during the game by setting goals, creating a budget and recording regular diary entries.











scaffolding through the use of newspaper articles and quizzes, checking for understanding, and Howl (the how to guy) to create an authentic learning experience.











# Game activities give students opportunities to:

- Apply for jobs, earn an income and pay tax
- Transact and save across a range of bank accounts
- Create a budget and use it to inform play strategy
- Pay regular living expenses
- Buy and sell goods online using both cash and credit









# Game activities give students opportunities to:

- Operate a credit card account
- Invest in shares
- Set financial goals
- Experience the consequences of scams
- Manage bills
- Experience bankruptcy if liabilities cannot be paid



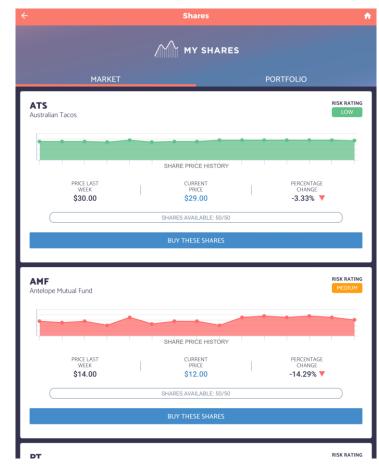






# **ESSI Money Plus**

- Shares app
- Mandatory quizzes
- More challenging odds





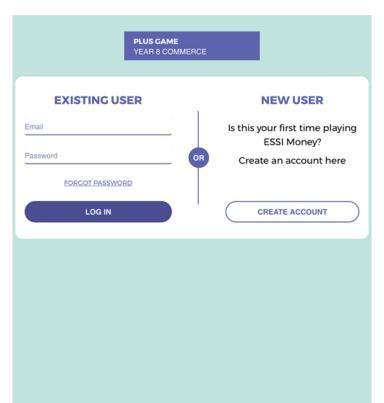




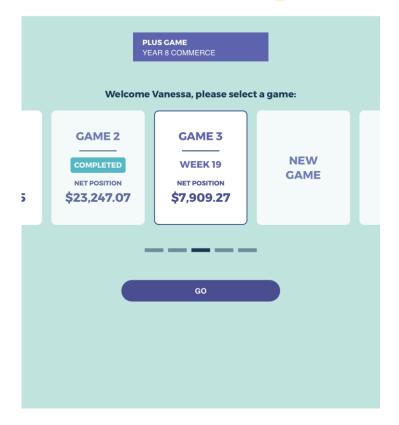


# Starting a game

















#### LET'S PLAY

#### **QAMT Plus**

http://bit.ly/2osbxdx

What a full link looks like:

https://www.essimoney.com.au/#/auth/login/6c c488d6-5afc-495d-998b-29b7a0d1cba2









# **Enhanced functions of the game**

- You are supported by <u>Teacher's Notes</u> and technical assistance via the Financial Basics website.
- You are able to <u>track your students</u> as they progress through the game.
- Detailed information is available through the teacher dashboard.









- To register a new game, log into your account and select the ESSI Money portal.
- All your game links appear on this page.
- Each game link provides 5 games each for 40 students.
- You also receive an email with the game and teacher dashboard link.
- Keep and use your <u>Quick Access Guide</u>!









Dear Damian,

The Financial Basics Foundation would like to thank you for registering your **FNQ Plus Game** class for ESSI Money.

Your ESSI Money Game Link appears below and also on your ESSI Money class management page when you login to the member's section of our website.

Your ESSI Money Game Link is:

https://www.essimoney.com.au/#/auth/login/a7c70bc8-cdc4-4ca1-8339-0994dc7c1119

Your students need to access the ESSI Money Game Link in order to play the game. Each student will be prompted to register as a New User the first time, or log in as an existing user once they've registered.

Each ESSI Money Game Link allows up to 40 students (users) to play 5 games each. If you need access for more than 40 users, simply complete the "add a new ESSI Money class" form on our website.

If the link above appears to be split across two or three lines, please make sure that all the characters are copied into your browser correctly; otherwise your students may not be able to access the game.

Use the ESSI Money Teacher Only link which appear below to track your students' progress. (This link also appears on your ESSI Money class management page when you login to the member's section of our website).

Your ESSI Money Teacher Only link is:

https://www.essimoney.com.au/reporting//#/groups/a7c70bc8-cdc4-4ca1-8339-0994dc7c1119/class

We hope that you and your students enjoy playing ESSI Money and we invite you to log onto our website and go to the Discussion Page if you have any feedback.









# How can you use ESSI Money in the classroom?

Throughout a unit of study,	Introduction and conclusion
linking to Finance Weekly	to a unit of study to
topics	measure shift in learning
Class competition, use leader	End of unit of study to
board to encourage students	measure learning
Stand-alone activity	Introduction to a unit/topic
Core unit of study component	Reward
Homework	Assessment









# A few suggestions

- Register each class separately.
- Students only need to register once with their school email.
- Forgotten passwords are easily retrieved.
- Use your school's virtual learning environment or url shortener to give students access to the game link.









#### How to access the resources

- You and your colleagues at your schools are invited to register for free FBF membership.
- financialbasics.org.au/register
- Download the complete suite of OFL modules.
- Register for as many ESSI Money class links as often as you need.









Please take the opportunity to give us some feedback.

info@financialbasics.org.au









#### Where to find us

- www.financialbasics.org.au
- Twitter: @Financial\_Basic
- Facebook Financial Basics Foundation
- LinkedIn Financial Basics Foundation









## FBF is proudly supported by:

**Presenting Partner** 

**Major Partner** 





**Founding Partner** 













## Recap - our resources

- Professional development and support for teachers
- Extensive content and technical support for teachers available on website
- OFL (Operation Financial Literacy)
- FLIP (Financial Literacy in Practice)
- ESSI Money v2.0





