# Learning outcomes: Lesson 5 Benefits and Risks of Investing in the Sharemarket and the Importance of Diversification 

## Students

Explain the importance of diversification and other factors, to reduce risk when investing.
Recommend role play being an advisor, recommending investment options, taking into account the financial circumstances of investors.
Analyse table and graphs with financial information to make informed decisions.

This lesson has a strong numeracy focus with students learning about the benefits of investing in the sharemarket and the importance of diversification to minimise risk and maximise return. Students explore the ideas of risk and return, using scenarios, various graphs, research and their knowledge to make investment decisions based on different life stages and their appetite for risk while taking into account other considerations such as liquidity, diversification, and the importance of investment goals when making decisions.

## General Capabilities

 related to this lesson- Numeracy

Critical and Creative Thinking
Personal and Social Capability

## Terminology

(Skill Directives)
Calculate - Ascertain/determine from given facts, figures or information.
Identify - Recognise and name; Establish or indicate who or what someone or something is.
Explain - Relate cause and effect; make the relationships between things evident; provide why and/or how.
Recommend - Provide reasons in favour.
Analyse - Identify components and the relationship between them; draw out and relate implications.

## Links to Curriculum

## Australian Curriculum

Subject: Economics and Business
Year 7
Year 8
Year 9
Year 10
Subject: Mathematics

- Year 7
- Year 8
- Year 9
- Year 10


## NSW

## Subject: Commerce

Core 1: Consumer and Financial Decisions
Core 2: Economic and Business
Environment
Option 1: Our Economy
Option 2: Investing
Option 7: Towards Independence
Subject: Stage 5 Mathematics
5.1: Financial Mathematics
5.2: Financial Mathematics

## Glossary

## Investing

Using money to buy something that has the potential to make more money.

## Saving

Putting money away and not spending it.

## Market volatility

A high possibility that shares will move up and down dramatically in value.

## Realised loss

When an asset is sold for a price below the price it was paid for initially.

## Speculative stocks

Shares which have a high potential for dramatic success or failure.

## Risk

The possibility of losing money on an investment.

## Diversification

A strategy that mixes a wide variety of investments within a portfolio for the purpose of minimising risk.

## Return

The amount of money made on an investment relative to how much the initial investment was worth.

## Capital Gains Tax

The tax collected by government when selling an asset that has increased in value.

## Learning outcomes: Lesson 5 Solutions

## Activity 1: Diversifying Risk - Industry

Analyse the above charts and fill in the below table:
Example:

| Top Performing Industry 2020/21 | Percentage Change |
| :--- | :--- |
| 1. Telecommunications | $28.46 \%$ |
| 2. Financials | $20.20 \%$ |
| 3. Industrials | $11.24 \%$ |


| Top Performing Industry 2020/21 | Percentage Change |
| :--- | :--- |
| 1. Energy | $39.71 \%$ |
| 2. Utilities | $24.19 \%$ |
| 3. Materials | $4.79 \%$ |

Using your knowledge and research skills, explain why there was a change in top performing industry from year to year?
Example: There could be many reasons why there could a change in the top performing industry for the year. It may be that the return to work after COVID has led to fuels being more in demand, leading to an increase in demand and therefore prices in the energy sector.

Activity 2 :
Experiment A: Starting cash $\$ 10,000$ (invested on only one company)
Example:

| Company | No. of shares | Day 1 Price | Day 2 Price | Day 3 Price | Day 4 Price | Day 5 Price | No. of shares $X$ Day 5 price = $\$$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ZZZ | 238 shares | \$42.00 | \$39.18 | \$39.64 | \$38.99 | \$39.17 | \$39.17 $\times 238=\$ 9,322.46$ |

Experiment B: Starting cash $\$ 10,000$ (invested over five companies within the one industry)
Example:

| Company | No. of shares | Day 1 Price | Day 2 Price | Day 3 Price | Day 4 Price | Day 5 Price | No. of shares $X$ <br> Day 5 price $=\$$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| ZZZ | 47 shares | $\$ 42.00$ | $\$ 39.18$ | $\$ 39.64$ | $\$ 38.99$ | $\$ 39.17$ | $\$ 1,840.99$ |
| TTT | 2,002 shares | $\$ 0.91$ | $\$ 0.92$ | $\$ 0.96$ | $\$ 0.98$ | $\$ 1.03$ | $\$ 2,062.06$ |
| BBB | 116 shares | $\$ 17.18$ | $\$ 17.76$ | $\$ 18.01$ | $\$ 18.32$ | $\$ 18.28$ | $\$ 2,120.48$ |
| CCC | 166 | $\$ 11.81$ | $\$ 11.78$ | $\$ 11.87$ | $\$ 12.01$ | $\$ 12.04$ | $\$ 1,998.64$ |
| DDD | 16 | $\$ 124.54$ | $\$ 123.77$ | $\$ 122.14$ | $\$ 122.16$ | $\$ 118.99$ | $\$ 1,903.84$ |

## Learning outcomes: Lesson 5 Solutions

Experiment C: Starting cash \$10,000 (invested over five companies from five different industries)
Example:

| Company | No. of shares | Day 1 Price | Day 2 Price | Day 3 Price | Day 4 Price | Day 5 Price | No. of shares $X$ <br> Day 5 price $=\$$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| ZZZ (Energy) | 47 shares | $\$ 42.00$ | $\$ 39.18$ | $\$ 39.64$ | $\$ 38.99$ | $\$ 39.17$ | $\$ 1,840.99$ |
| XYZ (Telecommunications) | 88 shares | $\$ 22.65$ | $\$ 22.68$ | $\$ 22.81$ | $\$ 22.61$ | $\$ 22.79$ | $\$ 2,005.52$ |
| PQR (Financial) | 873 shares | $\$ 1.98$ | $\$ 2.05$ | $\$ 2.07$ | $\$ 1.99$ | $\$ 1.97$ | $\$ 1,719.81$ |
| STU (Healthcare) | 920 shares | $\$ 2.15$ | $\$ 2.18$ | $\$ 2.54$ | $\$ 3.11$ | $\$ 3.13$ | $\$ 2,879.60$ |
| VWX (Consumer Staples) | 200 shares | $\$ 9.77$ | $\$ 9.65$ | $\$ 9.67$ | $\$ 9.44$ | $\$ 9.72$ | $\$ 1,944.00$ |

Identify the experiment that performed the best over the one week period.
Example: Experiment C was the most successful as there was a total of \$10,389.92 made for the week compared to Experiment A which produced $\$ 9,322.46$ and Experiment $B \$ 9,926.01$.

Experiments A \& B may have increased in value at a greater rate than Experiment C over the period of a week. If an investor had a longer period of time to invest, possibly over years, explain how this result may differ and why.

Example: There are many factors impacting on share price. Short term capital growth is not an indicator of long-term capital growth. Short term a business may have had positive news to the market causing its share price to increase overnight, or an industry may be performing very well over one year but then poorly the next year. It is important that an investor regularly researches what is happening in the market and in the economy, has a clear strategy for their portfolio (eg. High risk or low risk, capital growth or dividend growth) and understands financial information such as financial reports while following what is happening in the market and to companies invested in via the media.

## Activity 3

## Scenario examples

1. Alec should invest in $X Y Z$ Ltd, ABC Ltd, and DEF Ltd as these companies are relatively newer to the market but have a lot of potential as they have discovered new minerals/ have found a cure for diseases/have designed new technologies which have a lot of potential to make a lot of money. Their share price is also quite low, meaning Alec can purchase more shares.
2. Maya should invest in GHI Ltd, JKL Ltd, and MNO Ltd as these companies have been around for many decades and have not really fluctuated in price when looking at the graphs over a period of 10 years. Their return on invest is high though, paying dividends at over \$1 each for the last few years. They have had solid profit results over the last 5 years despite instability in the economy.
3. Serene should invest in PQR Ltd, STU Ltd, and VWX Ltd as these are stable companies who have shown steady growth when reviewing their graphs and looking at their financial reports. They are focussed on growth, retaining much of their profits and reinvesting them into the company to continue their expansion globally. They are industries that are known to be relatively stable and have shown continuous capital growth.

School Sharemarket Game

## Learning outcomes: Lesson 5 Solutions

## Activity 4: Personal Goal Setting

Example:

|  | Short-term Financial Goals | Long-term Financial Goals |
| :--- | :--- | :--- |
| Age 15 years | Eg. To buy a skateboard | Eg. To buy a new phone |
| Age 18 years | Eg. Buy a dress for my formal | Eg. Buy my first car |
| Age 21 years | Eg. Buy a new desk | Eg. Overseas holiday |
| Age 30 years | Eg. New furniture for home office | Eg. Deposit for my new home |
| Age 40 years | Eg. Pay school fees for children | Eg. Buy brand new mini-van |
| Age 50 years | Eg. Pay someone to repaint the house | Eg. Buy caravan to tour Australia |
| Age 67 years (retirement) | Eg. Pay for medical treatments | Eg. Enough money saved for retirement |

