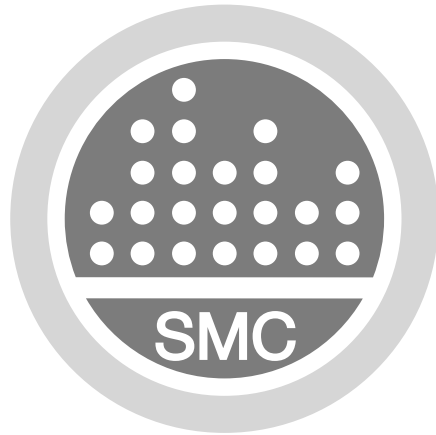




Stock Market Challenge:
Developing Skills, Enterprise
and Financial Capability

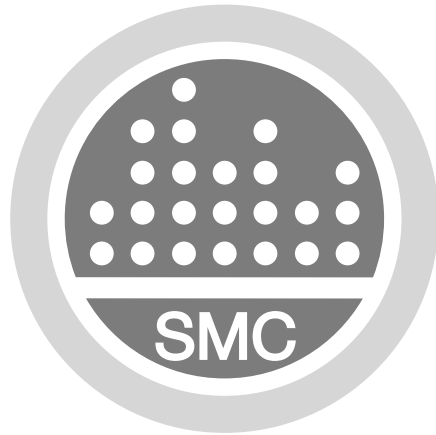
Trading Floor Game
Teacher's Guide

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1. Introduction



“Effective enterprise learning takes place in an environment where young people are given autonomy to tackle problems or issues that involve an element of risk and uncertainty about final outcomes, as well as reward for their successful resolution.”

The Davies Report on Enterprise Education
(Source: Teachernet)

The Trading Floor version of Stock Market Challenge has been designed to be used by schools as an enterprise education or cross-curricular activity for large groups.

The resource meets Ofsted’s criteria for delivering accepted learning outcomes for in-school enterprise activities.

Working in teams, students buy and sell shares and foreign exchange on a ‘live’ trading floor just like brokers do on trading floors and on-line all over the world every day.

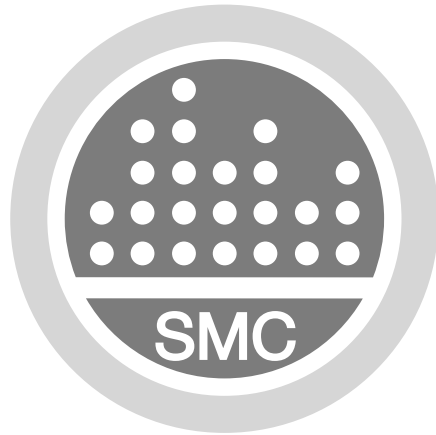
Stock Market Challenge is a rewarding and enjoyable activity that is a gateway to enterprise education and financial capability. It will also help your students develop their personal, learning, thinking and functional skills.

In recreating the excitement of a real trading floor, the activity provides a platform for your students to learn how to work together as a team, solve problems under pressure, analyse information and communicate effectively.

The Trading Floor game is easy to set-up and run for a year group of students and this guide explains what is required to ensure a successful outcome.

This version of the game is the same as the Dealing Room game in all but two respects: prices are quoted in round numbers and transactions are recorded using paper materials. These two features make the game simpler to play and easier to manage for larger groups.

2. Setting up the game



With the exception of the daily newspaper, all the news and price information students need to play Stock Market Challenge appears on one screen, the game interface, which is delivered online.

Once you have selected the Trading Floor game from the main Control Panel, you see a screen listing five days of trading. Click on any of the five days to navigate to the holding screen for each day's trading. The trading day starts when you click 'Open Trading Floor' at the bottom right of the screen.

2.1 How the game works

The aim of Stock Market Challenge is to maximise the value of investments in shares and dollars during five days of trading, Monday to Friday.

Each of the five days lasts around 23 minutes. With short breaks between days, the whole game takes around 2 hours to complete.

Each team has £15,000 to invest in a market comprising nine companies and the US dollar. The starting amount can be increased or decreased depending on how busy you want the trading floor to be: the more money that teams have, the greater their purchasing power and the more trades they will make.

All buying and selling takes place at the 'Current Price' displayed on screen. Share prices and the dollar's exchange rate are largely determined by information in

the daily newspaper, radio and TV news bulletins, and newswatches.

The newspaper is distributed at the beginning of each day. TV and radio news bulletins appear twice a day on the Market Screen, along with occasional news flashes and updates.

The winning team is the one with the highest-valued fund at the close of Friday's trading.

2.2 Roles in the game

There are four roles in the Trading Floor game, each with its own responsibilities and skills requirement:

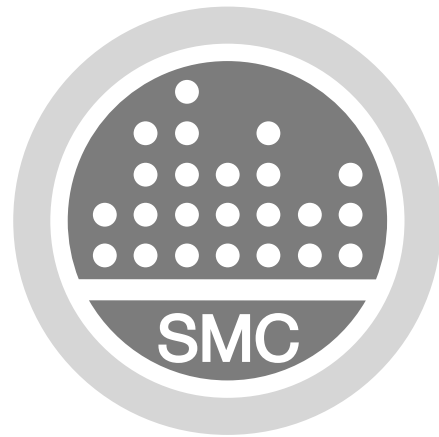
The **Finance Manager** has overall responsibility for managing the team's finances. The Transaction Analysis table is used to facilitate this process.

The **Investment Analyst** is responsible for tracking the contents of the team's fund using the Portfolio Analysis table.

The **Media Analyst** reads the newspaper, listens to the news bulletins and informs the rest of the team how the latest information may affect prices.

The **Floor Trader's** job is to work between the team's table and the Trading Area, buying and selling. He or she will work closely with the Investment Analyst to ensure the team is buying and selling at the right price and at the right time.

2. Setting up the game (cont.)



The Floor Trader must pass on the details of each transaction to the rest of the team so that the Transaction and Portfolio Analysis tables can be updated with the details.

2.3 Trading floor managers

If Stock Market Challenge is being run for a large group you will need help running the trading floor. If there isn't sufficient teaching staff available, running the trading floor and helping set up the activity is a good project for senior students to undertake.

As a rough guide, for 100 students (25 teams) you will need 8 Trading Floor Managers, whose job is to issue Share Certificates, Dollar Bills of Exchange and Banker's Drafts.

When the Floor Trader comes to the Trading Area and asks to buy or sell shares or dollars, a share price or exchange rate, and a buy or sell amount is agreed by referring to the current price on screen.

If the Floor Trader is buying shares, the Trading Floor Manager writes the name of the stock and number of shares on a Share Certificate.

For dollar transactions the Dollar Bill of Exchange is used. When teams buy dollars the Trading Floor Manager multiplies the amount of sterling (e.g. £1,000) by the exchange rate (e.g. 1.6) and writes this value on a Bill of Exchange (in this case \$1,600).

When teams sell dollars, they are given a Banker's Draft in return for their Dollar Bill of Exchange. The trader divides the amount of dollars written on the bill (\$1,600 in the above example) by the new exchange rate (e.g. 1.4) and gives the team a Banker's Draft in return (in this case for £1,142, rounded up to £1,200).

In order to keep calculations in round numbers, when teams sell dollars the Trading Floor Managers should round the amount on the Banker's Draft up to the nearest £100.

When teams are selling shares or dollars the value is written on the Banker's Draft. No bank notes are used during the game so the Banker's Draft is used to give change when teams invest less than the value of the Draft they hold. For example, a team buying £2,000 of shares with a £5,000 draft are given a £3,000 draft as change.

Trading Floor Managers must double-check each trade with the buyer/seller before finalising it. A trade is considered complete, and cannot be cancelled, once this has been done.

Calculators should be provided for the Trading Floor Managers. We also advise that transactions are recorded using a coloured, permanent marker pen so that teams aren't able to alter the amounts themselves.

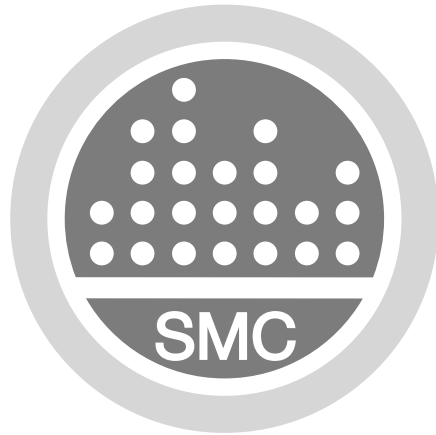
To make the processing of transactions more efficient, before the start of the game write out Banker's Drafts and Share Certificates of various denominations. As prices are displayed in round numbers, same-value transactions may be repeated, so Drafts, Certificates and Bills can be kept and reused whenever possible.

2.4 Room layout

Set up a table for each team of students. Set up one or more Trading Areas at the front or on one side of the room. This is where all 'buy' and 'sell' orders are placed by the Floor Traders and executed by the Trading Floor Managers.

Sectioning off the Trading Area with tables will make the process of buying and selling easier to manage. Position the screen(s) so that each team has a clear view from their table. The game screen should be visible from the Trading Area so that the Floor Traders and Trading Floor Managers can view the current prices.

2. Setting up the game (cont.)



2.5 Timings

Here is an approximate timetable for running Stock Market Challenge as an enterprise activity:

- 8.30 Set up the computer and screens. Set out the teams' tables and the Trading Area. Brief the Trading Floor Managers.
- 9.45 Students arrive in the hall. Hand out the Worksheet, Student's Guide and Monday's newspaper.
- 10.00 Introduction and brief explanation of the activity (using the Introductory Script in the pack if you wish).
- 10.10 Students choose their roles, discuss their strategy and decide on their initial investments.
- 10.30 Stock Market Challenge begins (Monday to Wednesday's trading).
- 11.50 Lunch.
- 12.50 Thursday's and Friday's trading.
- 13.40 Stock Market Challenge finishes.
- 13.40 Final scores added up.
- 13.45 Evaluation.
- 14.00 Winners announced.
- 14.00 Post-activity discussion (optional).

2.6 Presentation

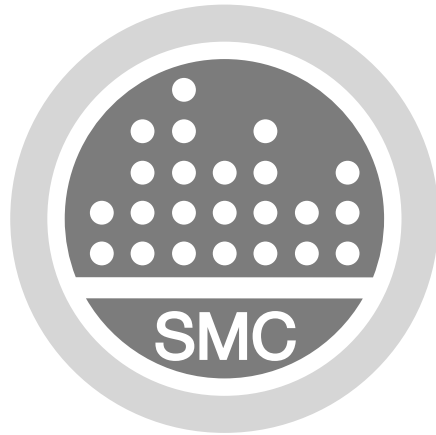
There is a looped sound track of dealing room background noise in the game programme. To create a more appropriate atmosphere for the game, we recommend playing a music soundtrack when the radio and TV news bulletins are not being broadcast.

You will need a sound desk with at least two channels to run both the music and game audio feeds.

For a more authentic trading floor atmosphere use a trading bell to mark the beginning and end of each day.

Students are provided with badges denoting each of the four roles in the game.

3. Technical requirements



The Trading Floor game requires approximately 300Kb of bandwidth.

You will need a link from the computer connected to the game screen to one or more projectors and screens, depending on the number of teams taking part and the size of the hall.

You will also need an audio feed to a PA system for the TV and radio news bulletins.

If you are playing a background music soundtrack you will need a sound desk with at least two channels with a separate audio feed from the music source.

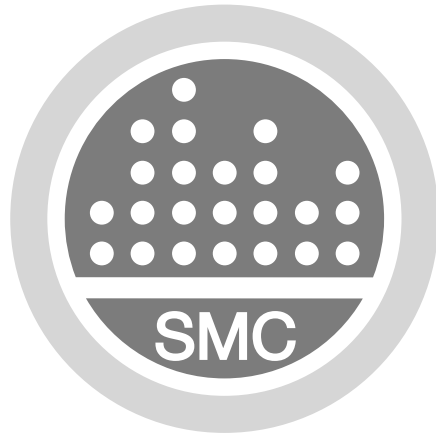
You will need to download Adobe Flash to view the game and Adobe Acrobat to view and print the game materials PDFs.

To display the game at full-screen use the F11 function or Alt+Return keys. These functions work in Internet Explorer but not all browsers support them.

MINIMUM SYSTEM REQUIREMENTS:

| | PC | MAC |
|------------------|----------------------------|-------------------------------|
| PROCESSOR | Pentium 3 (500MHz) | 500MHz PowerPC (G4 and later) |
| RAM | 256Mb | 256Mb |
| OPERATING SYSTEM | Windows XP or Vista | OSX 10.3 |
| RESOLUTION | 1024 x 768 | 1024 x 768 |
| AUDIO | Sound card | Sound card |
| GRAPHICS | Graphics card | Graphics card |
| SOFTWARE | Acrobat 7.0+ and Flash 9.0 | Acrobat 7.0+ and Flash 9.0 |

4. Game materials



You can print all the materials your students need to play Stock Market Challenge from the game control panel.

Banker's Draft, Share Certificate and Dollar Bill of Exchange

For a group of 100 students (25 teams) you will need to print/photocopy, for each team, 40 of each of the Banker's Draft and Share Certificate, and 20 of the Dollar Bill of Exchange.

To record a transaction, the Trading Floor Manager writes the amount of money, dollars or number of shares, on a Banker's Draft, Dollar Bill of Exchange or Share Certificate, and gives it to the Floor Trader making the purchase.

You should print out spare copies of each item in case teams require extra ones during the game. To make the processing of transactions more efficient, write out some Banker's Drafts and Share Certificates of various denominations in advance.

As all prices are in round numbers, same-value transactions may be repeated, so Trading Floor Managers may keep and reuse some Drafts, Certificates and Bills.

Transaction Analysis (10 pages per team)

The Finance Manager uses this table to track the team's fund. At the beginning of the game the initial fund value of £15,000 should be written at the top of the right hand column.

The Floor Trader should pass on the details of each transaction to the team so that this table can be updated with the details. (See the example below.)

Portfolio Analysis (5 pages per team)

The Investment Analyst uses the Portfolio Analysis form to keep track of the amount of shares and dollars held at any time during the game.

Using this tool, each team can calculate, at current prices, the value of its investments at any point in the trading day. (See the example below.)

Newspapers (1 per team for each day)

The daily newspaper is distributed at the beginning of each trading day.

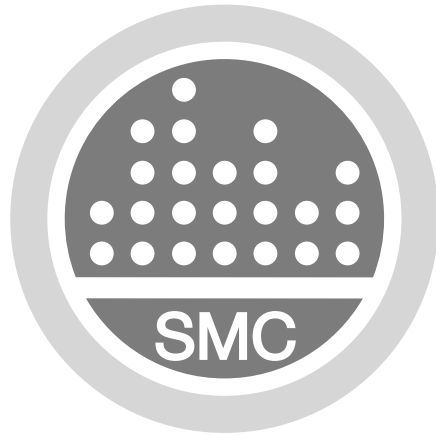
Other materials

Each team should be provided with pens, paper and calculators.

Badges

There is a badge for each of the four roles. To print the badges at 9cm x 5.3cm change your print scaling settings to 'None'.

5. Running the game



5.1 The experience of the trading floor

To maximize the impact of the game and your students' learning experience, we recommend that each trading day is run without interruption.

If teams are organised, with each team member aware of the responsibilities of their role, they will find they have ample time to make investment decisions and complete their transactions without the game having to be paused.

Stock Market Challenge aims to give your students an authentic experience of a trading floor, so the atmosphere can be noisy and chaotic.

Students should be encouraged to be actively involved in the game, moving

around the trading floor, checking prices, listening closely to the news bulletins and getting a feel for how the market is developing.

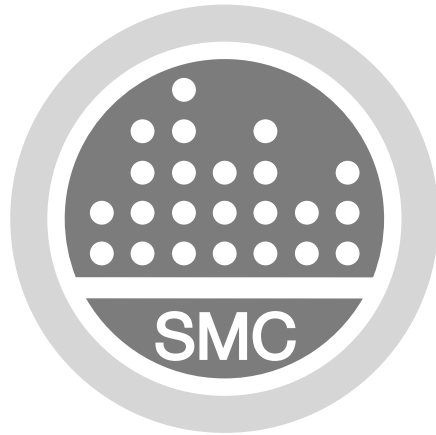
5.2 The trading day

When the trading bell rings to signal the start of the day, the game begins. The market opens at 8.00 and closes at 16.00 each day. Each day runs for around 23 minutes.

Each trading day runs automatically through a sequence of changing prices and news reports, as in the example below (please note that these are not the actual timings used in the game).

| GAME TIME | EVENT |
|--------------------|--|
| Pre-trading | Monday's newspaper, the Student's Guide and Worksheet are distributed to each team. Click on the Market Screen to display Monday's 'holding screen'. |
| 8:00 | The market opens. Opening prices & latest newspaper headlines on screen. |
| 8:15 | Price change |
| 8:20 | News in brief |
| 8:30 | Price change |
| 8:40 | News flash |
| 9:15 | TV news bulletin |
| 9:30 | Price change |
| 9:50 | Radio news bulletin |
| Etc. | Etc. |

5. Running the game (cont.)



To signal the end of each trading day, 30 seconds of music precedes the bell for the close of trading.

At the end of a day the programme automatically progresses to the 'Market Closed' position ready for the next day's trading.

5.3 The game screen

All the news and prices information you need to play Stock Market Challenge (apart from the daily newspaper) appears on a single screen.

The layout of the price information on screen for each company is shown below.

The key data to track during the game is the current price. All the other information on screen is there to help teams plan

ahead or calculate gains or losses that have been made.

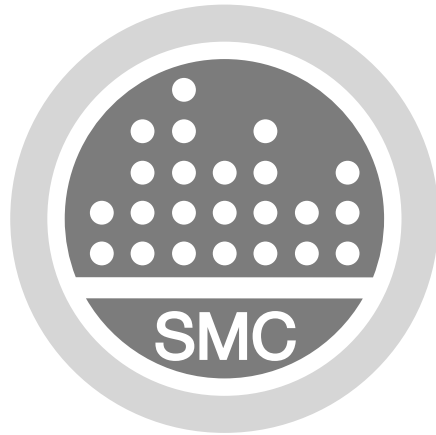
When a company's share price goes up or down, the arrow indicator in the second column from the left changes direction accordingly. A red arrow indicates a fall, a green arrow a rise.

A change in the dollar's exchange rate is indicated by a white arrow because whether a change is beneficial or not depends on whether a team is buying or selling.

During the TV and radio news bulletins, an abbreviated summary of prices is displayed on the left-hand side of the screen.

| COMPANY | MOVEMENT | CURRENT | PREVIOUS | +/-% | HIGH | LOW |
|---------|----------|---------|----------|------|------|-----|
| Aqualux | ↓ | 600 | 700 | -14% | 800 | 300 |

5. Running the game (cont.)



5.4 News and information

Players receive information affecting the companies' and dollar's price throughout the game.

The information comes from:

- a daily newspaper
- TV news
- radio news
- news flashes and news-in-brief updates

In the bottom left-hand of the screen the latest news headlines appear. Occasional news flashes also appear in this space. Periodically, news-in-brief updates appear in the bottom right-hand corner of the screen.

Decisions about which investments to make will be based largely on this information. This information can be either good or bad and can have a direct effect on share prices and/or the dollar's exchange rate.

5.5 Buying and selling shares

Dealing in shares is very simple. Share prices are quoted, bought and sold in multiples of 100. The price quoted on screen for the stock in the Current column is per 100 shares.

When teams want to buy shares in a particular stock they should approach one of the Trading Floor Managers and place their order. They will be given a Share Certificate in return for the cash they want to invest with the name of the stock and the amount of shares written on it.

When they want to sell shares, the process is reversed. They are given a Banker's Draft with the value of the shares they have sold written on.

There are no bank notes used in the game so the Banker's Draft is used to give change when teams invest less than the value of the Draft they hold. For example, if a team buys £4,000 of shares with £5,000 they are given a draft worth £1,000 as change.

5.6 Buying and selling dollars

The US dollar is bought and sold at its sterling exchange rate rather than at a price. The exchange rate can go up or down throughout the game.

When teams buy dollars they receive a Bill of Exchange, which can be converted back into sterling at any time. It is not possible to buy shares with dollars, only with sterling.

When dollars are bought the trader will multiply the amount of sterling (e.g. £1,000) by the exchange rate (e.g. 1.6) and write this value on a Dollar Bill of Exchange (in this case \$1,600).

When teams sell dollars, they are given a Banker's Draft in return for their Dollar Bill of Exchange. The trader will divide the amount of dollars written on the bill (\$1,600 in the above example) by the new exchange rate (e.g. 1.4) and give the team a Banker's Draft in return (in this case, for £1,142).

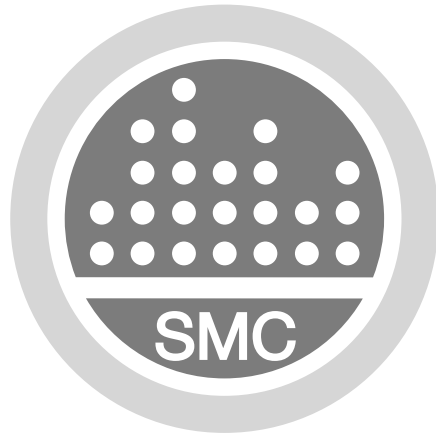
To simplify this transaction and to keep calculations in round numbers, the Trading Floor Managers round the amounts up to the nearest £100 when teams sell dollars. It is important to be aware that if the dollar exchange rate goes up (e.g. from 1.6 dollars to the pound to 1.7) this means the dollar is getting weaker and is worth fewer pounds. If the rate goes down (e.g. from 1.5 to 1.4) this means the dollar is getting stronger and is worth more pounds.

5.7 The end of the game

At the end of the game collect in each team's folder containing their Banker's Drafts, Share Certificates and Dollar Bills of Exchange.

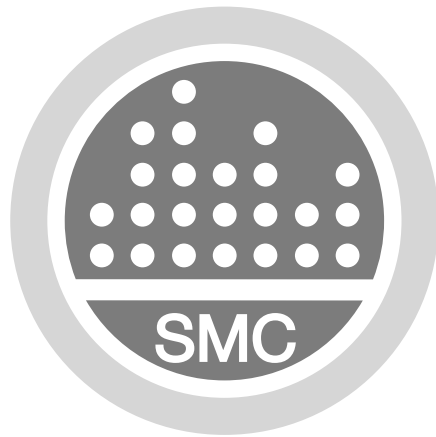
Add up the value of each fund at closing prices to reach a total close-of-trading score for each team.

6. Organiser's checklist



1. Connect to the Trading Floor game screen via the control panel. Connect the computer holding the game screen to the projector and screen.
2. Run an audio feed from the computer to the PA system. If you are using background music run a separate audio feed from the music source.
3. Set up the Trading Area, sectioned off by tables. Set up a table for each team.
4. Brief the Trading Floor Managers on their roles and give them each a calculator.
5. Divide the group into teams of 4 and give them their role badges. Print out and distribute the Student's Guide. Explain how the game works and introduce each of the roles.
6. Print out and distribute one Worksheet for each team.
7. Print out and one copy of each day's newspaper. Distribute Monday's newspaper to each team.
8. Print and distribute 5 Portfolio and 10 Transaction Analysis tables to each team.
9. Print or photocopy for each team, 40 of each of the Banker's Draft and Share Certificate, and 20 of the Dollar Bill of Exchange.
10. Print out spare copies of each of these items in case they are required during the game.
11. Give each team a folder with their team number/name on it.
12. Give each team 3 of the Banker's Drafts with £5,000 written on each. We recommend that the Trading Floor Managers use a permanent, coloured marker pen for all transactions so that teams aren't able to alter the amounts themselves.
13. Display the game's holding screen for Monday's trading.
14. When the teams and Trading Floor Managers are ready to begin click on 'Open Trading Floor' to begin Monday's trading.
15. During the game, distribute each day's newspaper before trading begins each day.
16. At the end of the game collect in each team's folder containing their Share Certificates, Banker's Drafts and Dollar Bills of Exchange.
17. Add up each team's shares, cash and dollars to get a total value for the fund.
18. While the scores are being added up distribute the evaluations for students to complete.

7. Learning outcomes



Stock Market Challenge has been designed to develop students' skills (personal, learning thinking and functional), enterprise education and financial capability.

Here we outline the enterprise- and skills-related learning outcomes that Stock Market Challenge delivers.

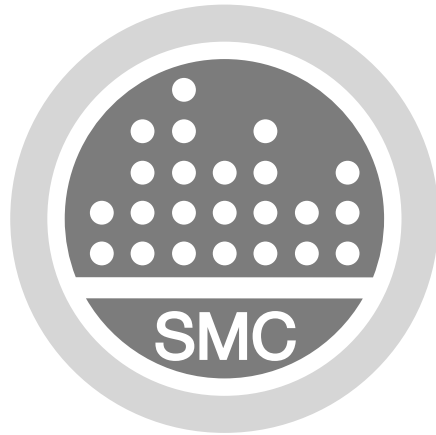
For more information about the resource's cross-curricular application and its value in specific subject areas, see the Learning page of the Stock Market Challenge website.

By taking part in Stock Market Challenge, your students will learn to:

- Work co-operatively with others, if playing in a team.
- Generate ideas, assess risks, solve problems and complete tasks.
- Undertake leadership of a group during the activity.
- Identify personal strengths and weaknesses.
- Suggest courses of action appropriate to improving personal enterprise skills.

| SKILLS SUMMARY | ENTERPRISE CAPABILITY | FINANCIAL CAPABILITY | BUSINESS AND ECONOMIC UNDERSTANDING |
|------------------------------------|---|--|--|
| Knowledge and understanding | Organisation, innovation, risk and personal effectiveness. | Managing money, budgeting, investments and personal risk management. | Markets, economic growth, organisation of business, the world of work and investigating simple hypotheses. |
| Skills | Decision-making, thinking and learning skills, leadership, managing risks, team working and key skills. | Budgeting and financial planning. | Decision-making and investigating simple hypotheses. |
| Attributes | Self-reliance, a 'can do' attitude, responsibility, ambition, open-mindedness, respect for evidence, pragmatism and commitment. | Taking responsibility for the outcomes of financial decisions. | Taking an interest in business and economic issues. |

8. Evaluation



To help you assess Stock Market Challenge's impact on your students we have written an evaluation which you can adapt to your specific learning objectives.

The evaluation has been structured to cover the cross-curricular areas of key skills (personal, learning, thinking and functional), financial capability and enterprise education.

Subject teachers may wish to add questions relating to their specific area of the curriculum.

Here is a summary of how the questions relate to the areas of the curriculum covered.

Skills

| | |
|-------------------------|-------------|
| Independent enquiry | 1, 9 & 10 |
| Creative thinking | 2 & 3 |
| Self-management | 7 & 8 |
| Effective participation | 13 & 14 |
| Reflective learning | 16, 17 & 18 |

Enterprise 4, 5 & 6

Financial Capability 11 & 12

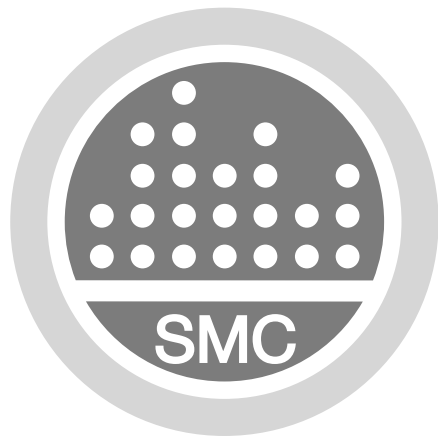
For more in-depth measurement and assessment, we recommend Enterprise Tracker's Grid and Folio products. Follow the link from the home page of the Stock Market Challenge website to see how the software can be used to evaluate the resource.

The Grid is used to assess and map Stock Market Challenge in the context of your school's overall learning strategy.

The Folio is used by students to record their experience of Stock Market Challenge and it allows them to update their record of achievement online.

8. Portfolio analysis (example)

| AQUALUX | BET LINK | FROZEN NORTH | KINETICA | NANOTEC | PLOSION | QUANTUM | SKP AIR | VISAGE | DOLLAR |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|
| B 200 | B 100 | B 100 | B 200 | B 300 | B 200 | B 200 | B 100 | B 200 | B 1,000 |
| S 100 | B 100 | S 100 | B 100 | B 100 | S 100 | B 200 | B 100 | S 100 | B 1,000 |
| T 100 | B 200 | T 0 | T 300 | B 100 | B 100 | B 200 | T 200 | T 100 | S 1,000 |
| B 300 | T 400 | | | S 200 | T 200 | S 200 | | B 100 | T 1,000 |
| T 400 | S 100 | | | T 300 | B 100 | T 400 | | T 200 | S 1,000 |
| | B 100 | | | | B 100 | | | | T 0 |
| | T 300 | | | | T 400 | | | | B 2,000 |
| | | | | | | | | | T 2,000 |



Key

B = Buy

S = Sell

T = Total of shares or dollars held.

Example

The team bought 200 Aqualux shares, sold 100, then bought another 300. The last figure in the column (400) is the total number of Aqualux shares currently held.

N.B. The amount in the Dollar column is the amount of dollars bought or sold, not its equivalent in pounds.

9. Transaction analysis (example)

| DAY | TIME | BUY/SELL | STOCK/DOLLAR | UNITS/AMOUNT OF DOLLARS | PRICE/ £=\$ RATE | TRADE VALUE £ | CASH AVAILABLE |
|--------|-------|----------|--------------|----------------------------|---------------------|------------------|-------------------|
| Monday | 8.00 | Buy | Aqualux | 200 | £500 | £1,000 | £14,000 |
| | 8.00 | Buy | Bet Link | 100 | £600 | £600 | £13,400 |
| | 8.00 | Buy | Kinetica | 300 | £700 | £2,100 | £11,300 |
| | 8.15 | Buy | Plosion | 500 | £600 | £3,000 | £8,300 |
| | 8.40 | Buy | Visage | 200 | £500 | £1,000 | £7,300 |
| | 8.40 | Buy | Dollar | 4,000 | 1.5 | £3,000 | £4,300 |
| | 9.10 | Sell | Aqualux | 100 | £600 | £600 | £4,900 |
| | 9.20 | Buy | Bet Link | 200 | £500 | £1,000 | £3,900 |
| | 10.05 | Buy | Nanotec | 300 | £700 | £2,100 | £1,800 |
| | 10.15 | Sell | Plosion | 400 | £500 | £2,000 | £3,800 |
| | 10.15 | Buy | Quantum | 200 | £900 | £1,800 | £2,000 |
| | 10.50 | Sell | Visage | 100 | £700 | £700 | £2,700 |
| | 10.50 | Buy | Nanotec | 100 | £600 | £600 | £2,100 |
| | 11.05 | Buy | Dollar | 1,700 | 1.7 | £1,000 | £1,100 |

