



Primary School Teaching Resources





Welcome to Chelsea's on-line teaching resource.

Chelsea Sugar is pleased to provide you with class materials which link to the **Social Studies Curriculum**. We are confident that it will be a valuable addition to your teaching programme and provide exciting and challenging tasks for your students.



Our education site is targeted at students in both primary and secondary schools. You will find lesson outlines and a variety of resources directly linked to the curriculum. Each lesson is based around the key skills and ideas from the “front end” of the curriculum document including key competencies and conceptual understandings.

The content of these lessons involve local study material about a well known New Zealand brand. Experienced classroom teachers have put the lessons together with literacy, the curriculum and student interest in mind. These resources can be downloaded in PDF using the links provided, video clips and power point presentations are included in the resource.

Sugar is an important part of the New Zealand lifestyle and Chelsea an important cultural brand. This is a case study that fits well with the achievement objectives. All four conceptual strands are covered – culture of sugar, the history and change of an iconic industry, the impact of Chelsea Sugar on places and the environment and the economic impact and innovation of this long established company are all featured in these resources.

We hope that all the information provided is useful and enjoyable to use as part of your lessons.



Social Inquiry Overview - Sweet As

A starter for you to finish...

Focus of learning/topic

- Place and Environment
- Sweet As - The World of Sugar!

Concepts

- Place
- Environment
- Change
- Trade
- Enterprise/Innovation
- Community

Conceptual Understandings

Considering Responses & Decisions

Reflecting and evaluating

Finding out information

- What is the Chelsea Sugar Refinery?
- What was Chelsea like in the past?
- How does Chelsea Sugar impact on the local communities?
- How do consumers interact with Chelsea?
- What resources does Chelsea use?

Exploring values and perspectives

So what?

So what do we now know about this?

So what does this mean for us/others?



Now what?

Now what further learning do we need?

Now what might be done about it?

The Social Studies Curriculum

What are the three key aspects when planning in the future...

The Essence of Social Studies

- Developing ideas about society.
- Participation in society.
- Understanding the personal and social significance of the ideas.

The AOs (Conceptual Understandings)

- | | |
|------------|--|
| AO1 | Understand how places are significant for individuals and groups. |
| AO2 | Understand how the past is important for people. |
| AO1 | Understand how places influence people and how people influence places. |
| AO2 | Understand how time and change affect people's lives. |
| AO1 | Understand how people make decisions about access to and use of resources. |

Social Inquiry

- Social Inquiry is different from an inquiry.
- It has 4 key parts:
- 1) The inquiry.
 - 2) The 'old' social decision making.
 - 3) Values and perspectives.
- AND
- 4) Social & personal significance.

The Key Competencies, Values and Principles

Thinking, language-symbols-text, managing self, relating to others, participating and contributing.

Level One

Lesson: Starting with Sugar

Focus of lesson / Activity:

AO1 Understand how places are significant for individuals and groups.
AO2 Understand how the past is important for people.

Essential Question:

Where in NZ is Sugar processed?
Why is Chelsea Sugar important?

Concepts: Location

Past/present, work, community.

Level 1: Key Competencies

Using language, symbols and text:

Students looking at visuals to help gain an understanding of sugar.

Thinking:

Using visual clues to help locate a NZ icon.

Relating to others:

Listening to others.
Sharing ideas.

Resources needed:

Sweet As PPT.
Magazines.
Glue and Scissors.

Lesson Outline:

View slides 1 to 6 Sweet As.
Using good questioning techniques.

Slide 1

What do you think we are going to be talking about?
What is in the picture?
What has the mother been doing?
What do you think the girl is going to do?
What might the mum be saying?

Slide 2

What is this a picture of?
What does sugar taste like?
Who likes sweet things?
What do we use sugar for?

Slide 3

What can you see in this picture?
What colour is the building?
This is a refinery - What do you think they do here?

Slide 4

What can you see in this picture?
Where do you think this place is?

Slide 5

What suburbs can you see on the map?

Slide 6

What suburb is Chelsea Sugar refinery in?

Other notes:

Students could use pictures and captions to make a mural.
Sugar tastes like.....
Collect magazine pictures of sweet products.

Level One

Lesson: Q & A in our Local Community

Focus of lesson / Activity:

AO1 Understand how places are significant for individuals and groups.
AO2 Understand how the past is important for people.

Essential Question:

What was Chelsea Sugar Refinery like in the past?

Concepts: Location

Community, Change.

Level 1: Key Competencies**Thinking:**

Students to think of questions to ask.

Relating to Others:

Students to use elders to help learn more about their community.

Resources needed:

Guest Speaker

Lesson Outline:

Find a guest speaker to come and talk to the class about the history of the area, in particular the impact of the Chelsea Refinery.

Ideas include:

- Someone who has worked at the Chelsea Sugar Refinery for many years.
- A grandparent of a student in the class.
- A guest speaker from the historic society.

BIRKENHEAD HISTORICAL SOCIETY Inc

PO Box 34419, Birkenhead 0746

Farrington House

44 Mahara Ave, Birkenhead, Auckland.

Open Sundays 2- 4pm or by arrangement for groups.

Phone: 09 483 7545

Web: www.historicbirkenhead.com

NORTH SHORE HISTORICAL SOCIETY

14 Piringa Court, 140 Lake Road, Northcote, North Shore City .

Web: www.geocities.com/nzhistory/North_Shore_Historical.htm

Students will work together as a class to create 10 questions to ask the guest speaker (given to them in advance) – then students will collect the answers during the Q & A session.

Other notes:

Students could work together to create a mural or picture mosaic of different aspects of life in the local community and how Chelsea Sugar Refinery was part of this.

Level One

Lesson: Now & Then

Focus of lesson / Activity:

AO1 Understand how places are significant for individuals and groups.

AO2 Understand how the past is important for people.

Essential Question:

What was Chelsea Sugar Refinery like in the past?

Concepts: Location

Past & Present, Work, Community, Change.

Level 1: Key Competencies**Using language symbols and text:**

Students looking at visuals, writing/dictating captions, reading captions.

Thinking:

Students deciding categories for pictures.

Students to thinking of captions.

Relating to Others:

Listening to others.

Sharing ideas.

Negotiating and working collaboratively.

Resources needed:

Printed copies from the “Now and Then” activity folder on the Chelsea website.

Paper for captions.

Felt pens.

Glue.

Lesson Outline:

Distribute a selection of photos for students to work with groups.

Sort pictures into past and present as a class and together write or dictate captions for pictures.

Discussion about time and changes – link to technology.

Other notes:

Students could use pictures and captions to make a mural.

Level One

Lesson: Now & Then Images







Level One

Lesson: Pretty Important Places...

Focus of lesson / Activity:

AO1 Understand how places are significant for individuals and groups.

AO2 Understand how the past is important for people.

Essential Question:

What are some important places in our wider community?

Concepts: Location

Place, Environment, Values, Family.

Level 1: Key Competencies**Using Language, Symbols and Text:**

Students using images to create a map of the important places in the local community.

Thinking:

Students to think about different places in their local community that are important to them.

Relating to Others:

Sharing ideas with each other.

Resources needed:

Sweet As PPT.

Local Area Map Resources (make into an OHT).

Local Area Photo Resources (images of important local area places).

Lesson Outline:

Show students a picture of the Chelsea Sugar Refinery park using the Sweet As PPT online. Ask students who has been here and why they like visiting this place.

- These ideas could include; the beach, lake, ducks, gardens, family time, bush walks, etc.

Ask students to think about other important places in the local community and why they like these places.

Show students the Local Area photos (print off resources, stick on card and cut out) of different important places in Auckland.

Create a map on classroom wall (see Local Area Maps to make an OHT or make your own) of the local area and as a class place the photos on the map.

Local Area Map



Local Area Photo Resources



Level Two

Lesson: Starting with Sugar

Focus of lesson / Activity:

Introduction to the topic.

Essential Question:

Where in NZ is Sugar processed ?

Why is Chelsea Sugar important?

Concepts: Location

Past/present, Work, Community.

Level 2: Key Competencies.

Using Language, Symbols and Text:

Students looking at visuals.

Thinking:

Using visual clues to help locate NZ icon.

Relating to Others:

Listening to others and sharing ideas.

Resources needed:

Sweet As PPT.

Magazines.

Glue and Scissors.

Lesson Outline:

View slides 1 to 6 Sweet As.

Using good questioning techniques.

Slide 1

What do you think we are going to be talking about?

What is in the picture?

What has the mother been doing?

What do you think the girl is going to do?

What might the mum be saying?

Slide 2:

What is this a picture of?

What does sugar taste like?

Who likes sweet things?

What do we use sugar for?

Slide 3:

What can you see in this picture?

What colour is the building?

This is a refinery - What do you think they do here?

Slide 4:

What can you see in this picture?

Where do you think this place is?

Slide 5

What suburbs can you see on the map?

Slide 6

What suburb is Chelsea Sugar refinery in?

Extra Slides 7 – 12 looking at sugar products

Other notes:

Students could use pictures and captions to make a mural.

Sugar tastes like.....

Collect magazine pictures of sweet products.

Level Two

Lesson: A day in the life of a Sugar Maker

Focus of lesson / Activity:

AO1 Understand how places influence people and how people influence places.

AO2 Understand how time and change affect people's lives.

Essential Question:

How has the Chelsea Sugar Refinery impacted on people over time?

Concepts: Location

Change, work, community.

Level 2: Key Competencies.

Using Language, Symbols and Text:

Student collecting information from stories.

Thinking:

Students thinking about aspects of life that are positive (good) and negative (bad).

Relating to Others:

Students learning about the lives of others.

Resources needed:

Stories from workers at the factory.

Continuum worksheet.

Lesson Outline:

Read the two stories from two different 'fictional' workers in the Chelsea Sugar Refinery. Read the stories to the students in class (option: show pictures from Sweet As PPT).

After stories have been read, discuss different aspects of daily life for workers at Chelsea. Using the continuum worksheet, ask students to make a judgment about whether an aspect is positive or negative (good or bad). They circle the smiley faces.

Discuss these as a class. What did everyone agree with and what differences are in the class.

Students to decide aspects of past and present – talk to their neighbours about the differences and similarities of life in the factory for these two people.

Other notes:

Students could interview grandparents and parents and see the similarities and differences of their working life.

Make your own diary entry of a worker in the factory.

A day in the life of a Sugar Worker



Hi, my name is George Wiki. I work at the Chelsea Sugar Refinery. I live just up the road on Heke Street. Each morning a whistle blows at 5.30am to wake me and the other workers up. I walk the short distance and begin work at 6.00am. My job is to work in the factory as a 'Fugelman' - I work with a spinning machine and use wooden scoops to scrape off raw sugar under the rim of the fugals. Working at the factory can be hard. It's so hot and dirty that some men who stamp dirt from the filter bags often work naked. We don't always wear a lot of clothing, there's no air conditioning or washing machines. It can be dangerous work too, some people don't wear shoes and there are plenty of hazards to watch out for. I work 12 hours a day and only get Sunday off, along with over 150 other men. Most people living in Birkenhead work at the Chelsea factory and there are plenty of jobs for everyone. It's so popular that young boys lie about their age to get work. I feel like it's a real community and we all know each other, working hard to get sacks of sugar to the general stores around New Zealand.

Hi there, my name is Joe Robinson. I have worked at the Chelsea Sugar Refinery for 10 years now. I live in Glenfield and drive to work every workday morning for a 8:30am start. I am a Process Maintenance worker and I really enjoy the variety of my job, fixing so many different machines and developing new ones. Safety is really important at the Refinery and we wear protective clothing and shoes at all times. The factory really cares about our health and well-being, we even have a gym. Today, over 250 work for Chelsea but machines do most of the simple tasks. Lots of machines do the processing, sorting, lifting and packaging the sugar. But men and women work to operate the machines, design new products, manage the money and generally run the factory. Things are different today, we don't know everyone in the local community because there are thousands of people rather than just a few hundred that live there. I do like coming to the park with my family on the weekends. We feed the ducks, eat fish and chips on the beach and go for walks in the park.



Worksheet: A day in the life of a Sugar Worker

1. How do you feel about?

Aspect of Daily Life			Circle the face that represents how you feel.
1	Living very near to the Chelsea Sugar Refinery.		 ↔ 
2	Wearing protective clothes and shoes.		 ↔ 
3	Working 12 hours a day, 6 days a week.		 ↔ 
4	Having a whistle wake you up at 5.30am every morning.		 ↔ 
5	Having machines do most of the simple tasks at the factory.		 ↔ 
6	Having a park on the Refinery grounds for everyone to use.		 ↔ 
7	Everyone knowing each other in the local community.		 ↔ 

2. Circle the aspects of life that are from the past and underline the aspects from today.

3. Get into pairs. One person will tell their neighbour the best things about living in the past and the other will talk about the best things about living and working in the present. You have 1 minute each to talk.

Level Two

Lesson: Now and Then

Focus of lesson / Activity:

AO1 Understand how places influence people and how people influence places.

AO2 Understand how time and change affect people's lives.

Essential Question:

What was Chelsea Sugar Refinery like in the past?

Concepts: Location

Past & Present, Work, Community, Change.

Level 2: Key Competencies.

Using Language, Symbols and Text:

Students looking at visuals, writing/dictating captions, reading captions.

Thinking:

Students deciding categories for pictures.

Students to thinking of captions.

Relating to Others:

Listening to others, Sharing ideas, Negotiating and working collaboratively

Resources needed:

Printed copies from the “Now and Then” activity folder on the Chelsea website.

Paper for captions.

Felt pens.

Glue.

Concept Worksheet.

Lesson Outline:

Distribute a selection of photos for students to work with in groups.

Students to sort pictures into past and present and in groups they write or dictate captions for pictures.

Class discussion should involve how Chelsea has changed the way it produces sugar and the impacts these changes have on people – i.e think about jobs, safety, technology, resources, clothing, etc.

Literacy activity – sorting the concepts into groups – worksheet attached.

Other notes:

Students could use pictures and captions to make a mural.

Worksheet: A day in the life of a Sugar Worker

Activity: Cut out the terms and sort into groups and give each group a heading.

sugar	golden syrup	Duck Creek	maple syrup
park	port	refinery	diabetes
baking	lollies	jam	Birkenhead
cooking	factory	wharf	lake
river	cane	ships	dam
trucks	Colonial Road	sacks	machines



Level Three

Lesson: Changing Chelsea

Focus of lesson / Activity:

AO1 Understand how people make decisions about access to and use of resources.

Essential Question:

What decisions has Chelsea made in the past that influences people today?

Concepts: Location

Work, Community, Change, Resources, Trade, Commodity, Consumption.

Level 3: Key Competencies**Using Language, Symbols and Text:**

Using visual/written and oral language.

Thinking:

Recalling prior knowledge.

Relating to Others:

Listening to others prior knowledge, sharing ideas, negotiating and working collaboratively, working effectively.

Resources needed:

Laptop.
Sweet As powerpoint.
Sugar Match worksheet.
Glue and Scissors.
Literacy Worksheets.
Candy Lane History Road Sheet.
125 Years Of Chelsea clip.

Lesson Outline:**PART ONE:**

Students to view the Sweet As powerpoint slides 1 - 12 which look at the background information of sugar and introduces Chelsea Sugar Refinery.

The Sweet As PPT offers an introduction to Sugar and connects the product to student's world.

Complete Sugar Match activity – looking at the different products Chelsea makes – students to cut and match the product picture with the description. Use the discussion starter to talk about the different products and what they know about Chelsea sugar.

Class discussion about key economic concepts such as market, trade, tariff, commodity, goods and services etc.

Discuss each slide and encourage student participation.

Other literacy activities include the vocabulary sheet and crossword.

PART TWO:

Students to view the Sweet As powerpoint slides 13 - 28 OR watch the 125 Years of Chelsea clip (for extension).

Discuss the slides and look at the historical developments and initiatives of this iconic industry.

Complete Candy Lane History Road worksheet provided.

Other notes:

Use picture folder for extra resources for: Student writing, mural, brochure, then and now page.

Worksheet: Sugar Match

Activity: Cut out the products below and match with the correct description



This sugar has fine crystals and is produced by grading the sugar from the driers and conditioner. It is well dried which keeps its free flowing qualities. This is also ideal for making meringues or pavlova.

This is the most commonly used and is the main sugar we buy from the supermarket. The crystals are a uniform size which makes it ideal for confectionery manufacture and baking.

This is made from sugar syrups that have a high mineral and colour content. This syrup has a rich golden colour and distinctive flavour.

This is natural granulated sugar, with a syrup coating on the crystals giving them a golden brown appearance. This is used in coffee or baking providing subtle changes to colour and flavour of the product.

This is sugar which has been ground to produce a fine powdered sugar. We are all familiar with this product because we use it to make icing at home but it is also ideal for making short bread and cream fillings in biscuits. In the food industry it is used in the manufacture of confectionery such as marshmallows and peppermints.

It has a low GI of 50 compared to white sugar which has a medium GI of 65. This product is good for people who are concerned about sugar levels in their blood and want to maintain consistent energy levels.

Worksheet: Discussion Starters

"I think that..."

"I was confused by..."

"I supported..."

"I would like to find out more about..."

"I would argue that..."

"I disagree about..."

"Another idea is..."

"I like...."

"I don't like..."

"One thing that really interested me was..."

"I'm unsure about..."

"Another point to consider is..."



Worksheet: Vocabulary Builder 1

Word	I think it means	I know it means
Shanty town		
Engineer		
Producer		
Monopoly		
Tariff		
Importing		
Condemned		
Consumer		
Chemists/pharmacist		
Commodity		
Regulations		
Markets		
Competition		
Brand		
Deregulated		
Volatile		
Export		
Wholesale		
Domestic		
Import		

Worksheet: Vocabulary Builder 2

Activity: Read the “Sugar What Where When” factsheet (PDF format)

Word	I think it means	I know it means
Sucrose		
Carbohydrates		
Obesity		
BMI		
Fructose		
Maltose		
Lactose		
Calorie		



Worksheet: Synonyms

Activity: Read the Business of Sugar handout.

Match the synonym in column two by writing the letter next to the term.

Column One	Correct letter	Column Two
Deregulated		A. To bring into the country
Tariff		B. To sell
Quotas		C. The amount allocated
Commodity		D. Customer
Retail		E. Local market
Domestic		F. Unstable/unpredictable
Import		G. Goods produced
Export		H. Tax/duty
Competition		I. To send overseas
Volatile		J. Rivalry/opposition
Consumer		K. Not controlled

Worksheet: Candy Lane - A history road

Activity: Watch the powerpoint presentation and write down the important events that happened on the dates of Candy Lane.



1883

1884

1886

1905

1909

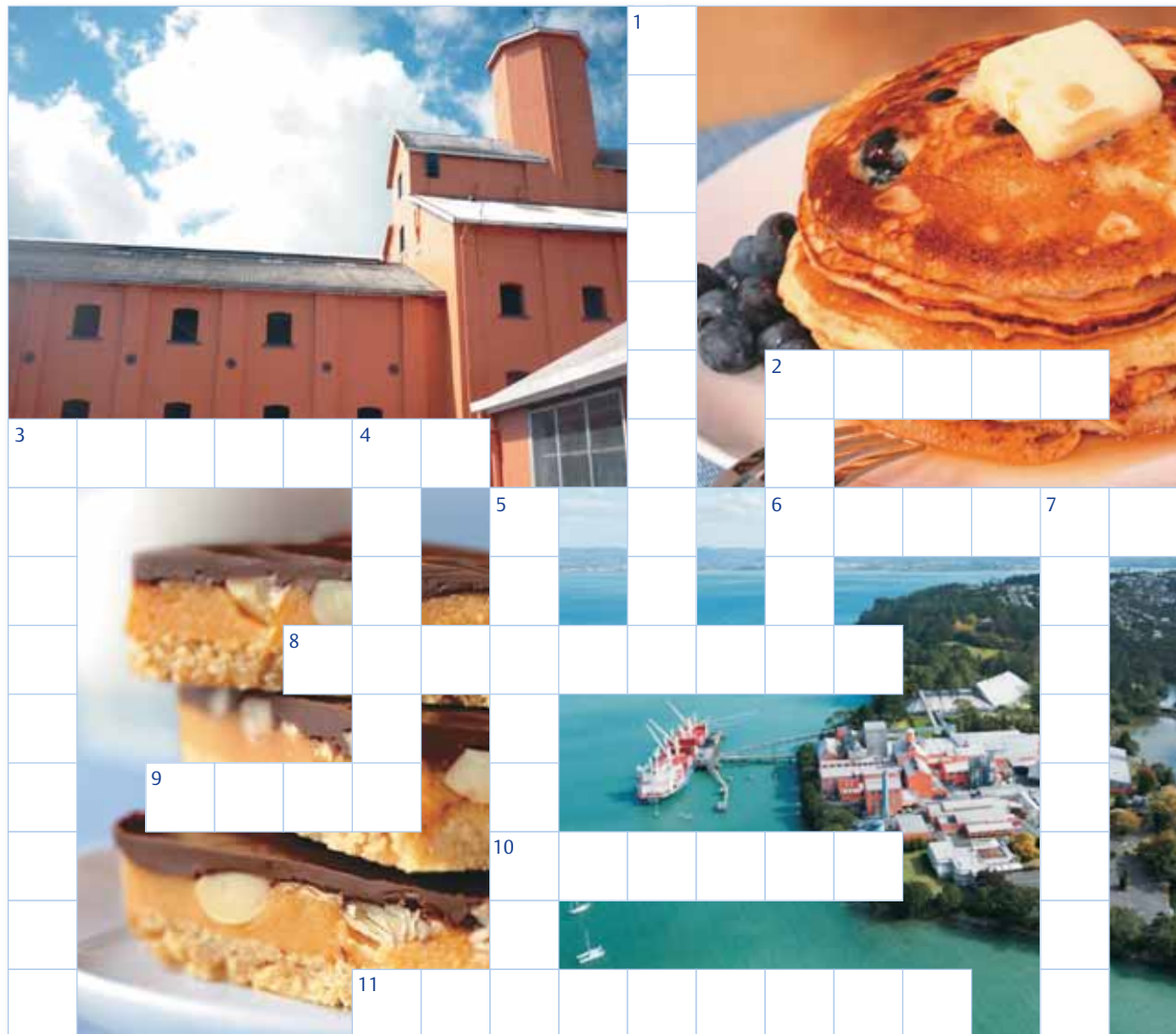
1914 World War One

1930 Depression

1939 World War Two

2009

Worksheet: Crossword



Across

2. What did Chelsea first produce?
3. A measure of energy.
6. To sell products overseas.
8. Raw material that can be bought and sold.
9. Where do the sugar boats come from.
10. A tax or duty paid.
11. What is the name of the creek near the refinery.

Down

1. The nearby village.
2. The taste of sugar.
3. A group of people living near each other.
4. To bring products into the country.
5. What is the local market?
7. What is the name of the place where sugar cane is turned into sugar crystals?

Structured Overview: Extension Task

Using the PDF file “The Business of Sugar” to help you, sort the concepts (write the letter of the statement) from the box below into the correct three file boxes.

The Business of Sugar

- A. Some specialty products such as fine sugar crystals, liquid sugar syrup and sugar blends (sugar and milk powder, salt etc) are exported to parts of Asia and Japan.
- B. World wide sugar production and consumption exceeds 150 million tonnes per annum.
- C. Sugar is a volatile commodity with its price affected by changes in supply and demand.
- D. The New Zealand sugar industry was deregulated in 1986 and is one of only four countries in the world whose sugar industry is wholly deregulated.
- E. There are no tariffs, quotas or controls on the import or export of sugar, ie no industry protection.
- F. Chelsea Sugar exports to the Pacific Islands with key markets including Tahiti, New Caledonia, the Solomons, Fiji and Samoa. Chelsea Sugar also exports some sugar back to Australia.
- G. Sugar blends (sugar and other ingredients) is a developing export business with the key focus on Japan's beverage and baking sectors.
- H. To be competitive (at home and overseas) Chelsea is committed to competing actively for business, delivering excellent service to its customers, keeping costs under control, providing quality and efficiency in all its operations and developing new products.



Competitive Market

Local Market

Overseas Market

Level Three

Lesson: Sugary Resources

Focus of lesson / Activity:

AO1 Understand how people make decisions about access to and use of resources.

Essential Question:

What resources does Chelsea need to get their product to the supermarket?

Concepts: Location

Resource, place, production.

Level 3: Key Competencies.

Using Language, Symbols and Text:

Students to develop mapping skills.

Thinking:

Students to think about the resources that are needed to produce sugar and using resource interpretation skills create a map.

Relating to Others:

Working together to create map.

Resources needed:

Worksheet for resources brainstorm.
Maps.

Lesson Outline:

First brainstorm all the resources that are needed to make sugar and get it to the shelves of a store. An aerial photo (see Sweet As PPT) of the refinery or of sugar products could be useful to help begin thinking.

Students to list the resources in their books or the worksheet provided. Students to group resources into categories that they decide on.

Using the information gained from the Sweet As PPT etc - students are to create a map of the resources needed for Chelsea to make sugar – worksheet is provided.

Students to locate important places AND resources on the map. Mapping conventions taught – good title, key, border, north point, etc.

Other notes:

Ideas for resources needed include: Sugar cane, good climate, fertile soils, fertilisers, harvesting machines, farms, boats, trucks, sacks, machines, workers, farmers, fresh water, power (coal and electricity), wharf, port, roads, Harbour Bridge, food scientists, money (capital), managers, technology, accountants, graphic designers, dams, paper, plastic, chemicals e.g. lime, etc.

Prior to lesson students will need to know what resources are. See separate activity sheet.

Worksheet: What is a Resource?

Resources are things that people use. They can be things we see every day like pens, cars, cell phones or chairs. They can also be things that are not physical objects but we use all the time like language or maths skills. Resources can be needs, things we can't live without like food and water. Resources can be wants, things we don't need to live, but that make our lives better or easier so we want them, like TV and the internet.



Resources can also be natural or cultural. Natural resources are things that are made by nature and not people. They are often things we can't live without like water, air, land and oil. Cultural resources are things made by people and are often things that we want. Cultural resources are often made from natural ones. For example trees make paper and wood and oil is made into plastic.



Finally, resources can be renewable or non-renewable. Renewable is when a resource can be easily replaced. It means it can be re-grown or reoccur. Sunshine is a resource that reoccurs and so does rainfall, bringing water. Trees and animals can be re-grown so they are renewable, wool is renewable and so is sugar. But some resources, once they are used can not be replaced. These are known as non-renewable resources. Oil and other minerals like coal, takes millions of years to form, and cannot be re-grown.



Resources are vital to the way we live. We need them to develop, grow, function. Without them we would live like cave people did thousands of years ago. But, it's important to understand that resources need to be used in a way that protects them from running out so that we can benefit from them in the future.



ACTIVITIES:

1. Using magazines, clip art or your own drawing skills, create a poster to show what resources are. You need to show needs, wants, cultural, natural, renewable and non-renewable resources.
2. Make a definitions page with pictures to show all the key words from the text above.
3. Create a wordfind with key words from the text above – give it to your neighbour to do.
4. Write a jingle or rap about the different types of resources we have.
5. Make a list of all the needs, wants, cultural, natural, renewable and non-renewable resources in your home. Try to think of at least 5 for each type.

Worksheet: What is a Resource?

1. Brainstorm as a class all the resources needed to make Sugar and get it onto the supermarket shelves.



2. Now sort the resources into 3 different categories.

Worksheet: Mapping Sugar Resources

Using the PDF file “The Business of Sugar” to help you, sort the concepts (write the letter of the statement) from the box below into the correct three file boxes.

Key	
	Sugar Cane from Queensland
	Refinery
	Wharf
	Habour Bridge
	Roads
	Fresh water
	Property
	Village / local community

