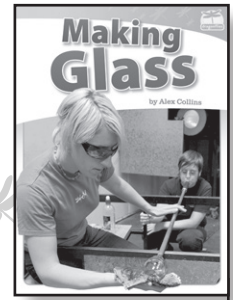


Making Glass

by Alex Collins



Overview

In this book, the author interviews a glassblower about making glass. The questions structure the text while Katie's responses and the vivid photographs detail the procedure of making a drinking glass. (Big idea: Scientists study materials and how they change.)

Suggested purposes

This book supports the following **comprehension strategies**:

- summarising the main ideas **SUM**
- making and confirming predictions **MP**
- following steps in a procedure. **FS**

It supports the following **non-fiction strategies**:

- using photographs to get information
- using an interview format – question and answer
- using procedural words (“first”, “next”, “then”, “now”, and “finally”) to convey steps in a process
- using a flow chart to understand a process
- reading labels to understand the features of tools
- using a glossary (boldface type).

Key vocabulary

The vocabulary that is focused on includes:

- Anchor words – *change, made, material*
- Content words – *blowpipe, bottom, bubble, glass, jack, oven, paddle, rim, sand, shape, silica, tool, wood, work*
- High-frequency words – *down, from, has, here, how, made, make, not, now, out, put, some, that, then, too, what, with*

Features of the text

- Non-fiction features:
 - cover flap, which provides support for identifying the big ideas and anchor words
 - the topic (making glass), which expands on pages 12 and 13 of the anchor book *Being a Scientist*
 - preview question on the back cover
 - procedural words – *first, then, now, next, finally*
 - step-by-step action photographs with labels
 - flow chart
 - inset photographs showing close-ups to highlight important details
 - interview format
 - labels
 - glossary (boldface type)
- Word study:
 - initial consonant blends – “st-”, “sp-”, “fr-”, “gl-”, “bl-”, “dr-”, “cr-”, “qu-”, “sl-”, “str-”
 - digraph sounds – “th”, “sh”, “ch”
 - contractions – *I’m, it’s*
- Question marks
- Exclamation marks
- Verbs – *use, make, heat, bend, stretch, blow*
- Adverbs – *slowly, quickly*



Setting the scene

If you have already introduced the topic using the Whole-class Introduction and the anchor book (*Being a Scientist*), you can review the discussion and show the students pages 12 and 13 of the anchor book.

What questions do you have about glass? List the students' questions on the board.

ELL support

ELL students can transfer knowledge and skills from their first language to their second language. Wherever possible, finding out what a student knows in his or her first language will help you understand their potential in English.

Introducing the book

Front cover – Discuss the photograph. *Who are these people? What might they be doing? What are they making?* Read aloud the title and the author's name.

Back cover – Read aloud the preview question. Tell the students that in this book they will find out how sand changes into glass.

Using the flap – Read aloud the text, and (if relevant) remind the students that they have read this in *Being a Scientist*. Read aloud the anchor words on the other side. Tell them that they can point out the words when they find them in the book. Ask them to leave the flap open as they read.

Title page – Read aloud the title. Discuss the photograph. *What information does this photograph and those on the front and back covers give you about making glass?* (hot fire, furnace, using a long pole, bubble) List the students' responses on the board. **(Making predictions)** *What kind of book might this be?* (a "how to" book)

The first reading

MP **Pages 2 and 3** – **(Making predictions)** Before reading the text, point to the photograph. *What is she going to do? What is the white powder on the shovel? What can you see behind her?* (furnace) *What might the furnace be used for?* Point to the question. *Who is asking the question? Why? What is Katie going to do?*

Pages 4 and 5 – *What do you notice about the headings?* (coloured italicised question, white line) *Why is it written this way?* (to show that two people are speaking) *Who is speaking when the text is coloured? Who is speaking when it is black?* Discuss the questions. Point to "silica". *Why is this word in bold?* (to draw attention to an important ingredient in making glass; to point us to the glossary) Have the students turn to the word in the glossary. **(Following steps in a procedure)** *Point to the photograph on page 5. What word shows that Katie is starting?* (first) Discuss the photograph. *What is she doing?* Discuss the meaning of "material". Focus on the equipment. *How is she keeping safe?* (safety mask, gloves, standing clear of the hot oven)

FS **Page 6** – Discuss the photograph and the text. Look up "blowpipe" in the glossary. **(Following steps in a procedure)** *What is Katie doing? How will she make the right shape? What words show that she is moving to the next steps?* (then, now) *How does the label help you?* (points to the tool described in the text) *What is at the bottom of the blowpipe?*

Page 7 – Look up "jack" in the glossary. **(Following steps in a procedure)** *How does Katie use the jack to make shapes?* Discuss Katie's answer to the question. Focus on the close-up photograph and how it helps us to understand what is happening. Have the students point to the different parts (blowpipe, where the blowpipe enters the glass, the glass being shaped). *What does she need to do next? Is the glass finished?*

Pages 8 and 9 – *What is Katie doing with the jack?* Point to the blowpipe. Look at the photographs, read the questions, then discuss the responses. *What is Katie using to shape the bottom of the glass?* Read the label. **(Following steps in a procedure)** *Which word shows that Katie has come to the last step?* (finally) Look up "rim" in the glossary. *How is she using the jack to make the rim?*

Page 10 – Discuss the interviewer's comment and question. **(Following steps in a procedure)** *Find the sentence that tells us the last step.* (It needs to go into a warm oven.) *Why does the glass need to go into a warm oven?*

Page 11 – **(Summarising)** *What does the chart show?* (the steps in making glass) *Why is a flow chart a good way to show this?* (easy to understand; presents each step in a clear, simple way) *What do the numbers and arrows mean?* Have the students read the captions and discuss the actions at each step.

Explain that these are steps in a procedure. Encourage the students to use procedural words such as “first”, “next”, “then”, “now”, and “finally”. *Would you like to try make glass? Why/why not? What other things are made from glass?*

Vocabulary activity

Focus word: change

1. Reread page 2. *Can you change sand into glass?*
2. Say “change” with me.
3. Explain that change means to become different. Another word for “change” is “transform” as in transformer toys. Explain that for an object to change, something needs to happen to it. *A change can be small or big. It can take a long time or it can happen quickly. Heat causes sand to change into glass. This is a very big change that happens quickly.*
4. Explain that you can change an object by doing something to it. Actions can include moving the object to a new place, moving it around, adding something to it, or taking something away from it. Give examples such as the following:
 - *To change class, you move to another classroom.*
 - *To change how your bedroom looks, you move things around or rearrange the pictures on the wall.*
 - *To change the colour of paint, you can add another colour.*
 - *To change your hairstyle, you have a hairdresser cut your hair.*
5. Do the following activities:
 - Have the students discuss how something can change. For example, display a glass of milk and have the students discuss with a partner how to change it. Remind them that they could move the glass of milk to a new place, move it around (by stirring), add something to it (flavour), or take something away from it. Encourage the students to use “change” as they describe how they would change the milk.
 - Have the students change their seating places for a morning. Talk about how they liked the change.
6. *What is the word we’ve been learning that means “to become different”? Say the word with me.*

ELL activity

Language objective: Developing procedural vocabulary

- Reread the text together.
- Turn to page 11. *What do the photos show us? What do the numbers mean? Support the students to*

understand that the photos show the steps for making glass.

- Read the labels together or ask five students to read one each.
- Tell the students that they’re going to write a summary of the steps using the flowchart.
- Reread the labels. Help the students to write a complete sentence for each step. They can refer to the book for information (sand and melting – page 5, blowing – page 6, shaping – page 7, cooling – page 10). Support them to use procedural language for each step – first, then, now, next, finally, and last.
- After the students have constructed their sentences orally, record them on the board. Ensure that the sentences start with the procedural words.
- Reread the sentences together. Ask them to underline the procedural words on the board. Reread them again.
- *We have been learning about words that help us put directions into order so that people know what to do first, next, and last. Let’s say these words together one more time.*

Ideas for revisiting the text

1. Review and check

- Listen as the students reread the text, observing their fluency and decoding strategies.
- Review the anchor and content words. Check that the students know what each word means and how it is used.

2. Stop and learn

a. Decoding/word attack activities

Practising tenses

- Write “make”, “made”, and “making” on the board. Ask the students to practise saying the words.
- Write the following sentences on the board and have the students choose one of the words (“make”, “made”, or “making”) to complete each sentence.
 - Katie will _____ glass out of sand. (future tense)
 - Katie has _____ glass out of sand. (past tense)
 - Katie is _____ glass out of sand. (present tense)
- Discuss what has happened or is happening in each instance.

BLM – Practising writing “made”, “make”, and “making” in the correct tense

Have the students write the correct words in the spaces provided. They can then write a sentence about something they would like to make and draw a picture of it.

b. Comprehension activities

- *What did this book tell us? What helped us learn about making glass? (photographs, labels, charts, answers from the interview) Which page gives a summary of how to make glass? (page 11) Why is it a good summary? (provides all the main steps briefly)* Explain that this is supported by other facts and details in the text. Have the students recall the steps about how to make a drinking glass.

BLM – Labelling and ordering pictures to show a sequence

Have the students cut out the words and place them in order to show the procedure for making a glass. They can draw a picture in each box to describe the step.

c. Writing activities

Have the students write:

- A list of glass objects
- Similes for “hot”
- A list of action words from the text (“crack”, “cool”, “melt” and so on).
- Steps for making something, using the procedural words (“first”, “next”, “then”, “after”, “when”, “finally”)
- A poem about changing sand into glass. Encourage them to use adjectives to describe how the sand changes (for example, “melting”, “oozing”, “scorching”).

3. Suggestions for further activities

- Collect and make a display of glass objects.
- Interview someone about something they make, for example, a baker or a furniture maker.