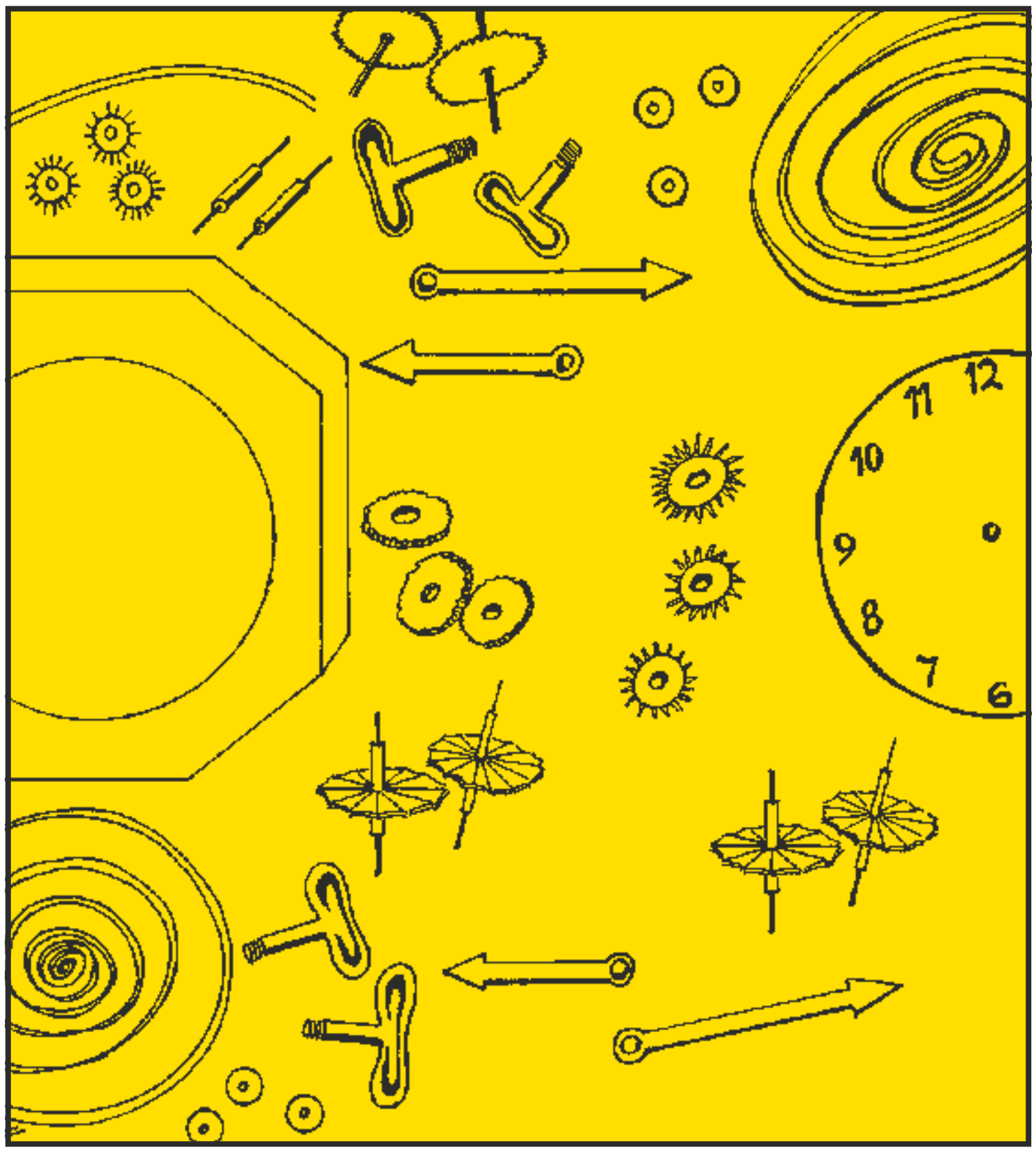
Year 3 Book 20

Cogs, wheels, springs and screws



By Griffith Hebala
Pictures by Jackson Onahikeni

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 1 6/06/17 11:22 pm

Nguzu Nguzu Reading Books

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Review and re-development project

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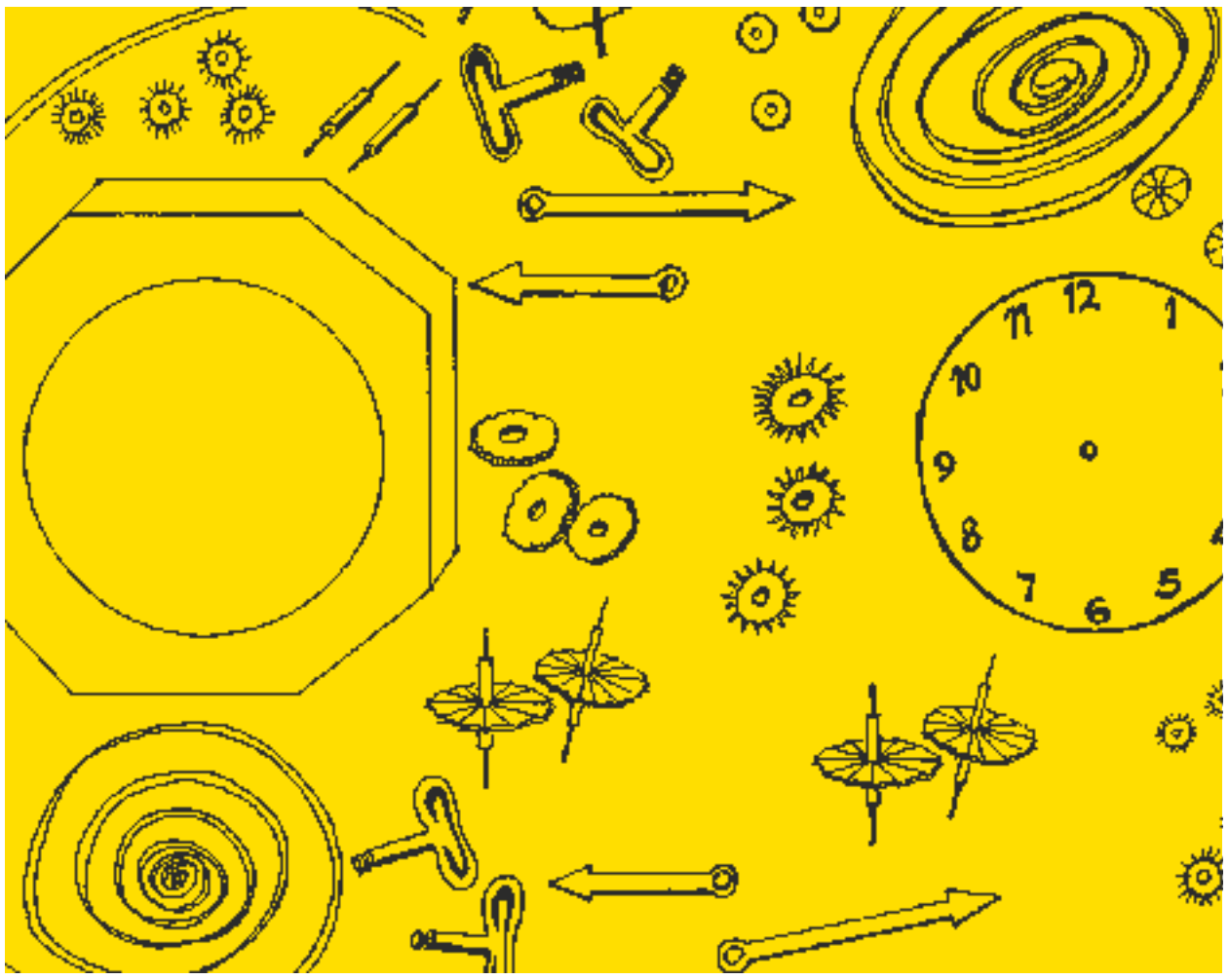
Cogs, wheels, springs and screws



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Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 1 6/06/17 11:22 pm

Sarah was not interested in netball or music. She was interested in how things were made and how they worked. When her mother's sewing machine didn't work smoothly Sarah oiled it.

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 2 6/06/17 11:22 pm

When her father's engine wouldn't start Sarah cleaned the spark plugs.

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 3 6/06/17 11:22 pm

When her brother's bicycle had a puncture Sarah patched it.

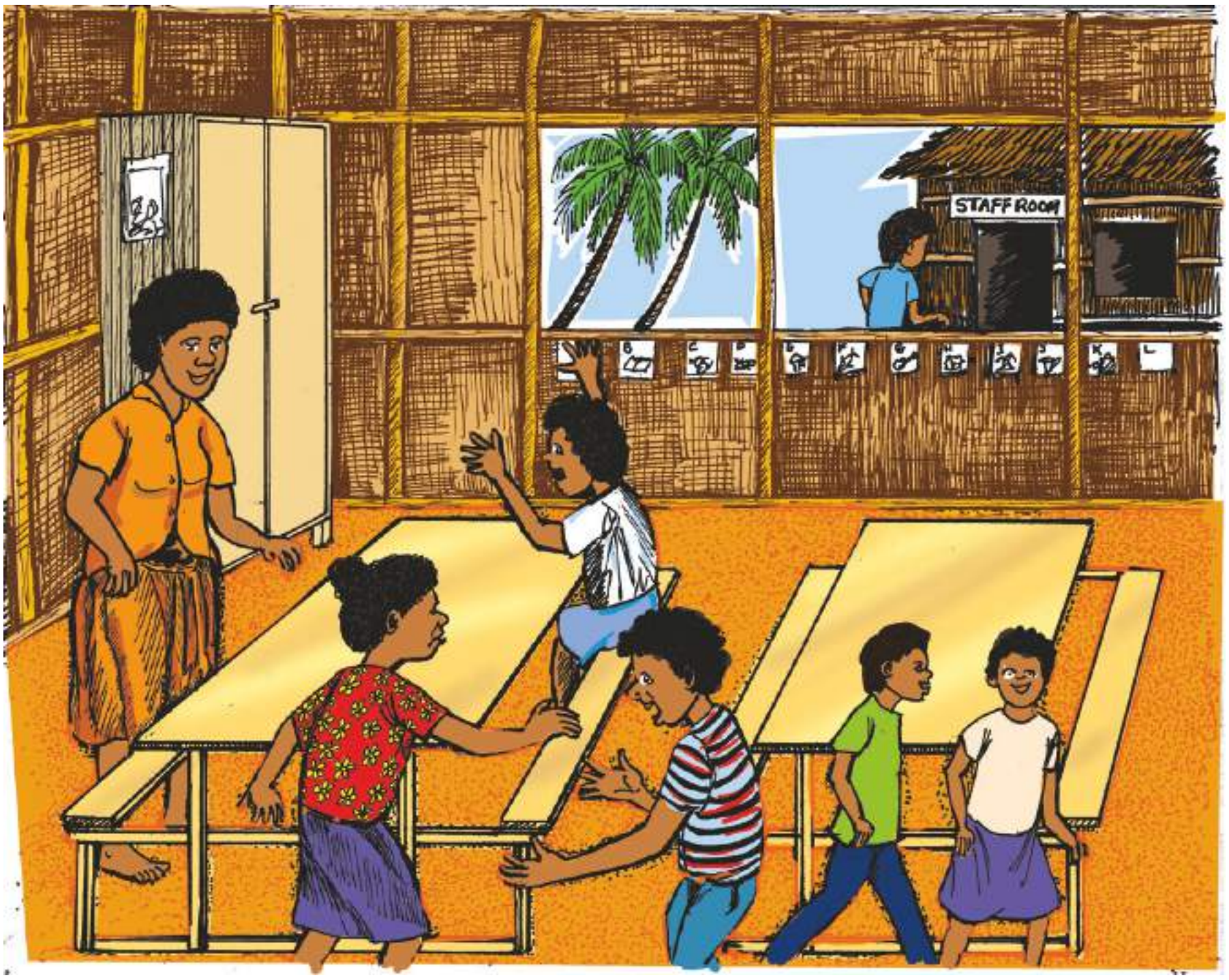
Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 4 6/06/17 11:22 pm

One day Sarah's teacher, Mrs. Damaris, brought a new clock into the classroom. It had a white face and a red plastic case. She turned the key at the back of the clock. Sarah imagined all the little cogs and wheels turning inside the clock as she listened to the ticking sound.

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 5 6/06/17 11:22 pm

Mrs. Damaris taught the children how to tell when it was five minutes past six or ten minutes past eight.

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 6 6/06/17 11:22 pm



After the maths lesson Mrs. Damaris put the clock in the cupboard and sent the children out to play. Then she went to the staff room.

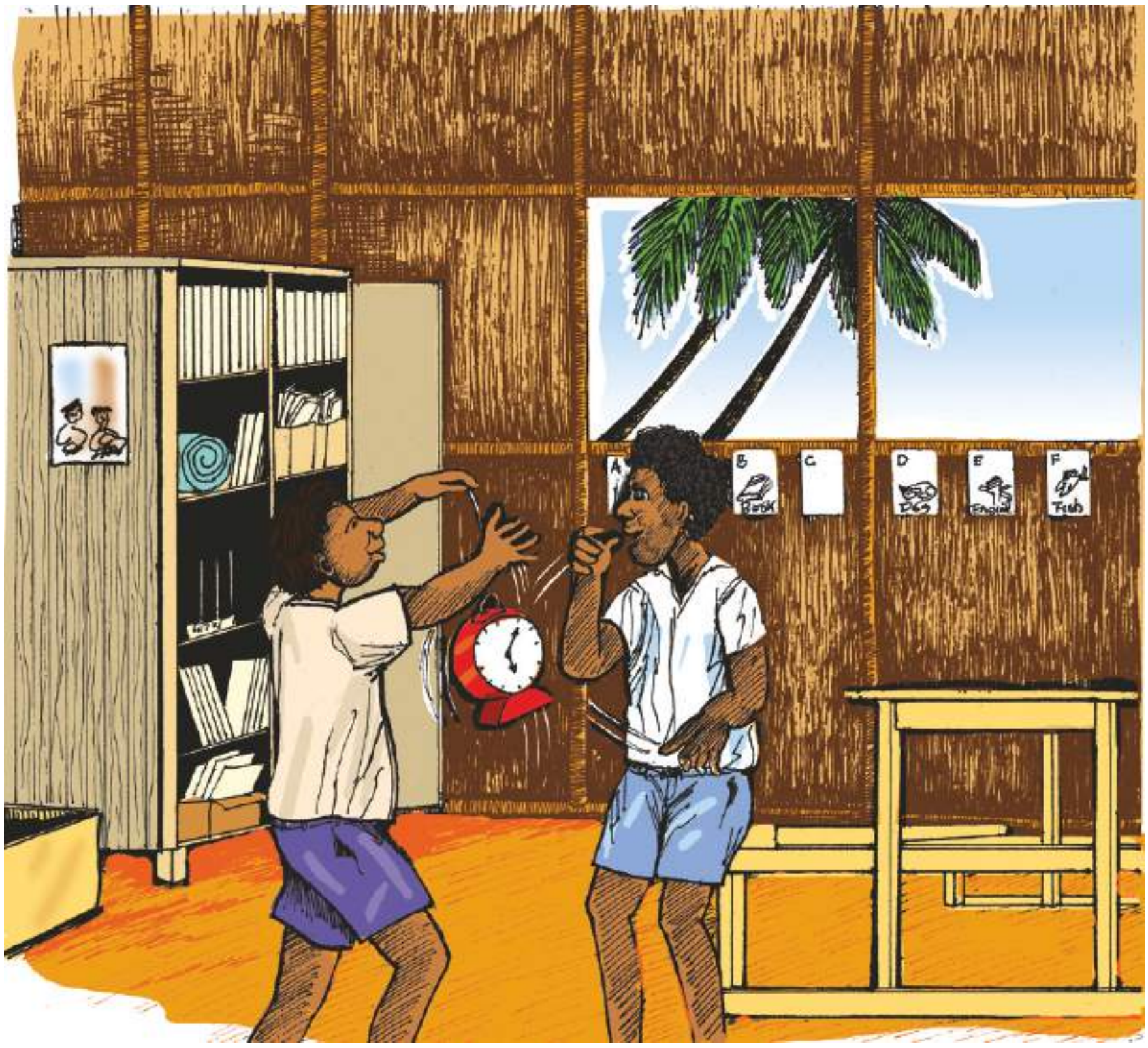
Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 7 6/06/17 11:22 pm

Sarah wanted to find out more about the clock and how it worked, so she asked for permission to go back into the classroom.

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 8 6/06/17 11:22 pm

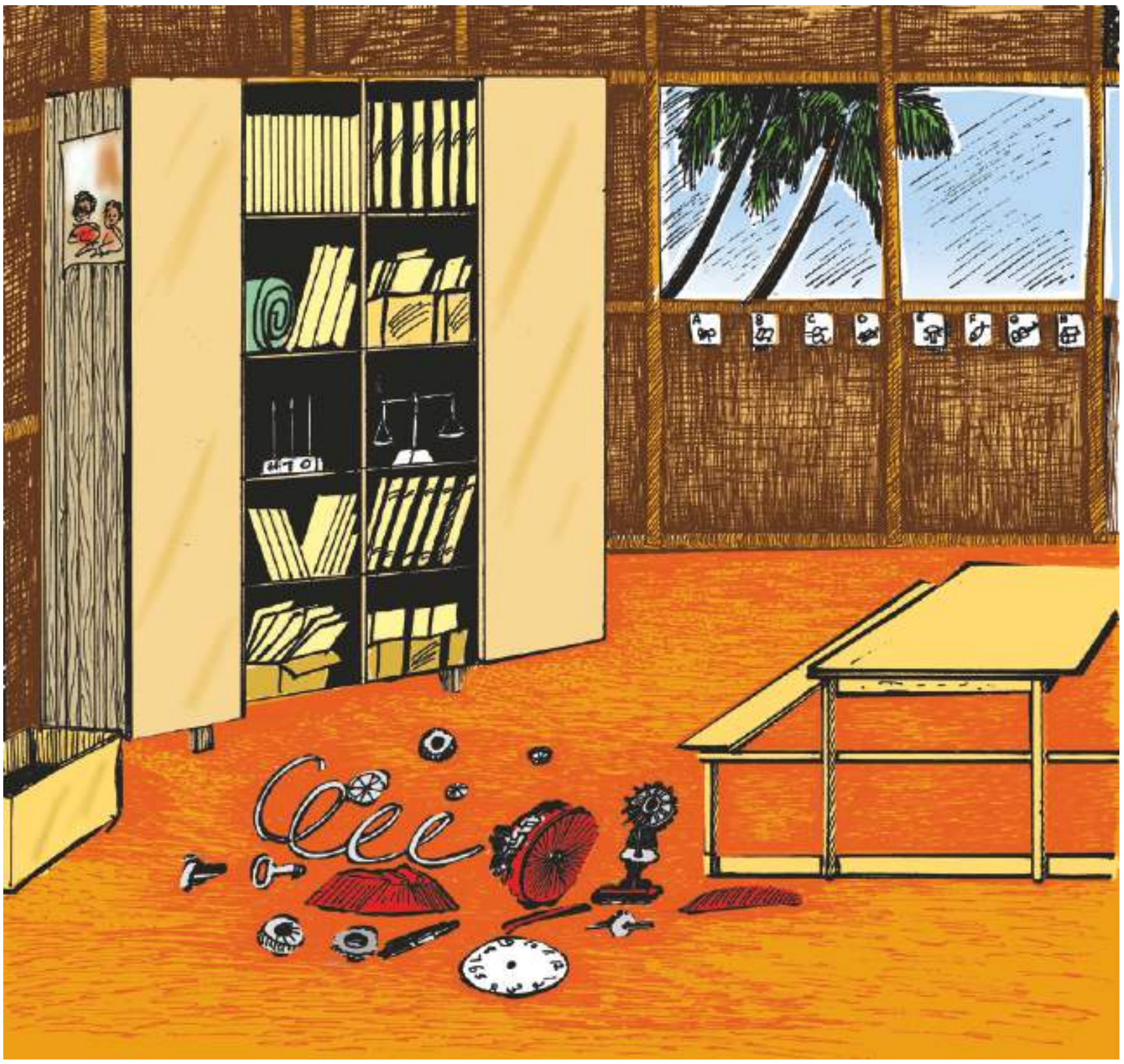
Sarah went to the reading corner and found a book about clocks. She sat down behind a shelf of books and began to read.

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 9 6/06/17 11:22 pm



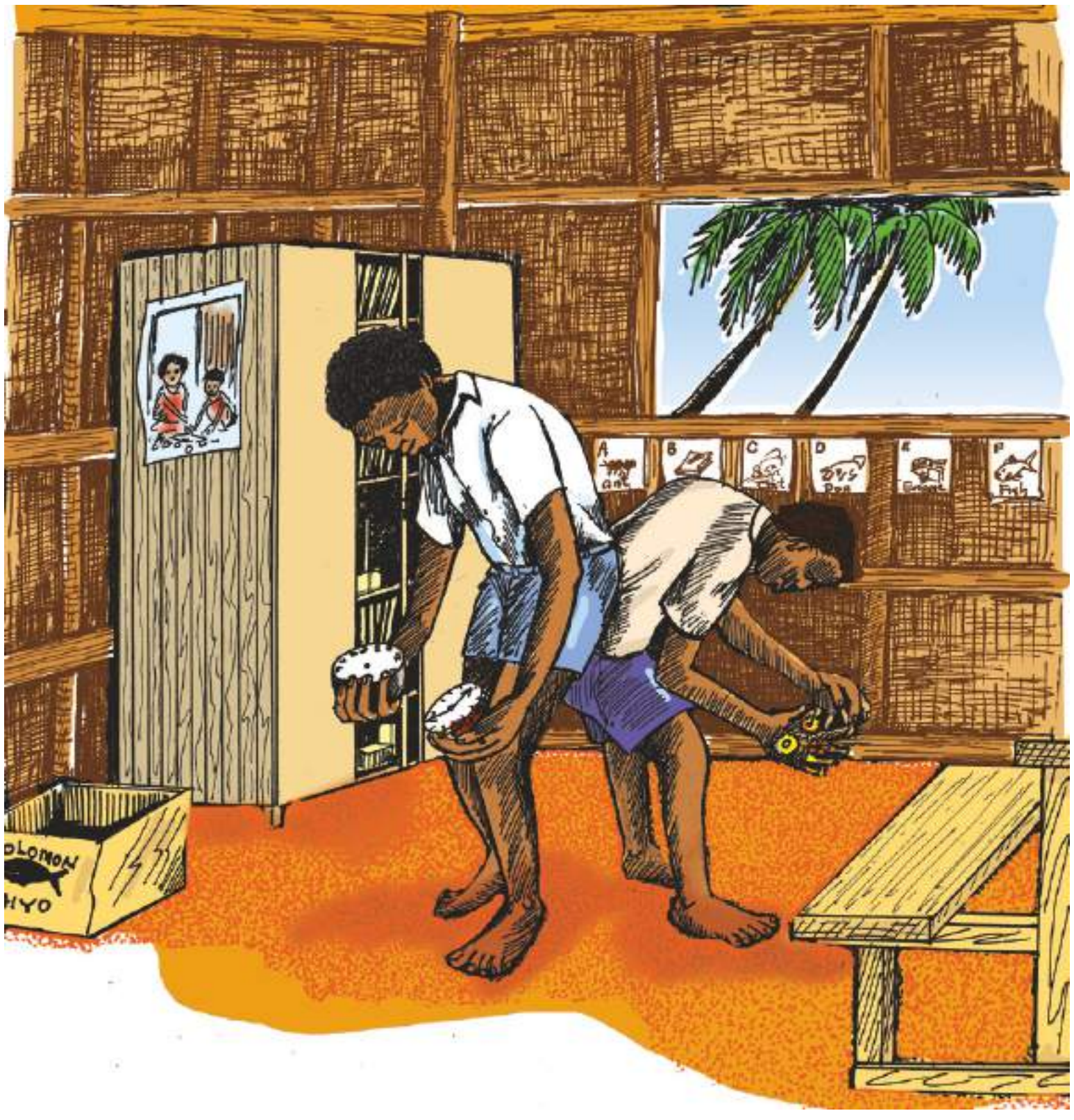
Just then, Frank and James crept into the classroom. They wanted to play with the clock. James took the clock out of the cupboard. Frank tried to grab the clock from James' hands, but it slipped.

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 10 6/06/17 11:22 pm



The clock fell onto the floor. The red case came off and all the little cogs, wheels, springs and screws flew out and scattered all over the floor. Frank and James knew that they would be in trouble.

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 11 6/06/17 11:22 pm

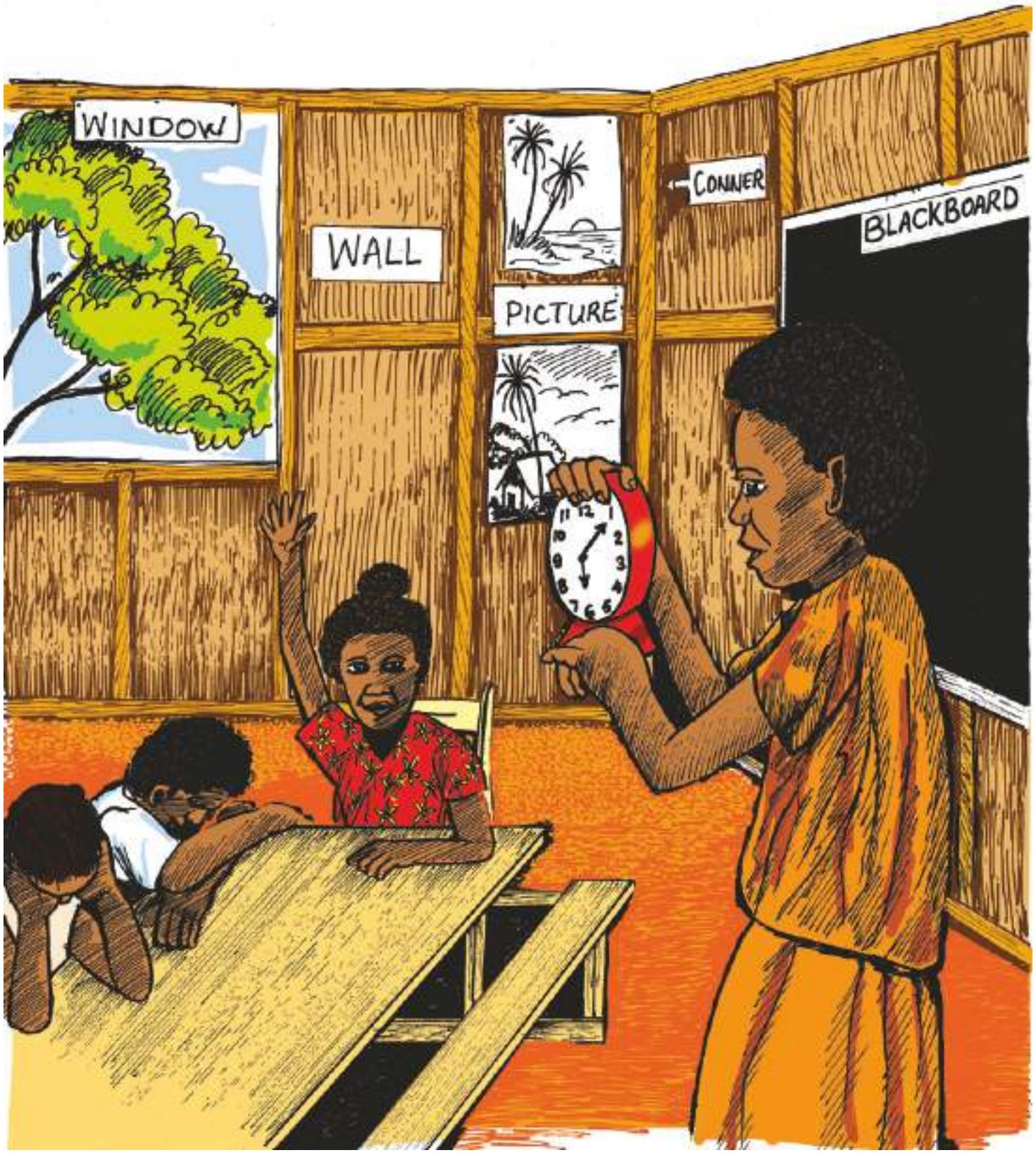


Frank and James gathered up all the cogs, wheels, springs and screws and hid them at the back of the cupboard. Next they replaced the red plastic case. After that they put the clock back into the cupboard. Finally they crept out of the classroom.

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 12 6/06/17 11:22 pm

All through the next morning Frank and James were very quiet. When Mrs. Damaris said it was time for maths they began to feel sick inside. Mrs. Damaris went to the cupboard, opened the door and took out the clock. Then she began to turn the key at the back.

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 13 6/06/17 11:22 pm



Frank and James hid their faces and began to cry.

"Now," said Mrs. Damaris. "Who can tell me what time the clock shows?"

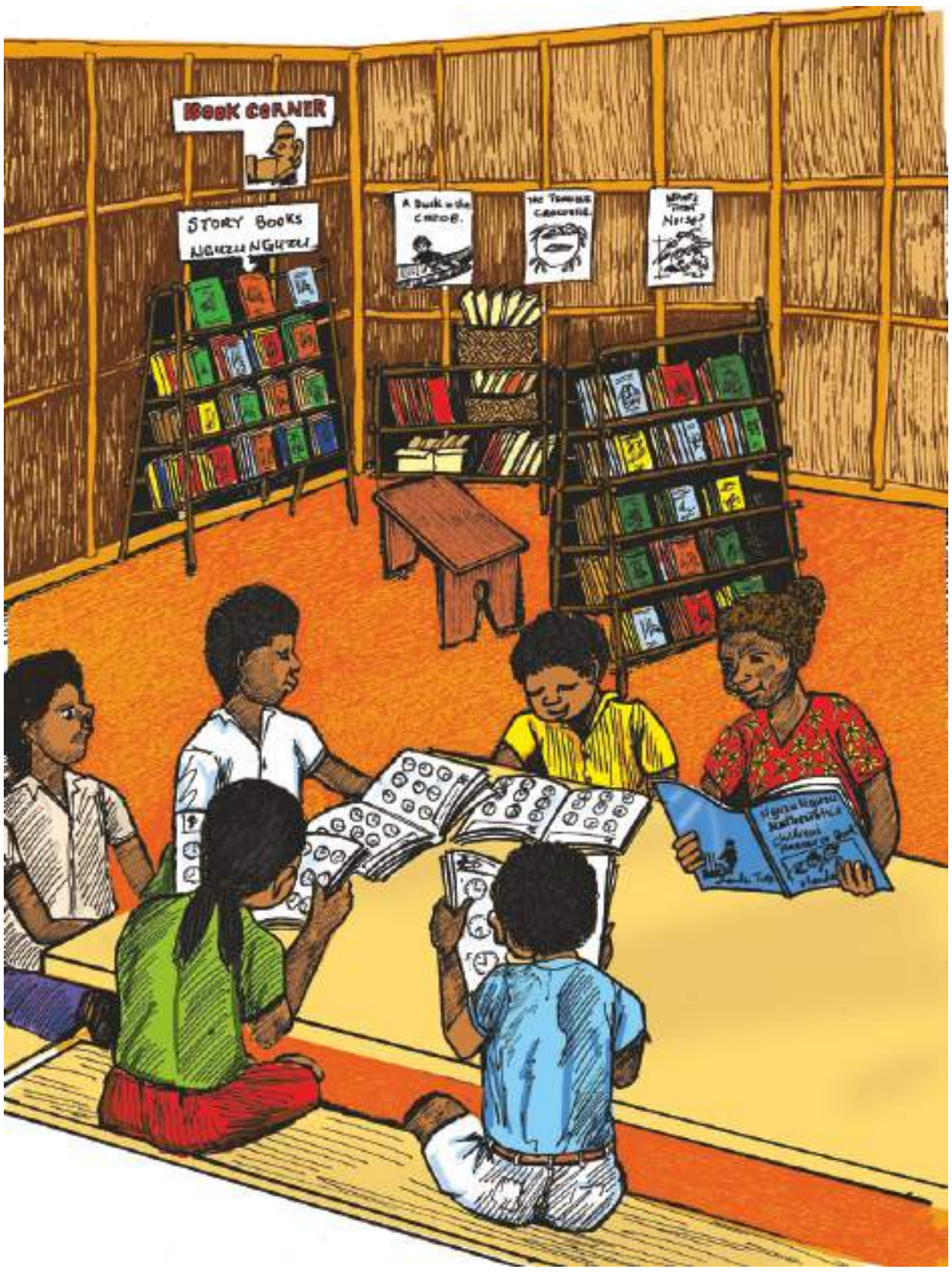
"Five past six," said Sarah.

"Well done, Sarah." said Mrs. Damaris.

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 14 6/06/17 11:22 pm

Frank and James opened their eyes. They looked at the clock. The hands were moving. They listened. The clock was ticking.

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 15 6/06/17 11:22 pm



Frank and James looked around the class. When they looked at Sarah she smiled. Suddenly they realised. It was Sarah who knew how to put the cog, wheels, spring and screws back together. Thank goodness for Sarah!

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 16 6/06/17 11:22 pm

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 17 6/06/17 11:22 pm

Text:	*Cogs, Wheels, Springs and Screws*
Level:	Year 3
Message:	It's useful to know how things work
Discussion focus:	Respecting school property / taking responsibility for your mistakes
Comprehension:	Action/reaction
Vocabulary focus:	Machines
Letters and sounds:	*spr/scr*
Writing opportunity:	Letter writing

ACTIVITIES	LANG.	SYLLABUS
Day 1 Modelled Reading Part 1 Set the context: Talking with learners Explain to the learners: *This is called Cogs, Wheels, Springs and Screws and it sounds like a factual book, but it is really a story about a girl who is good at fixing machines.* Ask: *What types of machines do you have at home? Have you ever looked inside a machine? What did you see?* Look at the front cover. Read the title and explain: *Cogs, wheels, springs and screws are things you will find in many different machines* (point to the illustrations of the cogs, wheels, screws and springs). Bookwalk p. 2 - 11: move through the text showing the pictures and talking about what we think will happen at each point. Make sure you introduce words and phrases that you think will be new to the learners. *(eg. not interested, interested, smoothly, oiled, spark plugs, puncture, patched, (clock) face, plastic case, permission, shelf, crept, cupboard, came off, scattered.)* At p. 11 point out the illustrations of the cogs, wheels, springs and screws. **Stop at p. 11**.	**V/P + E**	3.4.1.1 3.3.2.1
Read the story: Listening and watching Read pp. 2 - 11 in clear English. Read p. 10 in a sneaky, quiet voice that represents the boys creeping into the room.	**E**	
Review the story: Understanding the story Go back through pp. 2 - 11 with the learners. Ask learners to retell what was happening as you turn each page. Make sure they can tell you the events in order.	**V/P + E**	3.6.1.1 3.4.2.3
Responding to the story: Talking by the learners Focus on respecting school property. Ask: *Who was allowed to be in the classroom? How do we know this?* Discuss the difference between Sarah's actions and Frank and James' actions. *(Sarah asked the teacher for permission but the boys crept in).* Discuss the importance of respecting the teacher's things and resources in the school. Remind the learners that they will hear the rest of the story tomorrow.	**V/P + E**	3.6.1.4 3.3.1.1
Close Reading Do a close reading of the repeated sentence structure on pp. 2, 3 and 4. Summarise: This is the orientation and tells us the situation of Sarah.	**E**	3.4.2.3
Focus on Letters and Sounds: *spr/scr* Prepare single letter flash cards for *s* *p* *r* *c* . Practice blending: Begin with the blend *spr*. Pick 3 learners to stand in front of the class. Give one learner *s*, this learner stands on the left side of the room. Give another learner *p*, this learner stands in the middle. Give the other learner *r*, this learner stands to the right of the room. Point to *s*, instruct the class to say the sound *sss.* Move your finger across the room to *p*, instruct the class to say the sound *p.* Move your finger across the room to *r*, instruct the class to say the sound *rrr.* The learner with *s* moves next to the learner with *p.* Point to *s* and move your finger to *p* as you instruct the class to say the blend *sssp.* The learners with *s* and *p* move next to the learner with *r.* Point to *s* and move your finger across *p* then move your finger across to *r* as you instruct the class to say the blend *ssprr.* Repeat faster *spr.* Ask learners to identify the *spr* word in *Cogs, Wheels, Springs and Screws*. On the *spr* chart write the word *springs* and draw a picture of *springs.* Create a *spr* chart with words that learners can give you that start with *spr*. Use the same process to blend the letters *s, c, r.* Ask learners to identify the *scr* word in *Cogs, Wheels, Springs and Screws*. On the *scr* chart write the word *screws* and draw a picture of *screws.* Create a *scr* chart with words that learners can give you that start with *scr*.	**E + V/P**	3.4.3.1

Day 2 Modelled Reading Part 2 Revising and completing the book Ask learners to think about what happened on pp. 2 - 11. In pairs, the learners discuss what they remember from the story. What do they think will happen in the rest of the story? Take some suggestions: do NOT say whether these are correct or not, just let the learners give ideas. Do not do a picture walk. Tell learners that they may hear some words or phrase on pp. 12 - 16 that are unfamiliar *(eg. gathered up, replaced, to feel sick inside, (clock) key, (clock) hands).* Read pp. 12–16 in clear English. Read p. 12 in a sneaky, quiet voice that represents the boys creeping in and out of the room.	**V/P + E**	3.4.2.1 3.3.2.1

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 18 6/06/17 11:22 pm

ACTIVITIES	LANG.	SYLLABUS
Review the story: Understanding the story Go back through pp. 12 - 16 with the learners. Get them to retell to a partner what was happening as you turn each page. Make sure they can tell you the events in order. Make sure they understand that Sarah fixed the clock and saved the boys.	**V/P + E**	3.4.2.3
Responding to the story: Talking by the learners Focus on taking responsibility for your mistakes. Ask: *Who made a mistake in the book? Was this an accident or deliberate? How did the boys feel when they broke the clock? What do you think would have happened if Sarah didn't fix the clock? Do you think Sarah should tell her teacher about the incident? Why or why not?* Discuss the importance of taking responsibility for your mistakes by admitting you did something wrong and trying to fix the problem.	**V/P + E**	3.6.2.1 3.6.2.3
Close Reading Distribute the small books to groups of learners. Do a close reading of p. 11. Summarise: this is where the complication occurs so look at the information we get.	**E**	3.4.2.3
Focus on Vocabulary: Machines *Preparation:* make this chart with labels *human, electricity, petrol, gas.* Human Power | Electricity | Petrol | Gas Ensure all learners can see a small copy of the book. Ask them to go through the book with their partner and find all the machines that we see in the book: bicycle, sewing machine etc. When the learners have discussed this, make a list on the board of what the learners found. Explain: *Machines make work easier. A machine is a piece of equipment with moving parts like cogs, wheels, springs and screws. A machine does work when given power: human power, electricity, petrol or gas.* Look at the list of machines from the book: discuss how these machines are powered *(sewing machine – human or electricity; boat engine – petrol; bicycle – human power; clock –human power with a turn key or electricity from batteries)* Together the class brainstorm additional machines, *eg. radio, fan, light, mobile phone, torch, television, computer, chainsaw, lawn mower, ship, car, truck, gas stove, gas oven, lamp, aeroplane, scissors, stapler, hole punch, pencil sharper* Learners work in pairs or groups of 3. Provide each group with a machine word, half A4 paper and colours. Learners work together to create a picture that represents their vocabulary word. When complete, learners glue their machine word on the correct power chart to create a classroom display.	**E +V/ P**	3.4.3.2

Day 3 Shared reading: Revisiting the story Distribute the small books to groups of learners. Read story to the learners in clear English and pause when you reach the machine words so learners can contribute.	**E**	3.2.1.3
Comprehension: Action/Reaction *Preparation:* create a chart called *Emotions* (Note if the class has previously read *Picnic Island,* review and add to the *Emotions* chart created with this book.) Ensure all learners have access to a book. Turn the pages find the events that are shown on the left hand side of the chart. ***Action*** | ***Reaction*** *Sarah oiled her mother's sewing machine* | *(Character/s) was/were (emotion)* *Sarah cleaned her father's engine.* *Sarah patched her brother's bicycle wheel.* *Mrs. Damaris brought a new clock to school.* *Sarah read a book about clocks.* *Frank and James crept into the classroom.* *The clock fell on the floor and broke.* *Mrs. Damaris took out the clock.* *The clock was fixed.* *The Frank and James looked at Sarah.* When the event is located, talk about which character would have a feeling about that event. Discuss and write a few words that give the feelings. Eg. *Sarah oiled her mother's sewing machine. Mother, grateful, pleased.* Now ask the learners to say this in a sentence. For each event, discuss and write the person and the feeling, only. Learners can now use these notes to write sentences in their books. Learners write the first sentence then continue with the next sentence that tells the emotion (NOT on a new line!). Learners to use the emotion chart for help with vocabulary. Check the sentencing as you walk around the room.	**E + V/P**	3.6.2.4

Day 4 Shared reading: Revisiting the story Distribute the small books to groups of learners. Pick one group to read the first page. Groups and the teacher continue taking turns reading pages until the book is finished.	**E**	3.2.1.3

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 19 6/06/17 11:22 pm

ACTIVITIES	LANG.	SYLLABUS
Shared Writing: letter writing Ask: *How do you think the boys, Frank and James, felt when they discovered Sarah fixed the clock? (thankful, grateful)* Learners pretend to be the boys who wish to express their gratitude to Sarah. Ask: *How would you show Sarah that you are thankful for her kindness?* Explain that writing someone a letter is a nice way say thank you. Together, the class writes a letter to Sarah to thank her for fixing the clock. Eg. **Introduction** *Who is the letter to?* — *Dear Sarah,* **Body** *Purpose* *Feelings* *Future goals* — *We are writing to you because …* *When the clock broke we felt … because …* *In the future we will …* **Conclusion** *Who is the letter from?* — *Yours sincerely,* *Frank and James* Ask some of the learners to come and write some parts of the letter. Read it together and comment on how it is constructed.	**E + V/P**	3.7.1.1 3.7.1.3 3.7.1.2 3.9.1.1
Day 5 Independent Reading Distribute small books and ask learners to read the story to each other or independently.	**E**	3.4.2.2
Guided Writing: letter writing Review the shared writing letter from Day 4. Learners pretend they are Sarah and write a response letter to Frank and James. Write this letter structure on the board or chart to help the learners. **Introduction** *Who is the letter to?* — *Dear Frank and James,* **Body** *Purpose.* *Feelings.* *Future goals* — *I am writing to you because …* *When the clock broke I felt … because …* *In the future I hope …* **Conclusion** *Who is the letter from?* — *Yours sincerely,* *Sarah* Let learners read their letters to each other. Make a display with the Shared Writing letter in the middle and the other letters around the sides.	**E + V/P**	3.7.1.1 3.7.1.2 3.7.1.3 3.9.1.1

Other activities:

Looking closely at machines

- Bring a clock to the class and take it apart. Find the cogs, wheels, springs, screws and other parts
- Bring another form of (unpowered) machinery to school and take it apart.

Letter writing

- Learners pretend to be Sarah's mother, father or brother and write a thank you letter to Sarah.
- Learners write a thank you letter to someone who has helped you before.

Time

Link to mathematics lessons about using analogue clock

Word hunt:

Divide the class into two groups. One group looks for *spr* words and the other group looks for *scr* words. Encourage the use of different texts (eg. reading books, text books dictionaries, newspapers, wall charts). When learners find *spr* or *scr* words, they write and draw their findings on the *spr* and *scr* charts

Y3020T_Cogs, wheels, springs and screws BK20_A3_2017.indd 20 6/06/17 11:22 pm

Nguzu Nguzu Stories

Y3020T-17