NOVA PIONEER

SCHOOLS FOR INNOVATORS & LEADERS

At-Home Learning Pack
Term 1 2020

Week of: March 23 to 27

Grade: 7

Recommended Schedule for

📆Monday 23 March

Time	Subject	Learning Experiences	Online Support Activities
8:00 - 9:00	📚 English & Writer's Workshop	Poetry	N/A
9:00 - 9:15	Break		
9:15 - 10:15	➕Mathematics	Times tables	N/A
10:15 - 10:30	Break		
10:30 - 11:15	💬Second Languages	Second Languages (SA) **-Interview - create a list of questions**	N/A
11:15 - 11:30	Break		
11:30 - 12:15	🔍Technology	Single vanishing point	http://elementaryarttfun.blogspot.com/2012/02/drawing-steps-for-one-point-perspective.html
12:15 - 1:00	Lunch		
1:00 - 1:45	💃Movement	Station rotations	N/A
1:45 - 2:30	🔭Exploration	SEL Skill: How is my Body Feeling?	N/A

Recommended Schedule for

📅Tuesday 24 March

Time	Subject	Learning Experiences	Online Support Activities
8:00 - 9:00	📚 English & Writer's Workshop	Write an autobiography	N/A
9:00 - 9:15	Break		
9:15 - 10:15	➕Mathematics	Algebraic Expressions	N/A
10:15 - 10:30	Break		
10:30 - 11:15	💬Second Languages / Other Subjects	**Geography** **-**Map work	https://www.youtube.com/watch?v=FqJrmnQ9sBs&t=2s https://www.youtube.com/watch?v=BANNwyet-e8
11:15 - 11:30	Break		
11:30 - 12:15	🔍Science / Humanities	Science: Microorganisms	
12:15 - 1:00	Lunch		
1:00 - 1:45	💃Movement	Movement games and muscle strength	N/A
1:45 - 2:30	🔭Exploration	COVID-19: Viruses & Bacteria	N/A

Recommended Schedule for

📆Wednesday 25 March

Time	Subject	Learning Experiences	Online Support Activities
8:00 - 9:00	📚 English & Writer's Workshop	Write a biography	N/A
9:00 - 9:15	Break		
9:15 - 10:15	➕Mathematics	Algebraic expressions	N/A
10:15 - 10:30	Break		
10:30 - 11:15	💬Second Languages/Other Subjects	Second Languages (SA) **-Have an interview**	N/A
11:15 - 11:30	Break		
11:30 - 12:15	🔍Science / Humanities	Your microbial friends	Your microbial friends
12:15 - 1:00	Lunch		
1:00 - 1:45	💃Movement	Target practice	N/A
1:45 - 2:30	🔭Exploration	COVID-19: Germs & Staying Healthy	N/A

Recommended Schedule for

📆Thursday 26 March

Time	Subject	Learning Experiences	Online Support Activities
8:00 - 9:00	📚 English & Writer's Workshop	Making inferences	N/A
9:00 - 9:15	Break		
9:15 - 10:15	➕Mathematics	Algebra word problems	N/A
10:15 - 10:30	Break		
10:30 - 11:15	💬Second Languages/Other Subjects	**History** -Mali and Mansa Musa	https://www.youtube.com/watch?v=li8UgaYLFFQ&t=245s https://www.sahistory.org.za/article/grade-7-term-1-kingdom-mali-and-city-timbuktu-14th-century https://www.youtube.com/watch?v=jvnU0v6hcUo
11:15 - 11:30	Break		
11:30 - 12:15	🔍Science / Humanities	That's life!	N/A
12:15 - 1:00	Lunch		
1:00 - 1:45	💃Movement	Traditional dances with a twist	Traditional Zulu dance Traditional Xhosa dance Traditional Sotho dance Traditional Indian dance Traditional Afrikaner dance
1:45 - 2:30	🎢Exploration	SEL Project: Let's Breathe	N/A

Recommended Schedule for
📆Friday 27 March

Time	Subject	Learning Experiences	Online Support Activities
8:00 - 9:00	📚 English & Writer's Workshop	Create a comprehension activity	N/A
9:00 - 9:15	Break		
9:15 - 10:15	➕Mathematics	Algebra word problems	N/A
10:15 - 10:30	Break		
10:30 - 11:15	💬Second Languages/Other Subjects	Second Languages (SA) **-Report writing**	N/A
11:15 - 11:30	Break		
11:30 - 12:15	🔍Science / Humanities	Plants vs Animal cells	N/A
12:15 - 1:00	Lunch		
1:00 - 1:45	💃Movement	Pattern & category movements Alphabet yoga	Alphabet yoga
1:45 - 2:30	🔭Exploration	SEL Project: Let's Breathe	N/A

📚Literacy & Writer's Workshop Activities

Monday, 23 March

Time: 60 min

Learning Goal:
Students will write a poem.

Materials Required:
- Notebook
- Pen
- Colouring pencils (optional)

Instructions for Learning:

Read these acrostic poems:

Sunshine warming my toes, **U**nderwater fun with my friends. **M**aking mud pies on the porch, **M**any long nights chasing mosquitoes. **E**arly morning fun in the garden, **R**aving in the freedom of hot days.	**P**aper is ready, **E**raser on the end. **N**eed a sharpener now. **C**olour of the night. **I** use it everyday. **L**et me be creative.

1. Which one is your favourite? Why?
2. Give two reasons that support why these poems are examples of acrostic poems.
3. Find an example of figurative language in the poem about a pencil.
4. Do you think the writers of these poems have used figurative language effectively? Give a reason for your answer.
5. Brainstorm topics for acrostic poems, and write <u>two</u> acrostic poems of your own:
    a. Include an example of figurative language in at least one of your poems.
    b. Sketch an illustration for your poem.

Tuesday, 24 March

Time: 60 minutes

Learning Goal:
Students will write an autobiography.

Materials Required:
- Notebook
- Pen/ pencil
- Dictionary

Instructions for Learning:

Today, you will write an autobiography.

Plan a list of details you would include in an autobiography. For example: your date of birth, where you live, your family members, life experiences etc.

Write a 1 page autobiography. Include the following in your writing:

- A wide variety of parts of speech, in order to create longer sentences in your writing.
- Figurative language, to bring descriptions to life and help readers visualise.
- Interesting vocabulary - aim to find synonyms for common words.
- Punctuation for added effect, where possible.

Wednesday, 25 March	
Time: 60 minutes	**Materials Required:** Notebook Pen/ pencil
Learning Goal: Students will write a biography.	

Instructions for Learning:

Today, you will write a biography.

Pick someone at home you would like to write a biography about.

Write a list of questions you would like to ask this person, in order to write their biography. For example: When were you born? Where did you live as a child? What are the most important events you would like included in your biography?

Write a 1 page biography. Include the following in your writing:

- A wide variety of parts of speech, in order to create longer sentences in your writing.
- Figurative language, to bring descriptions to life and help readers visualise.
- Interesting vocabulary - aim to find synonyms for common words.
- Punctuation for added effect, where possible.

Thursday, 26 March	
Time: 60 minutes	**Materials Required:** Notebook
Learning Goal:	

Students will read a passage and make inferences.	

Instructions for Learning:

Read the passages below, and answer the questions that follow. You will need to make logical inferences based on evidence from the text. Explain your answers by referencing the text.

Example 1:
Screech! Karen stomped on the pedal the moment the light turned green. She looked over her left shoulder and whizzed past a truck. She zoomed ahead and looked over her right shoulder and then sped past a motorbike. She glanced at the clock on the dashboard and darted into the parking lot. Rushing into a parking bay, she grabbed her suitcase and ran through the parking lot, up the escalator, and into the terminal. Her heavy suitcase was bumping and bouncing the whole way. Just as she entered the terminal, she heard an announcement over the loudspeaker, "Final boarding call for flight 205 ..." Karen looked at her ticket and then at the line to get through the security checkpoint, which slithered like a lethargic snake all the way down the passage. Karen sighed and then slowly walked to the customer service desk.

1. Why is Karen in a hurry? How do you know this?
2. Why does she start walking slowly at the end of the passage?How do you know this?
3. What is Karen going to do at the customer service desk? How do you know this?

Example 2:
Brenda reached for the box of tissues. She blew her nose with thunderous force and then tried breathing through it again. It was still clogged. She stood up and immediately felt dizzy, but she regained her balance. As she tottered over to the phone, all of her muscles ached. She scrolled through and located the contact labeled "Work". She dialled the number and a couple of rings later, a familiar voice answered the phone, "You've reached FunTel Offices, how may I help you? Brenda moaned, "Oh, hey Bam, it's Brenda."
Bam responded with enthusiasm, "Hey, Brenda! I can't wait to see you today. What time are you coming to work?" Brenda grunted and replied, "Yes, well, actually, I need to talk to the manager."

1. Why is Brenda moving so slowly? How do you know this?
2. What is Brenda going to talk about with the manager? How do you know this?

Friday, 27 March	
Time: 60 minutes	**Materials Required:** Notebook Pen/ pencil
Learning Goal: Students will practice making inferences.	

Instructions for Learning:

Yesterday, you practiced making logical inferences from a reading passage.

Today, you will create your own practice activity for making inferences.

Write a short paragraph. In your paragraph, provide clues about the main event that is happening - but do not write it plainly. You can use the reading passages from yesterday's activity to help guide you.

Once you have written your paragraph, write 1-2 comprehension questions which require logical inferences to be made.

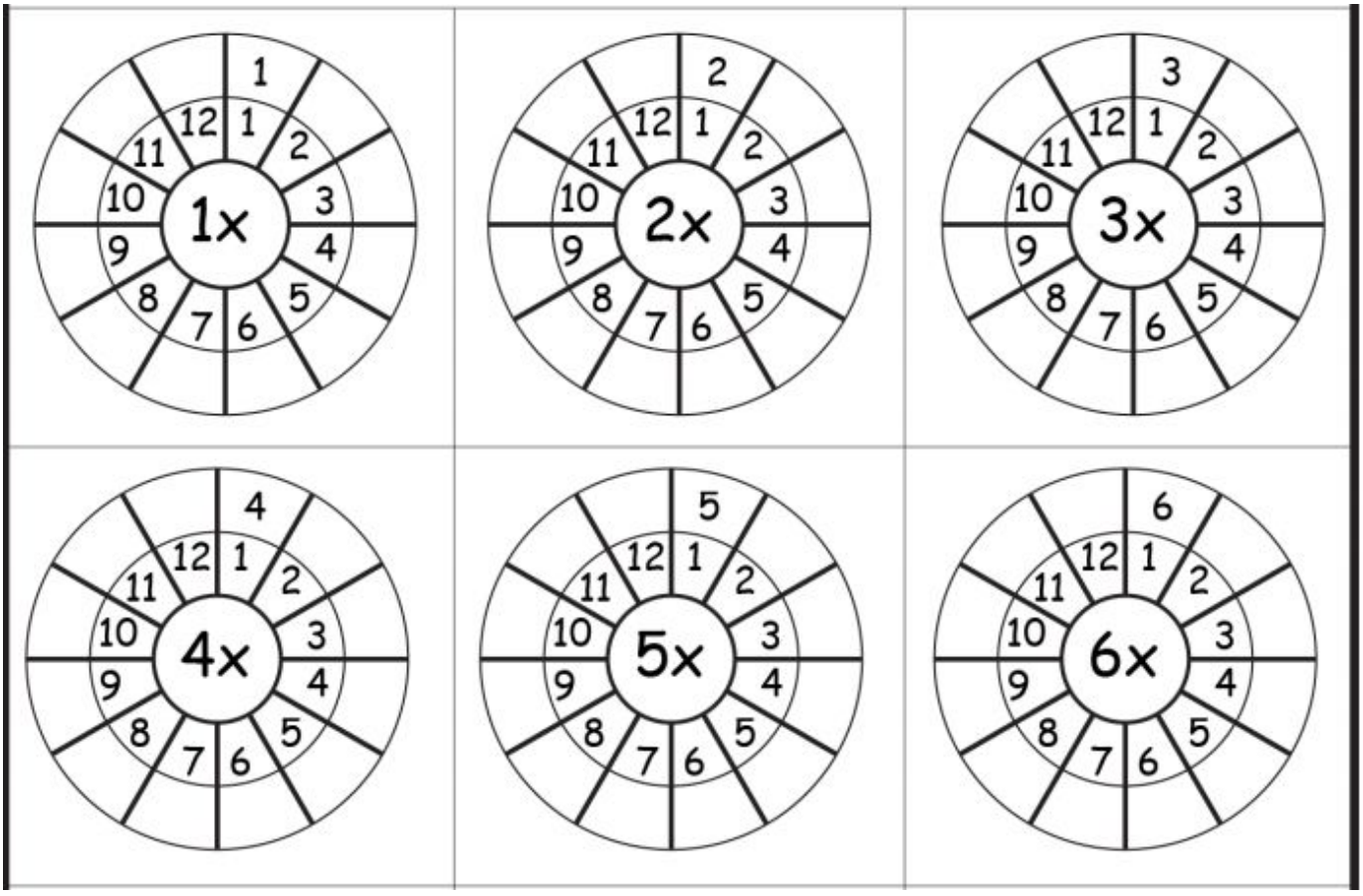
Give your paragraph and questions to an adult. Ask them to provide answers to the comprehension questions you have come up with.

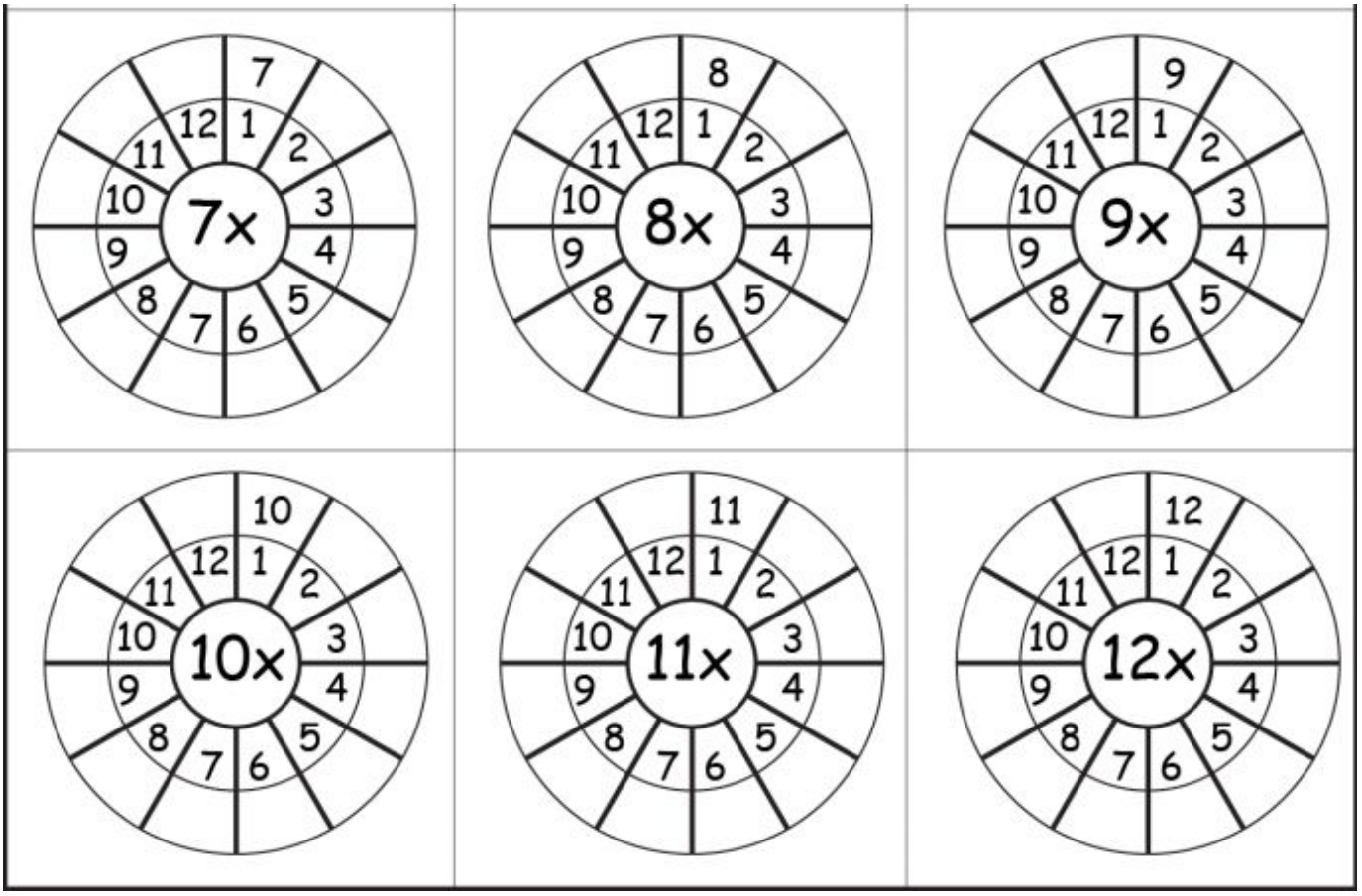
➕Mathematics Activities

Monday, 23 March	
Time: 45 minutes	**Materials Required:** • Pack of cards or homemade number cards • times tables worksheets
Learning Goal: Students will become proficient with times tables	

Instructions for Learning:
If possible, make copies of the times tables worksheet (below and available at https://www.worksheetfun.com/Multiplication%20times%20table/circletimestable1-12%20-1.pdf)

1. Ask your child to complete the times tables. For each circle, multiply the numbers by the centre number.
2. Ask your child to learn the times tables!
3. Ask questions in order first, then in any order.





Game

- This game, repeated often, helps children to memorise times tables.
- Choose a times table that she wants to remember e.g. 5 times table.
- Flip over a card from the deck. She must multiply the number on the card by 5.
- Continue flipping cards from the deck. She continues multiplying by 5. As she increases in confidence, flip the cards more quickly as the child internalises the answers.

- Do the same with other times tables. This can be done at any time during the day as a daily routine.

Tuesday, 24 March	
Time: 45 minutes	**Materials Required:** Worksheet provided or use the link https://s3-us-west-1.amazonaws.com/math-salamanders/Algebra/Basic-Algebra-Worksheets/algebra-word-problems-1.pdf
Learning Goal: The student will form algebraic expressions from written descriptions.	
Instructions for Learning:	

Students have started learning about algebraic expressions. It is important for them to understand that an expression is just a way of representing a description of a situation. It does not look at a solution, so there is no equals sign. It is not an equation. For example, the product of 3 and x is simply 3 x x, which we write as $3x$. So whatever x is, we have three times as many of x.

Complete the expressions for:

1) Product of 7 and m _____

2) p minus 6 _____

3) 2 divided by k _____

4) 2 times p _____

5) Sum of 9 and p _____

6) g is added to 8 _____

7) 2 less than d _____

8) Sum of h and 2 _____

9) 2 is subtracted from w _____

10) 8 minus r _____

Write down expressions for each of the following using algebra.

Example: '5 less than c' is 'c – 5' and '3 lots of g' is '3g'

1)	add 2 to **a**	=	a+2
2)	subtract 1 from **b**	=	
3)	double **c**	=	
4)	add 1 to **d**	=	
5)	subtract 3 from **e**	=	
6)	half of **f**	=	
7)	multiply **g** by 4	=	
8)	multiply **h** by 3	=	
9)	divide **i** by 3	=	
10)	add 4 to **j**	=	
11)	double **k** and add 1	=	
12)	double **l** and subtract 2	=	
13)	halve **m** and add 3	=	
14)	halve **n** and subtract 1	=	
15)	multiply **o** by 3 and add 4	=	
16)	multiply **p** by 5 and subtract 2	=	
17)	add 7 to **r**	=	
18)	add **s** to 7	=	
19)	subtract 10 from **t**	=	
20)	subtract **u** from 10	=	
21)	multiply 2 by **v**	=	
22)	multiply **w** by 2	=	
23)	divide **x** by 5	=	
24)	divide 5 by **y**	=	

Name Date

GENERATE EXPRESSIONS SHEET 2

Write down expressions for each of the following using algebra.

Example: '5 less than c' is 'c – 5' and '3 lots of g' is '3g'

1)	4 more than a	=	
2)	double b	=	
3)	10 less than c	=	
4)	a half of d	=	
5)	8 more than e	=	
6)	9 subtract f	=	
7)	4 lots of g	=	
8)	7 subtract h	=	
9)	14 less than i	=	
10)	multiply j by 4	=	
11)	divide k by 3	=	
12)	double l and add 2	=	
13)	halve m and then subtract 3	=	
14)	double n and then add 5	=	
15)	double o and then subtract 3	=	
16)	halve p and then add 6	=	
17)	subtract q from 10	=	
18)	subtract 10 from q	=	
19)	multiply r by 8 then add 1	=	
20)	divide s by 5 and then	=	
21)	multiply t by 4 and then	=	
22)	add 2 to u and then double it	=	
23)	subtract 3 from v and then	=	
24)	multiply w by 6 and then	=	

Wednesday, 25 March	
Time: 45 minutes	**Materials Required:** Worksheet provided or use the link https://s3-us-west-1.amazonaws.com/math-salamanders/Algebra/Basic-Algebra-Worksheets/algebra-word-problems-1.pdf
Learning Goal: The student will form algebraic expressions from written descriptions.	
Instructions for Learning: Continue practising to use algebraic expressions.	

Write down expressions for each of the following using algebra.
Example: '5 less than c' is 'c – 5' and '3 lots of g' is '3g'.

1)	**a** divided by 6	=	a/6 or $^1/_6$ a
2)	halve **b** and add 5	=	
3)	multiply **c** by 3 and subtract 7	=	
4)	subtract **d** from 12	=	
5)	subtract 12 from **e**	=	
6)	divide **f** by 4 and add 7	=	
7)	add 2 to **g** and then double	=	
8)	add 5 to **h** and then halve	=	
9)	subtract 4 from **i** and then multiply by 5	=	
10)	add 6 to **j** and then divide by 3	=	

13)	divide **m** by 3 and then add 10	=	
14)	add 10 to **n** and then divide by 4	=	
15)	add 5 to **o** and then halve it	=	
16)	multiply **p** by itself	=	
17)	divide **q** by 5 then add 6	=	
18)	add 6 to **r** then divide by 5	=	
19)	add 1 to **s** then multiply it by 6	=	
20)	subtract **t** from 6 then divide it by 4	=	
21)	multiply **u** by itself and subtract 6	=	
22)	add 1 to **v** and square the answer	=	
23)	subtract 2 from **w** then divide by 7	=	
24)	add 4 to **x** and divide 5 by the answer	=	

Time: 45 minutes	**Materials Required:** Worksheet provided or use the link https://s3-us-west-1.amazonaws.com/math-salamanders/Algebra/Basic-Algebra-Worksheets/algebra-word-problems-1.pdf
Learning Goal: Solve algebra word problems	

Instructions for Learning:
Students have worked with letters (variables) to represent amounts before. They have also solved problems. Now they need to solve problems using variables for the unknown numbers.

Name Date

ALGEBRA WORD PROBLEMS SHEET 1

Write the correct algebraic expression for each word problem.
See if you can spot the trick problem that doesn't need algebra!

1)	There are 12 packets of crisps in a big pack. I buy **n** big packs of crisps. How many packets of crisps have I bought?	=	**12n**
2)	There are **t** pencils in a pack. I buy 4 packs. How many pencils?	=	
3)	I have 6 pens. A friend gives me **n** more pens. How many pens do I have now?	=	
4)	A bag of apples contains 6 apples. I buy **w** bags of apples. How many apples have I bought?	=	
5)	I have a box of **d** chocolates. I eat 7 of them. How many chocolates are left?	=	

6)	The temperature is 62°F. It gets warmer by **h** degrees. What is the temperature now?	=
7)	There are 20 balloons at a party. **y** balloons are burst. How many balloons are left?	=
8)	There are **z** fish in an aquarium. ¼ of the fish are angelfish. How many fish are angelfish?	=
9)	There are 20 red and blue marbles in a bag. **s** marbles are red. How many are blue?	=
10)	In a class of **c** children, $^{2}/_{5}$ are boys. What fraction are girls?	=
11)	There are **s** cars in a carpark. How many wheels will they have in total?	=
12)	I have **u** soft toy salamanders. I get **v** more. How many salamanders do I have now?	=

Friday, 27 March	
Time: 45 minutes	**Materials Required:** Worksheet provided or use the link https://s3-us-west-1.amazonaws.com/math-salamanders/Algebra/Basic-Algebra-Worksheets/algebra-word-problems-2.pdf
Learning Goal: The student will solve Solve algebra word problems	
Instructions for Learning: Students have worked with letters (variables) to represent amounts before. They have also solved problems. Now they need to solve problems using variables for the unknown numbers.	

Name Date

ALGEBRA WORD PROBLEMS SHEET 2

Write the algebraic expression for each word problem.

See if you can spot the trick problem that doesn't need algebra!

1)	In a stable, there are **h** horses. 6 of them are taken out into the yard to exercise. How many are left in the stable?	= h-6
2)	There are **c** cyclists in a cycle race. ¾ of the cyclists finish the race. How many cyclists did not finish?	=
3)	There are 56 people on a bus. **t** people get off at the next stop and 3 more people get on. How many people are on the bus now?	=
4)	In a class of 30 children, there are **g** girls. What fraction of the class are girls?	=
5)	In a class of **c** children, there are 16 boys. What fraction of the class are boys?	=
6)	There are **b** people on a bus. At the next stop, 7 people get off and 10 more get on. How many more people are on the bus now?	=
7)	I cut a long piece of wood into 50cm pieces. I manage to cut **w** pieces of wood, and there is 20cm left over. How long was the wood to start with?	=
8)	I have **c** chocolates which I share equally between by 5 friends. How many do they each get?	=
9)	I have 5 pens already. I am given 2 packs of pens. Each pack contains **t** pens. How many pens do I have now?	=
10)	There are **d** deer and **p** pheasants in the woods. How many legs in total?	=

Challenge questions!
Determine which option(s) the variable 'e' could be. If none of the options could be the variable write 'none'.

Ex) $10e + 3 < 92$

A. 10
B. 4
C. 6
D. 2

1) $2 < 17 \div e$

A. 3
B. 1
C. 7
D. 4

2) $7e + 10 < 82$

A. 1
B. 10
C. 9
D. 5

3) $6e + 3 < 30$

A. 7
B. 6
C. 4
D. 2

4) $8 \times e > 71$

A. 10
B. 3
C. 8
D. 4

5) $107 \div e > 3$

A. 5
B. 8
C. 10
D. 1

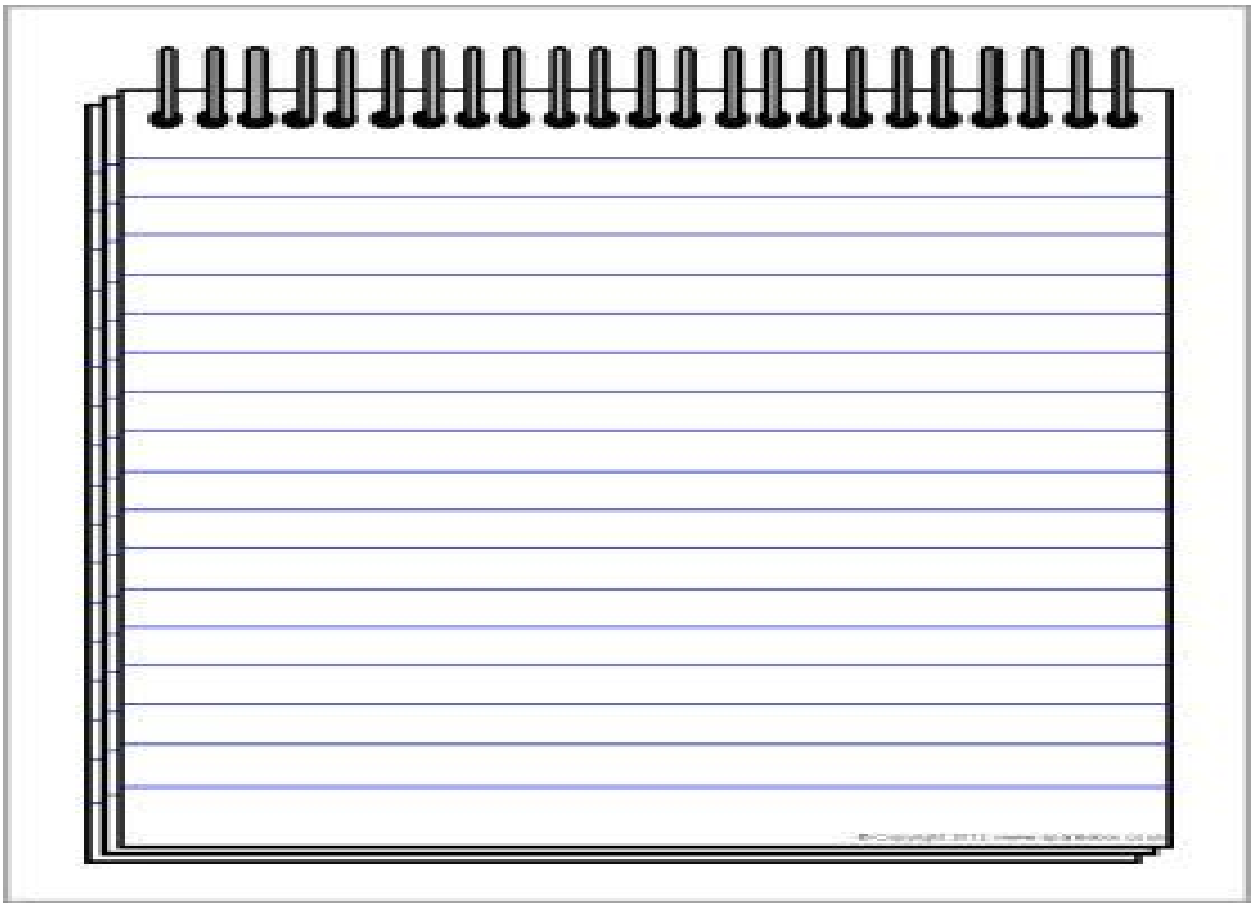
💬Second Languages Activities (SA)

Monday, 23 March	
Time: 30 minutes	**Materials Required:** Worksheet Pen / Pencil Dictionary / Google translate
Learning Goal: Students will create a list of questions to ask to 2 family members in an interview	

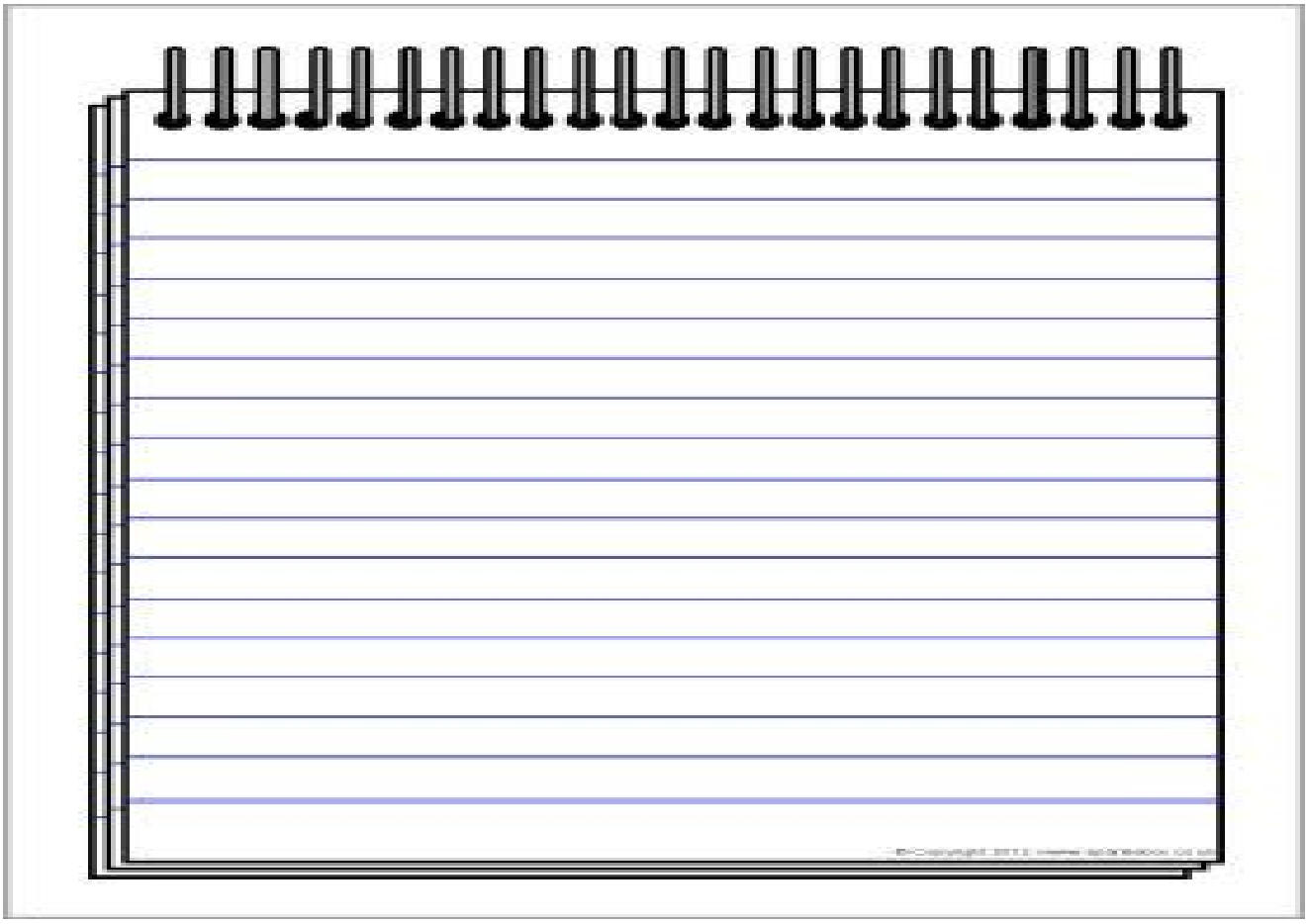
Instructions for Learning:

- Students will use this time to create a list of questions to two family members.
- These questions will be used for an interview that the student will have with the family members.
- These questions should dig deep to get to know these family members (only six questions per person)
  Example:
  * What was your dream when you were a kid?
  * When was your first school trip?
  * Where did you grow up?
  * What was the best thing to do when you were in...?
  * How do you feel about the Coronavirus?
- **Students will write these questions in their specific second language.(Afrikaans / IsiZulu / Setswana)**

Notepad Questions for Family member 1:



Notepad Questions for Family member 2:



Tuesday, 24 March - Geography	
Time: 50 min	**Materials Required:** Grade 7 social science platinum textbook Measuring they can use a ruler and a strings for accurate measurement Stationary Calculator
Learning Goal: Students should be able to read, interpret and convert scales. Students need to measure and calculate distance on a map.	
Instructions for Learning: Students will read the map and interpret the information. Students will convert the scales by using measuring equipment and calculate distances on the map.	

Distance and Scale

Name two ways in which scales are read on the map

_____
_____
_____

Draw a line scale for this word scale.

- 1cm on the map = 1000km on the ground.

- 1cm on the map is = 100 km on the ground in reality.

Study the map above and give the correct distance.

How far is it on the ground,from Johannesburg to Middleburg?use a ruler to calculate the correct distance.

How far is it on the ground from Bloemfontein to Libawakgamo.

What is the scale on the map of South Africa

Wednesday, 25 March	
Time:	**Materials Required:**

Learning Goal: Student will use the questions and have interviews with their specific family member	Notepad Questions for family members Pencil / Pen

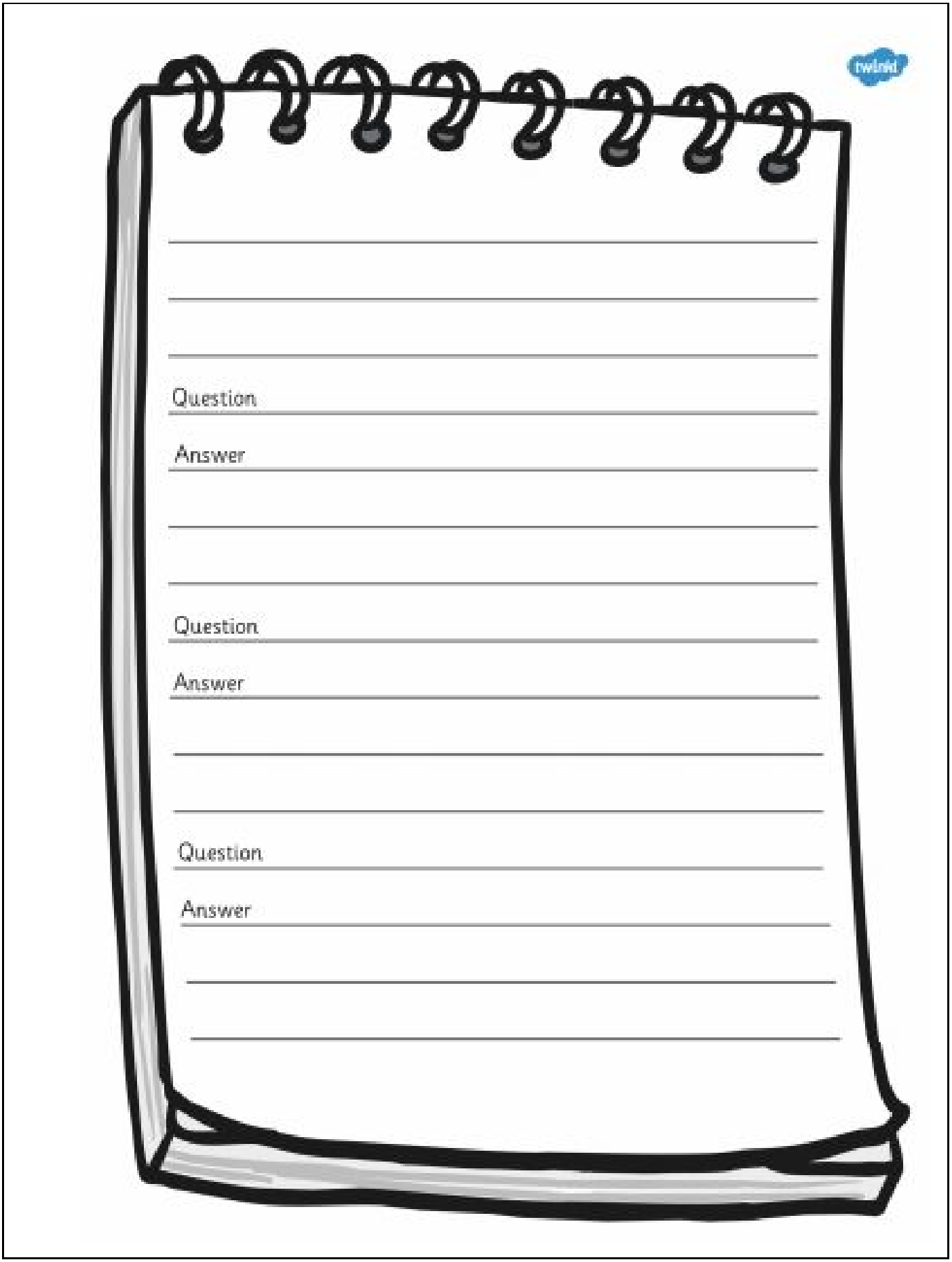
Instructions for Learning:

- Students will rewrite their questions on the Interview record sheet.
- Students will invite their family members to join him / her for an interview.
- Pick a place that is quiet and where no one can bother you.
- Students will have an interview with both family members at the same time. Ask the questions and make notes.
- Thank the person after the interview.
- **Students will ask these questions in their specific second language and then repeat it in English. If the family member can speak this specific additional language, they are welcome to answer the student in that specific additional language**

Interview Record Sheet

Decide who might be an interesting person to interview – who might people like to know more about? You could choose a neighbour, a local shopkeeper or a family member – the choice is yours. You could e-mail through a set of questions to someone or rewrite comments made by a famous person that you find online. Make a note of the questions you are going to ask below and jot down the answers your interviewee gives. Keeping your interview short and asking some really interesting questions will really help keep the readers of your final piece engaged.

Interviewee - Name	Occupation	Date and place of Birth


Question
Answer
Question
Answer
Question
Answer

Interview Record Sheet

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Interviewee - Name	Occupation	Date and place of Birth


Question
Answer
Question
Answer
Question
Answer

Thursday, 26 March - History	
Time: 50 min	**Materials Required:** grade 7 social science platinum textbook Stationary
Learning Goal: Students should list goods that were imported and exported in the kingdom of Mali during the 14th century. Students should identify the different means of transport that was used during trading. Students should be able to identify the attributes of a good leader focusing on Mansa Musa's leading style.	
Instructions for Learning:	

Write and draw 3 goods that were Imported into Mali and 3 Goods that were exported from Mali.

Goods Imported into Mali	Goods exported from Mali.

How did the camels navigate their way back from their different locations?

Explain in your own words why camels are sometimes called the ships of the desert?

Describe 2 countries that Mali traded with?

The reign Of Mansa Musa.

Study the Source below and answer the following questions.

Mansa Musa ruled the kingdom of Mali in the early 1300s. During that time, it became the epicentre of trade, luxury and learning. Musa exploited his country's gold and salt production to make his fortune. When Mansa Musa died in 1337, his thriving empire went into decline. He left behind an empire filled with palaces and mosques which still stand today. During the 200 years after his death there were many heirs unable to carry on his fortune.

What made Mansa Musa such a good leader? Describe the attributes a good leader needs to have?

How did Mansa Musa improve the running of the empire of Mali? state 2 things he did?

3.3.Name two export goods that Mansa Musa would have taxed.

Why do you think Mansa Musa liked to be called the Lion of Mali

Describe the effect on Mali after Mansa Musa's Death.

Friday, 27 March	
Time: 45 min	**Materials Required:** • Notes from the interviews • Worksheet • Pen / Color pens
Learning Goal: Student will write a report of what they have learned from the two family members	

Instructions for Learning:

- Students will read over their notes after the two interviews.
- Highlight the things that you didn't know before about these family members.
- Use these highlighted information and write a report of 120-140 words about it.
- **Students will write this report in the specific additional language (Afrikaans / IsiZulu / Setswana)**

Report Writing

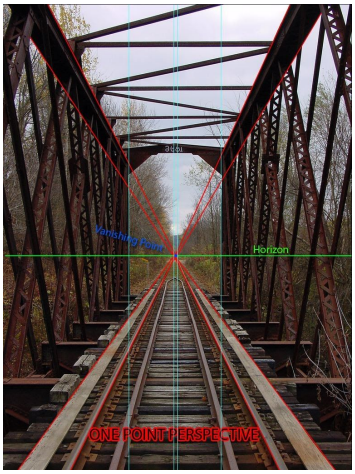
Name of Interviewer:	
Name of Interviewee:	
What do I know now about this person:	

Report Writing

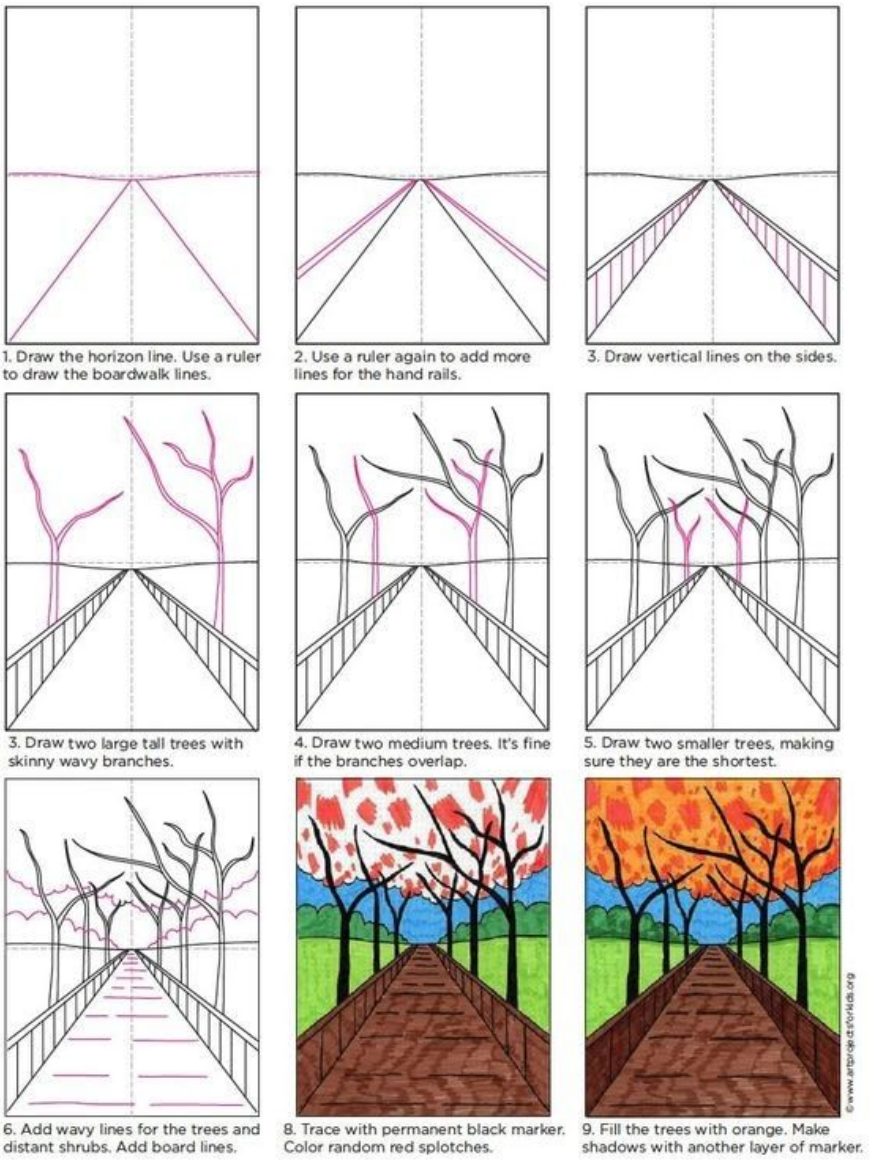
Name of Interviewer:	
Name of Interviewee:	
What do I know now about this person:	

🔬 Science / Technology Activities (SA)

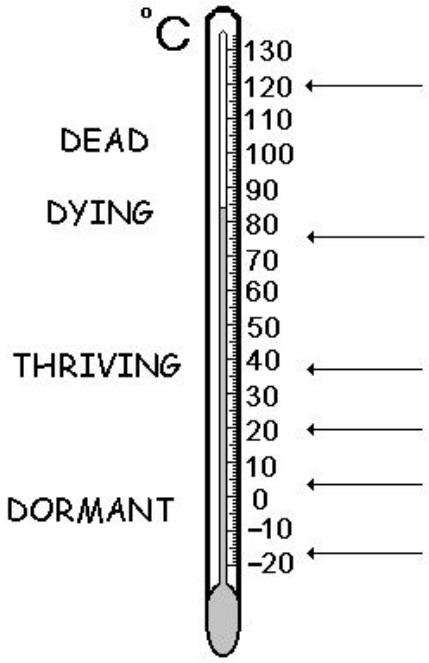
Monday, 23 March - Technology	
Time: 45 minutes	**Materials Required:** • Digital device for access to guidance materials • Notes on single vanishing point perspective in your Technology notebook • An H or HB pencil. • A ruler • Your sketch pad / A3 plain white paper • http://elementaryartfun.blogspot.com/2012/02/drawing-steps-for-one-point-perspective.html • https://artprojectsforkids.org/perspective-drawing-for-beginners/ • https://www.artwithmrsnguyen.com/2013/05/one-point-perspective-city-streets-5th.html?m=1 • Video: https://za.pinterest.com/pin/476959416784839490/
Learning Goal: • Students will explore 3D artistic drawings using a single vanishing point.	
Instructions for Learning: • **Guiding question:** How do artists draw streetscapes and landscapes using a single vanishing point perspective? • Each of the images below includes a single vanishing point. a) Study each image below and identify the vanishing point (VP).	



b) Draw an image in a single vanishing point perspective in your sketch pad / on A3 paper. You may use the images below for a guide on the steps to follow or refer to the links attached.



Tuesday, 24 March - Science	
Time: 45 minutes	**Materials Required:** ● Worksheet (pasted below) ● Notepad ● Stationary
Learning Goal: ● Learners explore how microorganisms affect quality, safety, production, processing, and utilization of food and food products	
Instructions for Learning: ● Learners think about the following: ○ Why are some microorganisms 'bad'? ○ How can we save our food from spoilage due to microorganisms? ● Look at the thermometer below	



- What do you notice about the labels on the left?
- What does this tell you about food preservation temperatures?

- Add the following labels to the arrows on the right:
  - Fridge
  - Boiling water
  - Freezer
  - Pasteurisation
  - Human body
  - Normal room temperature
  - Pressure cooker and UHT

- Explain the following:
  - Cooking food properly kills microbes
  - UHT milk can be kept for years as long as it is sealed.
  - Pasteurisation helps milk keep but does not stop it going off.
  - Never refreeze thawed food

- Complete the table showing preservation methods:

Method	How it works	Examples
Pickling	The food is put in vinegar. The acid vinegar stops microbes growing.	
Drying		Dried fruit
Preservatives	Preservatives are chemicals that kill microbes or stop them from growing.	

Canning	Food is cooked and then sealed so that no microorganisms can get in.	
Preserving (sugar)		Jams
Radiation	Radiation kills microbes.	
Salting		Biltong

- Reflect: Do a survey around your home
  - How many food products in your home are preserved?
  - What kinds of products are they?
  - What methods were used for preservation?

Wednesday, 25 March - Science	
Time: 45 minutes	**Materials Required:** • Stationary • Digital device (with Internet connection) • Your microbial friends
Learning Goal: • Learners explore helpful microorganisms in the human • Describe some of the diverse features of microbes that live in or on the human body. • Explain some ways in which microbes in our microbiomes help us.	

Instructions for Learning:

- Think about the following:
  - What is a microorganism (microbe)?
  - How can microbes be helpful in or on humans?
  - Where in the human body do we have microbes? What are their functions?

- In the human body we have trillions of microbes that help us to stay alive and healthy
  - *Did you know: According to a recent National Institutes of Health (NIH) estimate, 90% of cells in the human body are bacterial, fungal, or otherwise non-human. That means only 10% of you is yourself!

- Learners use their digital devices with internet to access Your microbial friends.
  - Spend the next 20 - 30 minutes exploring the interactive human and it's microbial friends

- Fill in the following tables (requires a little skipping around to different tabs):

Microbes in the **gut** help us:

1	
2	
3	
4	
5	
6	
7	
8	
9	

Microbes on the **skin** help us by:

1	
2	

Microbes in the **sinuses** help us by:

1	

Microbes in the **vagina** help by:

1	

Other:

1	

Thursday, 26 March	
Time: 45 minutes	**Materials Required:** ● Pen
Learning Goal: ● Learners will be able to discover some of the characteristics of life and see how they connect to real organisms.	

Instructions for Learning:

- What do all living things have in common?

- Look out of your window.
  - What living things can you see?
  - What makes them 'alive'?

- Complete the following:

1. Any living thing is called an _____ .
2. The basic unit of structure and function in living things is the _____ .
3. A reaction to a change in your surroundings is a _____ .
4. The source of energy for most living things is the _____ .
5. Everything around you is made up of _____ .
6. When two or more atoms from different elements join, they form a _____ .

1. What is the source of energy for the puppies in the illustration? _____

   _____

   _____

2. In what ways will the puppies change to become more like their mother? _____

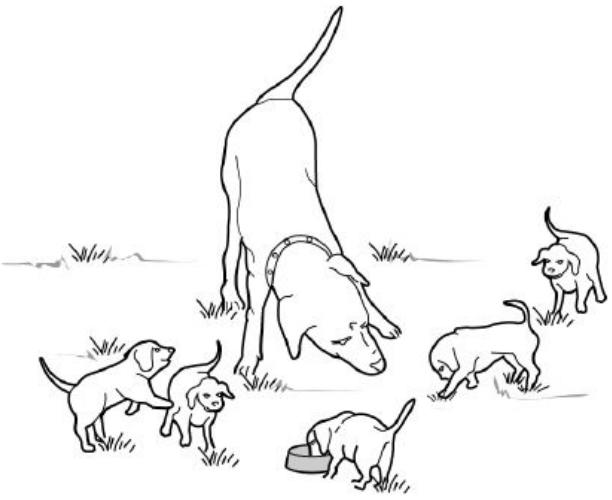
   _____

   _____

3. Which characteristics of living things are shown in the illustration? _____

   _____

   _____



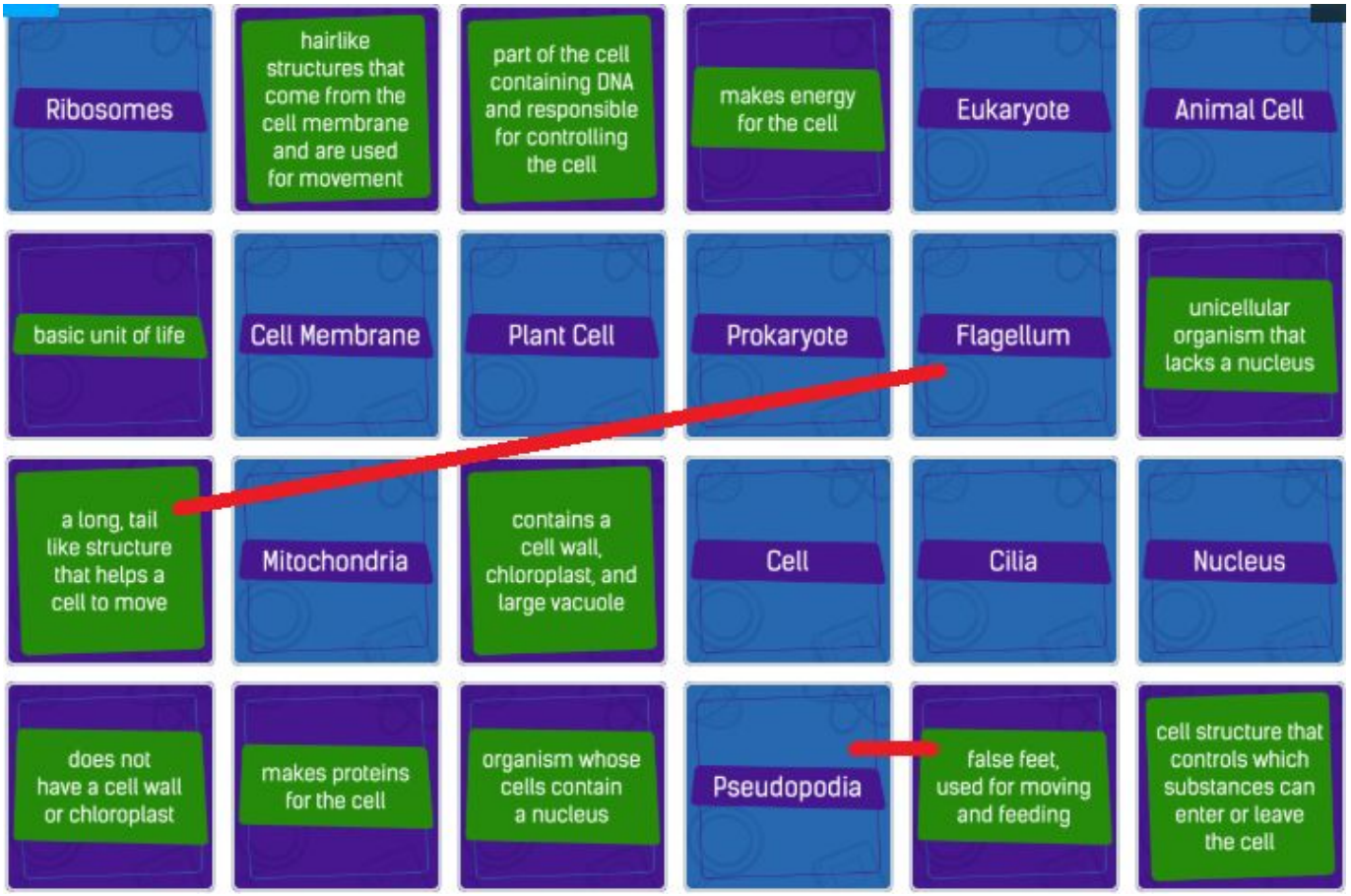
- Reflect:
  - Do you think microbes are alive?
    - *Think about this: It is important to define what you mention with "microbes". Protists, bacteria and other unicellular organisms have all the "machinery" necessary to leave and multiplicate. They do not need a host. However, viruses need a host in order to replicate.

Friday, 27 March

Time: 45 minutes	**Materials Required:** • Pen • Notepad
Learning Goal: • Learners explore plant and animal cells • Learners contrast and compare plant and animal cells	

Instructions for Learning:

Match the cell structure and the description to one another. Some have already been done for you.



- Do you remember?
  - What is a cell?
  - Where do we find cells?
  - What is the function of cells?
  - How do plant and animal cells differ?
  - How are they the same?

- Answer the questions below:

Interpreting Diagrams Use the terms listed in the box to label the diagram below. Write your answers in the spaces provided. Then, answer the questions.

TERMS

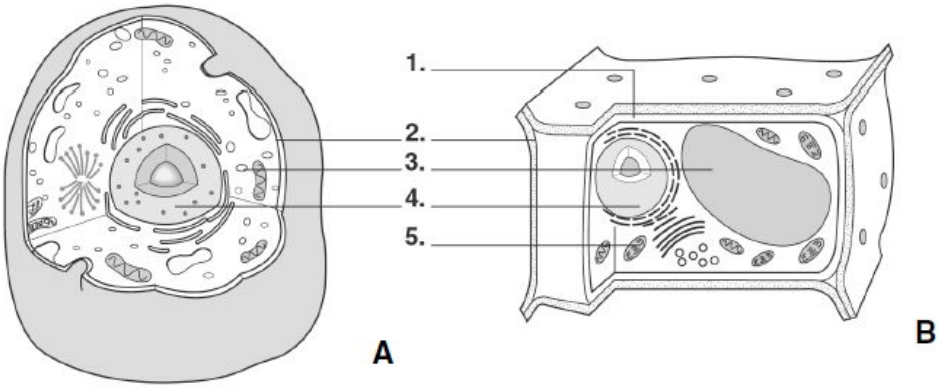
cell membrane

cell wall

chloroplast

nucleus

vacuole



1. _____

2. _____

3. _____

4. _____

5. _____

6. What kind of cell is shown in Part A of the diagram? _____

7. What kind of cell is shown in Part B of the diagram? _____

8. What are three jobs of the cell membrane? _____

_____

_____

9. What part of the cell is made up of cellulose? _____

10. What part of the cell is needed to make food? _____

Multiple Choice Write the letter of the term or phrase that best completes each statement in the spaces provided.

_____ **1.** A scientific tool that makes objects appear larger than they really are is a
a. scale. **b.** thermometer. **c.** balance. **d.** microscope.

_____ **2.** A piece of curved glass that causes light rays to come together or spread apart as they pass through is a
a. lens. **b.** meter stick. **c.** balance. **d.** microscope.

_____ **3.** The basic unit of structure and function in living things is the
a. nucleus. **b.** membrane. **c.** cell. **d.** chloroplast.

_____ 4. The thin structure that surrounds a cell is known as
a. a nucleus. b. a cell membrane. c. cytoplasm. d. a vacuole.

_____ 5. The control center of a cell is the
a. cell wall. b. organelles. c. cytoplasm. d. nucleus.

_____ 6. All the living material inside a cell, except the nucleus, makes up the
a. cytoplasm. b. membranes. c. vacuole. d. mitochondria.

_____ 7. The movement of material from a more crowded area to a less crowded area is called
a. osmosis. b. photosynthesis. c. respiration. d. diffusion.

_____ 8. Small, round structures in a cell that make proteins are known as
a. cellulose. b. ribosomes. c. vacuoles. d. mitochondria.

_____ 9. The movement of water through a membrane is called
a. diffusion. b. synthesis. c. osmosis. d. photosynthesis.

_____ 10. The process by which cells reproduce is
a. diffusion. b. osmosis. c. cell division. d. respiration.

_____ 11. The cell structures that break down food to produce energy are the
a. ribosomes. b. mitochondria. c. vacuoles. d. chloroplasts.

_____ 12. The cell structures that break down nutrient molecules and old cell parts are known as
a. ribosomes. b. lysosomes. c. vacuoles. d. chloroplasts.

Movement Activities

Monday, 23 March

Time: 45 minutes

Learning Goal:

- measure their pulse and recognise the difference in their heart rate after performing activities of different intensities
- recognise the link between their increased heart rate and increased exercise intensity
- explain the purpose of doing cardiovascular activities and give some examples of these activities

Materials Required:

- Music
- A large flat area to move around in.
- A stopwatch (most phones have one) or clock
- Paper
- Pen

Instructions for Learning:

Warm up exercise:

- Play some music and ask the learner(s) to dance to the music.
    - Each time you stop the music they must stop and hold the position for a few seconds. (This can be quite fun as some strange positions emerge)
    - After two minutes or so ask the learners to find their pulse
    - Instruct the learners to measure their heartbeat for 10 seconds
    - Ask them if it's higher now than it was at the start of the lesson.
    - Repeat the activity, and if there is someone else to work take turns copying each other's movements. Measure their heat rate again at the end of two minutes.

Finding your pulse:

The fingers should be on the thumb side of the wrist, diagonally behind the small bone.

- Each time you feel a slight bump (your pulse), it's a heartbeat
- Ask the learners to count their pulse for 10 seconds
- Ask them to count their partner's pulse.

Note that we only measure the heart rate for the first 10 seconds after an activity because it slows down very quickly when you've stopped exercising.

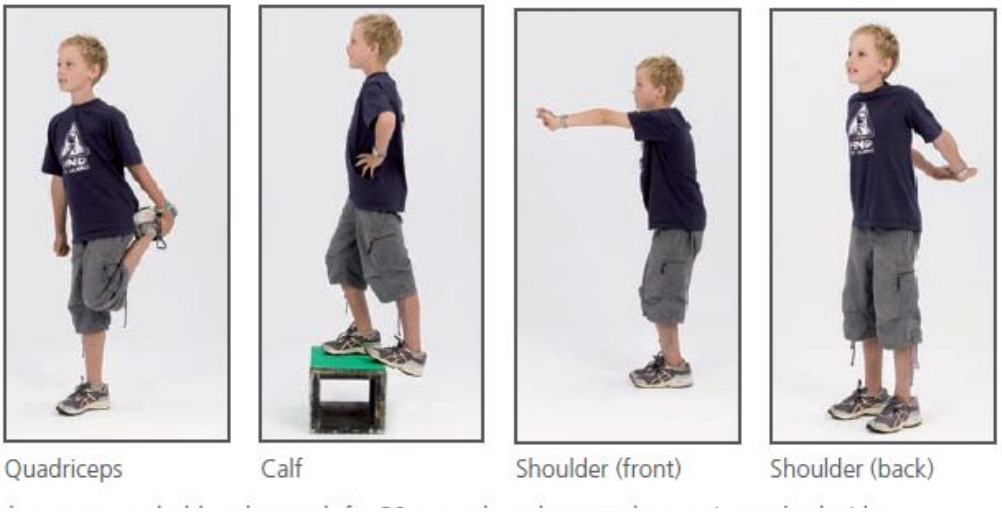
Activities:

- Mark a circular area out on the flat surface.
- Place several stations around the circle
    - The various circuit stations could include:
        - Run between two lines (about 10m apart) as fast as you can.
        - Do high knees or jog in place
        - Do sit-ups
        - Balance on one leg

        - Do star jumps
        - Stand on your toes
        - These stations can be adjusted for the abilities of the learners
- Start your stopwatch and instruct learners to start doing the activity at the station. After 30 seconds tell learners to stop
- The learners need to measure their own heart rate after doing the activity at each station and record it.
- Ensure you give the learners enough time to find their heart rate and record it.
- Learners then need to move from one station to the next. Ensure that the learners move in a single direction so that all stations are done.
- Learners can move around the stations multiple times to gather more data on their heart rates.

Cool down:

- Ask the learners to walk around the circuit slowly three or four times (for about 2 to 3 minutes)
- Do the following stretches. Hold each stretch for 20 seconds and repeat them twice on both sides



Reflect:

- Revise what the pulse is and which types of activities can make your heart beat faster or slower. Remind the learners how to measure their pulse.
- Ask the following questions:
    - What is a pulse?
    - Which activity resulted in your highest heart rate?
    - Which activity resulted in your lowest heart rate?
    - Why is it important to exercise so that your heart works faster?
    - Give examples of activities we can do to increase our heart rates.

Tuesday, 24 March	
Time: 45 minutes	**Materials Required:** ● Music ● Markers (this can be anything like bottles, caps, rocks, etc.)
Learning Goal: ● Understand and explain what strength training is	

• Identify activities that require strength • Be able to throw a ball, even if it's only a short distance • Identify two ways in which muscle strength can be improved.	• Chalk or paper or tape- used for hopscotch and tape balance beam

Instructions for Learning:

Warm up exercise:

- The learner has to walk, run, skip and dance. Encourage them to move in different directions and to use as much of the space you have available.

Activities:

- Cone running: Set up a row of four markers, spaced two metres apart from one another. The learner stands at the end of the row of cones. (five metres away from the cones) The learner must weave between the cones while they run

- Hopscotch: Draw with chalk outside (on a sidewalk or pavement) or use floor tiles or paper as markers inside. The learner plays hopscotch. If more learners are present, they can join in. Keep making the hopscotch course bigger and bigger to keep learners active and excited by all that jumping.

- Move like an animal: You'll need some open space, but this is a great way to get kids using new muscles. Here are some ideas: Move like a bird (run with arms outstretched); Move like a snake (wiggle on tummies on the floor); Move like a bear (walk on all fours); Move like a frog (get down on haunches and hop); Move like a kangaroo (take big leaps with arms in front of chest); Move like an elephant (with heavy stomping); Move like a penguin (waddle with ankles close together and arms pinned to sides).

- Tape balance beam: This is ultra simple, but surprisingly fun! Grab some tape, or chalk and set / draw it on the floor in different lines; make the lines zigzag, curvy, straight, or shaped like a circle, square, or other shape.Then challenge your learners to walk each colored line from beginning to end.

Cool down:

- Ask the learner to walk in a circle or square or any other shape
- While walking, ask them to do the following stretches. Hold each stretch for 20 seconds and repeat them twice on both sides

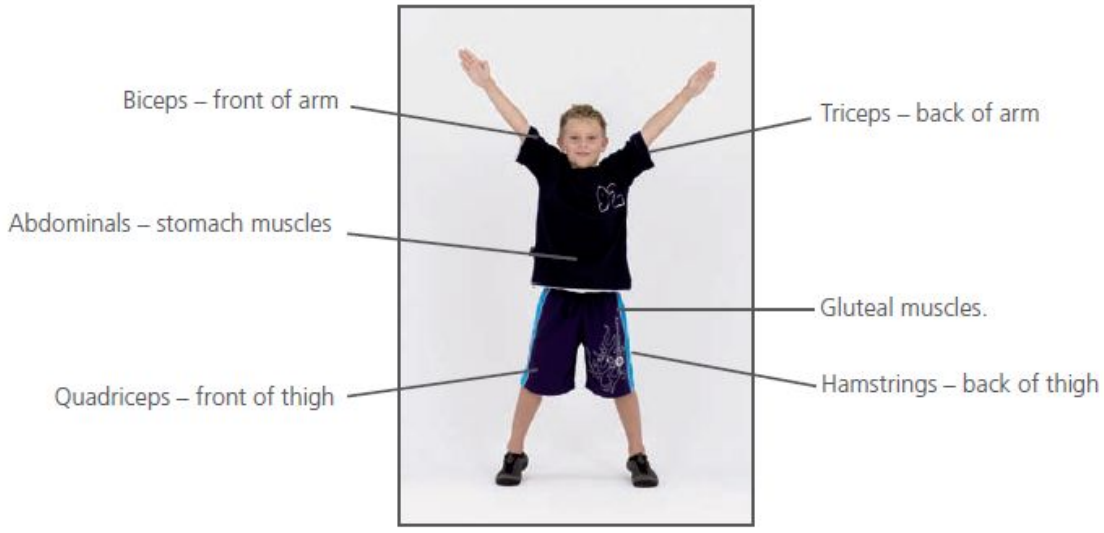
Back shoulder

Front shoulder

Tricep

Reflect:

- Ask learners to look at the following picture and identify which muscles were used in each activity.



- Ask the following question:
  - What is the importance of muscle strength?

Wednesday, 25 March	
Time: 45 minutes	**Materials Required:** • Paper or hula-hoops or tape or chalk • bean bag or ball or similar • Cones or bottles
Learning Goal: • Learners identify the benefits of physical activity	
Instructions for Learning: Warm up exercise: • Each time you call out a letter of the alphabet, the learners have to lie down and position themselves to form that particular letter	

- In between calling out the letters, have the learners jog or march on the spot for about 10 seconds. You can blow a whistle to indicate the start and end of the 10 seconds.

Activities:

1. Make three hoops using paper or hula hoops or tape or chalk. Line three hoops up one behind the other with the third hoop at least 8m from the first hoop. The learner has to aim to throw the bean bag or ball or similar into the furthest hoop without it touching the sides of the hoop

2. Mark a target on a wall using paper: you can draw a smaller circle in the centre of your paper. Make the starting line at least 8m away from the wall. The learner has to aim to hit the square. The more advanced learners can aim to hit the circle in the centre.

3. Arrange 10 cones or bottles: arrange six to 10 cones in a triangle with the base of the triangle furthest from the starting line. The start line needs to be at least 10m from the cones. Roll a ball towards the cones, trying to knock as many down at a time as they can.

Cool down:

- Instruct the learners to do following stretches. Hold each stretch for 20 seconds and repeat them twice on both sides

Hip flexor stretch

Hamstrings

Quadriceps

Reflect:

- Ask the learner of the benefits of the activities they have done.

Thursday, 26 March	
Time: 45 minutes	**Materials Required:** • Cultural music • Youtube videos as inspiration: Traditional Zulu dance Traditional Xhosa dance Traditional Sotho dance Traditional Indian dance Traditional Afrikaner dance
Learning Goal: • Choreograph a short creative dance sequence • Be able to explain different cultural dances.	
Instructions for Learning:	

Warm up exercise:

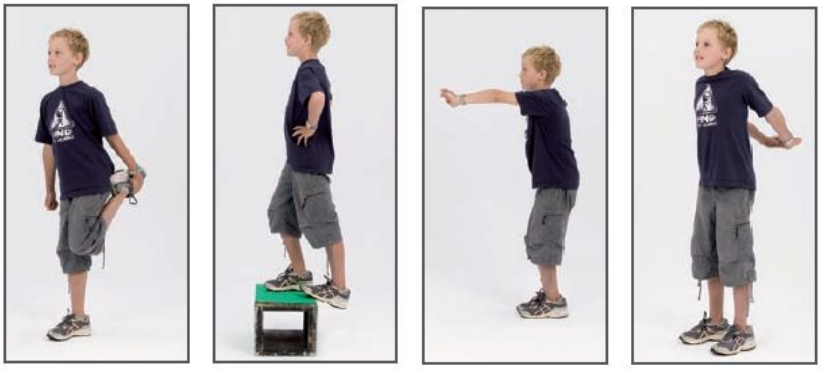
- Play some music and ask the learner(s) to dance to the music.
    - Each time you stop the music they must stop and hold the position for a few seconds. (This can be quite fun as some strange positions emerge)
    - After two minutes or so ask the learners to find their pulse
    - Instruct the learners to measure their heartbeat for 10 seconds
    - Ask them if it's higher now than it was at the start of the lesson.
    - Repeat the activity, and if there is someone else to work take turns copying each other's movements. Measure their heat rate again at the end of two minutes.

Activities:

- Ask the learner to pick a genre of dance. For example, hip hop, jazz, contemporary or ballet.
- Ask the learner to choreograph a traditional dance in the genre of dance they have chosen. For example a traditional Zulu dance performed in jazz style.
    - It might be easiest for learners to do a cultural dance they are familiar with in a different style. Or if they are up for a challenge give them an unfamiliar traditional dance with some videos for inspiration.
- Once satisfied with the dance, ask the learner to perform it and an adult to record it. Share it with your teacher, family and friends.

Cool down:

- Ask the learner to walk around in a circle slowly three or four times (for about 2 to 3 minutes)
- Do the following stretches. Hold each stretch for 20 seconds and repeat them twice on both sides



Reflect:

- Ask learners the following questions:
    - Why do people dance?
    - Why do different cultures have different dances?
    - What benefits does dance have?
      [Dancing is a form of physical activity and therefore provides excellent health benefits. In addition, dance is an art form and an outlet for expressing feelings and emotions.]

Friday, 27 March

Time: 45 minutes	**Materials Required:** ● Music ● Towel or mat ● Alphabet yoga
Learning Goal: ● Learners practice pattern moving ● Learners practice multiple movement and thinking strategies simultaneously	

Instructions for Learning:

Warm up exercise:

- Play a CD and instruct the learner to do movements such as dance, walk, jump, hop or skip while the music is playing. Each time the music stops, they must do a different movement when it starts up again.

Activities:

1. Do Pattern Dancing: Have the learner come up with a dance that represents a pattern. For example, to demonstrate an ABCB pattern, they could do a hop, a skip, a spin and a skip. Call out patterns and have the learner perform the sequence.

2. Categories: Call out a category and have the learner stand up and clap their hands and stomp their feet while they name as many items in that category as they can. See how many nouns or verbs or prime numbers or animals they can get in a row before they miss a beat.

3. Alphabet yoga: Put down a mat or towel, challenge the learner to do a yoga pose for various letters of the alphabet.
   A – Airplane (hold still and move arms to the side)
   B – Bicycle (lie on your back and pedal your feet)
   C – Cat pose (get on all fours; then round your back while tucking in your chin; release)
   You can choose random letters or do the whole alphabet. Learners are encouraged to make their own poses or if they get stuck with thinking of a pose refer to Alphabet yoga.

Cool down:

- Ask the learner to walk in a triangle or square or any other shape
- While walking, ask them to do the following stretches. Hold each stretch for 20 seconds and repeat them twice on both sides

Back shoulder

Front shoulder

Tricep

🔭Exploration Activities

Monday, 23 March	
Time: 30 mins	**Materials Required:** Digital device (with Internet connection) to view Nearpod lesson slides Optional: Notebook & Pen/Pencil 💻**Experiencing Technology Challenges**❓ In order for us to get a better picture of your technology possibilities at home, please could you fill in this 3-minute survey to help us better plan ahead. Deadline is ***Wednesday, 25 March EOD***
SEL Moments: How is My Body Feeling? **Learning Goal:** Students will practice noticing how their body feels and consider why it is useful to express feelings through words.	

Instructions for Learning:

1. Open the lesson slides on a digital device connected to the internet.
2. Enlarge the screen by clicking on the expand icon on the top left corner of the opening slide.
3. Then click on the "preview" button. If prompted to *buy*, simply click "continue with preview".
4. Navigate through the slides step by step with your child using the left/right arrows. Some slides may have multiple slides on them, then use the up/down arrows on your keyboard to navigate.
5. Read the text and follow the instructions, respond to the questions and other interactive elements on the slides with your child.
    a. If you are struggling to use your digital device to answer the questions and prompts with your child, then invite your child to use a notebook and pen/pencil instead to respond to the questions and activity prompts on paper (especially the drawing exercises).
    b. For the class discussion (or Think-Pair-Share) prompts, simply discuss the question with your child or invite them to discuss with a sibling.
    c. For the Collaborate, Open-Ended Questions, Quizzes and Polls, invite your child to answer for themselves (resist the temptation to give them the answer … rather ask them a better question: What about..? How you thought about …?)

Tuesday, 24 March	
Time: 30 mins	**Materials Required:** Digital device (with Internet connection) to view Nearpod
Mini-Video Lesson: Bacteria & Viruses **Learning Goal:** Students will *identify* and	

describe the differences between viruses and bacteria	lesson slides Optional: Notebook & Pen/Pencil 💻**Experiencing Technology Challenges** ❓ In order for us to get a better picture of your technology possibilities at home, please could you fill in this 3-minute survey to help us better plan ahead. Deadline is ***Wednesday, 25 March***
Instructions for Learning: Open the lesson slides on a digital device connected to the internet and read/follow the instructions on the screen. The same additional instructions apply as previous lessons.	

Wednesday, 25 March	
Time: 45 mins	**Materials Required:** Digital device (with Internet connection) to view Nearpod lesson slides Optional: Notebook & Pen/Pencil 💻**Experiencing Technology Challenges** ❓ In order for us to get a better picture of your technology possibilities at home, please could you fill in this 3-minute survey to help us better plan ahead. Deadline is ***Wednesday, 25 March***
COVID-19: Germs & Staying Healthy **Learning Goal:** Students will • Learn what germs are and how some of them can make us sick • Compare two common types of germs: viruses and bacteria • Explore ways to prevent the spread of disease-causing germs, such as viruses and bacteria	
Instructions for Learning: Open the lesson slides on a digital device connected to the internet and read/follow the instructions on the screen. The same additional instructions apply as previous lessons.	

Thursday, 26 March & Friday, 27 March	
Time: 2 x 45 mins (Note: this lesson spans over two days) Lesson 1: Slides 1 - 30 Lesson 2: Slides 30 - 60	**Materials Required:** Mindfulness Journal (Notebook & Pen/Pencil) to respond to open-questions Digital device (with Internet connection) to view Nearpod
SEL Project: Let's Breathe	

Essential Question: How can we cultivate mindfulness to bring awareness to our inner and outer life? **Learning Goal:** Students will ● Define mindfulness ● Identify a mindfulness practice to cope with stress	lesson slides

Preparation Notes:

- ❏ Preview the lesson before teaching and try to listen to two mindfulness practices before the lesson
- ❏ It is desirable for students to have a mindfulness journal / notebook to help integration into daily life.

Instructions for Learning:

Open the lesson slides on a digital device connected to the internet and read/follow the instructions on the screen. The same additional instructions apply as previous lessons.