Keep kids learning

Dear Parents/Caregivers

This student work pack is a resource for you to support your child's learning from home during this time. We know that every child is unique in their learning journey as they have different interests and strengths. Families can use these packs in different ways to suit their needs.

These learning materials can be used when and as you think best for your child. There is no requirement for students to complete everything contained within the pack, or to do the activities in any order.

To assist parents/caregivers to use these materials, we have divided the materials contained within the pack into ones to use daily:

- 1. English especially reading with your child
- 2. Maths many can be done actively, with materials around your home
- 3. Wellbeing we know it is so important at this time to keep students healthy and work on their strengths

There are also other learning areas you can use as projects or fun activities with your child:

- 1. Arts
- 2. Humanities and Social Sciences
- 3. Science

If you would like to ask about these activities, you can email us on homelearning.doe@nt.gov.au

There are also a number of online educational resources and activities that you may like to use with your child. Please use the following internet address <u>https://nt.gov.au/learning-together</u> to access these materials.

Thank you

We acknowledge and thank our state and territory government colleagues for their materials contained in this pack

Literacy

This book has literacy activities to support your child in their learning. These activities support their **reading**, **talking** and **writing** skills.

Children learn by copying adults. Learning with you and other family members in a fun way is important. They also learn by playing and doing things themselves and with other children. They learn to talk by listening to adults and other children. They learn about reading through listening and by practising. Mistakes are part of their learning.

Many of the activities encourage family participation and can be done with younger or older family members. We encourage this, but remember there are many activities that your children can do by themselves. If they can read the pages by themselves they may only need a little guidance.

Encourage your child to listen, talk, read, write, think, view and problem solve. This will support your child learning through talking. Avoid interrupting and listen to the whole of what they are communicating. Give positive messages to show that you are interested (nodding, smiles, gestures). It is also important to read, write and talk in your home language as well as in English.

How can I support my child?

Read through the activities first. Start with an activity that you are comfortable with and that suits your child. For example, if you read with your child, start with reading a book. If you cook with your child, read through a recipe with them.

The activities are a guide, and you can change these activities to suit your child. Think about - what is your child interested in? What games or equipment do you have that you can use to support their reading, talking and writing?

Some activities you can do together are: reading together, drawing, singing, role play, storytelling, reciting poems, game playing and rhyming. When reading together, take turns with your child to read a story. Ask them to share what they are thinking. What does the story remind them of? What questions do they have?

If your child is not ready to start writing on their own, you can give them support. This can mean talking together about their ideas and writing these down for them. Read a story and find the important words. Write these words out for your child and encourage them to have a go at writing them too.

Give them positive feedback and ask them questions. Try to ask open-ended questions. These are questions that need more than a yes or no answer, and that ask them to think and explain. This will boost their reading interest, increase their thinking skills and help them to understand the story.

Open ended questions also build oral language skills as you explore or play together. Not all learning happens at the desk.



Literacy Resources

See the outline below to help guide you through the Literacy Resources

At home literacy activities - talking, reading and writing

Description: These are ideas for activities and learning experiences with your children. Most of them are activities that can be repeated as often as you would like. Some may be things you would like your child or family to do every day or every week.

Visual prompts

Description: These are a range of photos, images and pictures that your child can use to support some of the activities in the 'At home literacy activities'.

Comic strip templates

Description: These are blank comic strip templates that children can use to write their own comics. See 'At home literacy activities' for more information.

Writing Structures to support Your Child When Writing

Description: This is not an activity; they are visual supports to support your child when writing different types of texts.

Ways to help develop your child's thinking and talking skills

Description: This is not an activity they are questions that you could use to help when discussing and talking with your child.

Structural features of poetry

Description: These pages show examples of the different ways poetry is created. Support your child to read the text through having turns reading if required.

Activity Instruction: What other poems do you know? What structural features are used in them?

Poetic language devices

Description: this page outlines the different language techniques that can be used in poetry and writing. Support your child to read the text through having turns reading if required.

Activity Instruction: Can you think of additional examples for each of the language devices? What other poems do you know? What language devices are used in them?

Poetry matching game

Description: this activity is a matching game to check your child's knowledge of poetic devices and features. Support your child to read the text through having turns reading if required.

What is needed: scissors

Activity Instruction: instruction provided. Can you make your own matching game using your own examples and definitions?

Playground rhymes

Description: this activity supports your child to create their own poetry. Support your child to read the text through having turns reading if required.

Activity Instruction: Read each poem. Fill in the blanks to create your own poem. This can be repeated by writing your own additional poems. You may want to create an illustration to go with the poem.

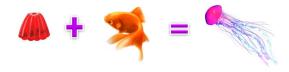
Compound Word sort

Description: this activity checks your child's understanding of compound words and syllables. A syllable is part of a word. For example, music has two syllables; mu/sic. A compound word is made up of two base words that create a new meaning. For example, jelly and fish create jellyfish.

What is needed: scissors and glue

Activity Instruction: cut each word and sort them under the headings of two syllables or three syllables.

What other compound words can you think of? Could you illustrate each of the compound words? E.g.



Jelly + fish = jellyfish

Unusual plurals and past tense

Description: this activity checks your child's understanding of plurals and using past tense. Plurals are words that describe a collection of more than one. For example, nails. Past tense words describe an action that has already happened. For example, ran is past run is present.

What is needed: scissors and glue

Activity Instruction: cut each word and sort them under the headings of plurals or past tense. Can you think of any more words to add under each heading?

Use of direct speech

Description: this activity requires your child to use direct speech.

- Direct speech puts all spoken words and punctuation inside " "
- The first spoken word inside the speech marks must use a capital letter.
- When a new speaker begins, we use a new line.

For example,

Tom said, "There is a tiger outside!"

"AAHHHHH!" screamed Lily.

Tom quietly whispered, "Don't move."

Activity Instruction: instruction provided. What other direct speech conversations can you think of?

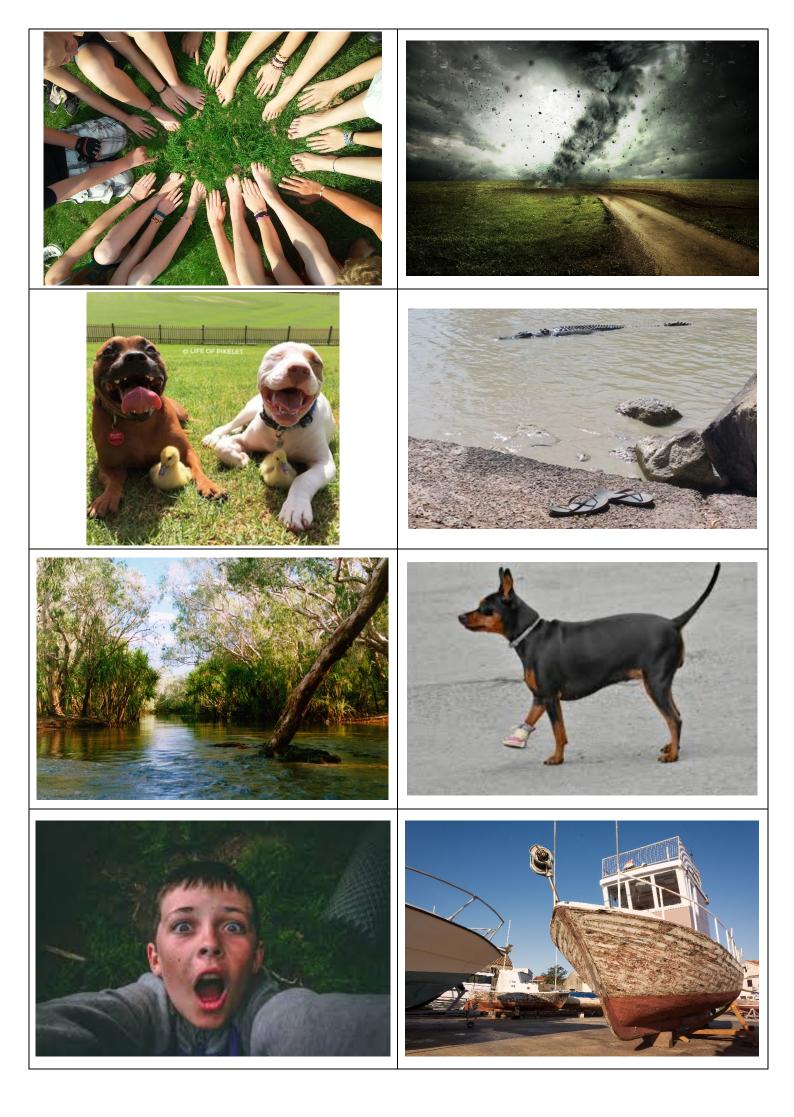
Achonic Learning Eleracy Activities (Taiking, Reduing	
 Talking for learning Ask your child to discuss with you a wide variety of topics. Some topics will come up in day to day activities or other learning activities, other topics that you could initiate discussions about could be: different jobs, what jobs do you think are most important, what would you like to do for work; families, are they all the same or are some different, what makes a family; holidays, favourite place to relax, most important bit of knowledge you have, most important things you do. See 'Ways to help develop your child's thinking and talking skills' page. Encourage your child to talk more deeply about a topic, so ask for more information, ask why, ask for examples, see if they can explain something a different way. Discuss different ways to solve problems. What would happen if? Ask your child to give reasons for his or her choices when making a decision. Listen and respond in ways that encourage further thinking aloud, rather than ending the conversation with your opinion. Remember not to talk too fast, talk at a normal pace and volume and use adult words. Encourage them to ask about words they don't understand and explain new words or topic specific words to them. If possible, help your child listen to and share ideas in a safe way with a range of people from various backgrounds and age groups. This could be with family members, over the phone or if you have access over videos online. 	 Sharing opinions Listen to your child talk about a story they have read, a picture they like, an activity they have done or a favourite memory. Ask them to share why they chose it, what they like about it or don't and why. Ask questions to find out more information. Encourage your child to write and draw about what they have talked about. Is it appropriate to add a diagram to support what they were talking about?
 Talking about books or shows Talk to your child about the choices an author or filmmaker might make to create a book, play or film in a particular way. If your child is interested they might like to investigate this further. Before and after viewing the show/movie, discuss the topics, characters, values and attitudes in it. Talk about language choices and why characters look or behave in certain ways. What is the purpose of the writing or film? Does it change the way you feel or think about a certain subject? How do the issues in the writing or film meet with the values and attitudes in your home culture? Some responses you could use with your children could be: "Tell me more!", "That's interesting!", "I never thought of that", Remember your child doesn't need to have to have a convincing argument for everything, and as a parent you don't have to know everything. Just listen to them and help them join in a conversation. 	 Saying it out loud Singing songs, chanting rhymes and poems helps your children project their voice, learn rhyming and develop confidence in speaking. Share your favourite poems, rhymes, chants or songs with your children. Learn them together. Practice and perform for other family members friends or record to share with others. You can make costumes or props for effect. Have a go at changing one to make it new or making up a new one together.
 Remember: Don't lecture but ask questions and encourage thinking. There aren't always right or wrong answers. 	See if your child can change or write their own.

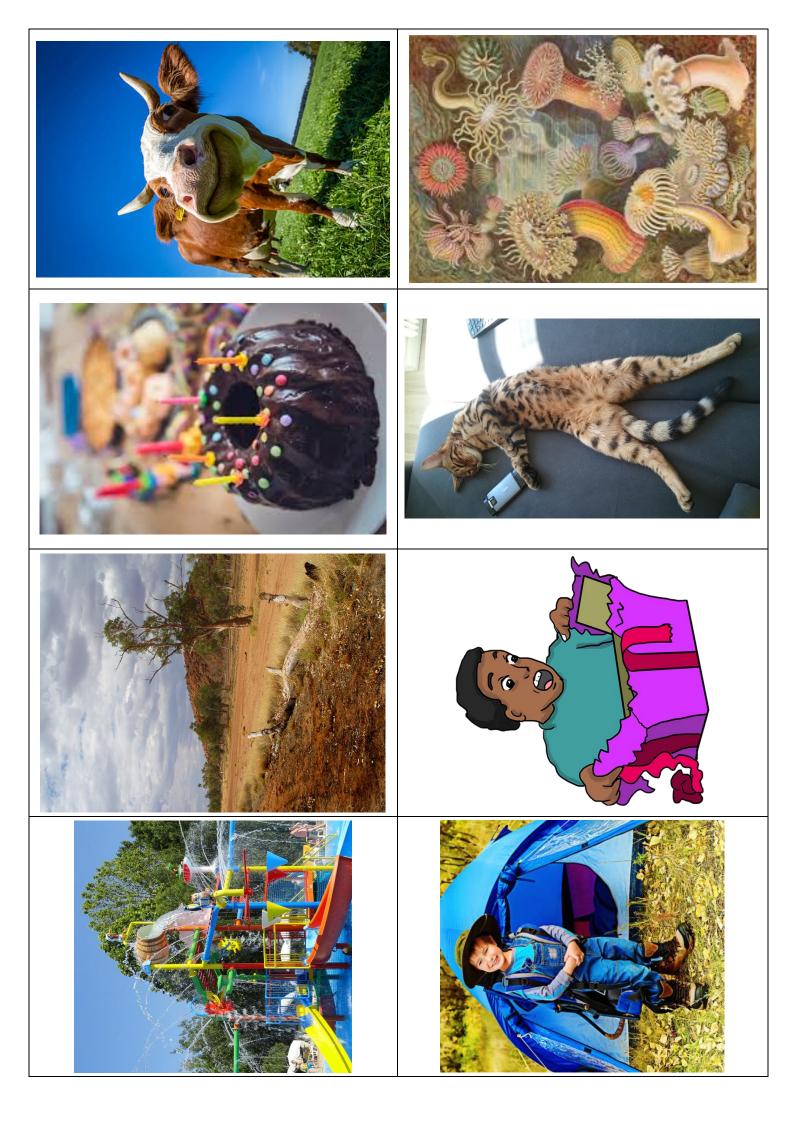
Read everyday Listen to your child read every day. Your child could read books at home, pamphlets, instructions, cookbooks, boxes, writing you or other children/adults have written. If you have access to online resources see 'Book online'. Here are some ideas to use but remember some reading should just be for pleasure. Also see the 'Questions to ask about reading' page for more ideas and questions to ask. I look at the cover, title, pictures and talk about what the book might be about I talk about the story so far and what might happen next I after reading, talk about the story and ask questions I talk about the pictures and how they add meaning to the text I take turns when reading a harder book. Remember the three Ps for new words: pause, prompt, praise. That is, allow your child time to work out the word (pause), use clues taken from the context (prompt) and praise your child for trying. If necessary, however, simply tell your child the word	 Having fun with voices Try reading with different voices, lots of emotion, invented sound effects and funny faces. Change the tone in your voice, vary the loudness or softness of your voice. Have fun and enjoy it.
 word. Books online If you can, find a book online. If you are searching for a suitable book to read, try Entering a publisher or an author's name into a reliable search engine, such as Google. Some reliable publishers are Scholastic, Penguin, Allen & Unwin and Pan Macmillan. These publishers have their own databases that will allow you to preview recent releases, read sample extracts, covers and read brief overviews. Some sites you could visit are: Oxford Owl, Storyline Online, International Children's Digital Library, Mrs P's Magic Library, Open Library, Amazon Free Kids Books, Barnes and Noble Free Nook Books for Kids, Vooks Free. The public libraries can also be accessed online and digital resources can be borrowed. If you or your children are not already members you can join online. Many of the libraries also have Facebook pages and have begun doing story times online. If you have Facebook you could look at what libraries are sharing online with your children. 	 Read together Read with your child. You could take turns. You could be a different character each. Your child may just enjoy hearing you read to them. Together you could create a special reading place in your home with your child's favourite books within easy reach. Let your child help decorate it with patterns, shapes and designs.
 You can also find online books that are read to you. Read for others Choose an appropriate book to read to a younger family member or friend. How can you make the story exciting? Practice reading it before you read it to the family member or friend. If you can, you could record yourself reading and share with family members or friends not there. You could make your own drawing to go with the story or puppets to act it out. 	 Making connections Ask your child which parts of the book they found exciting, funny or different and why. Is there another story, movie, memory or picture that the book they just read reminds them of? How does it remind them of it?

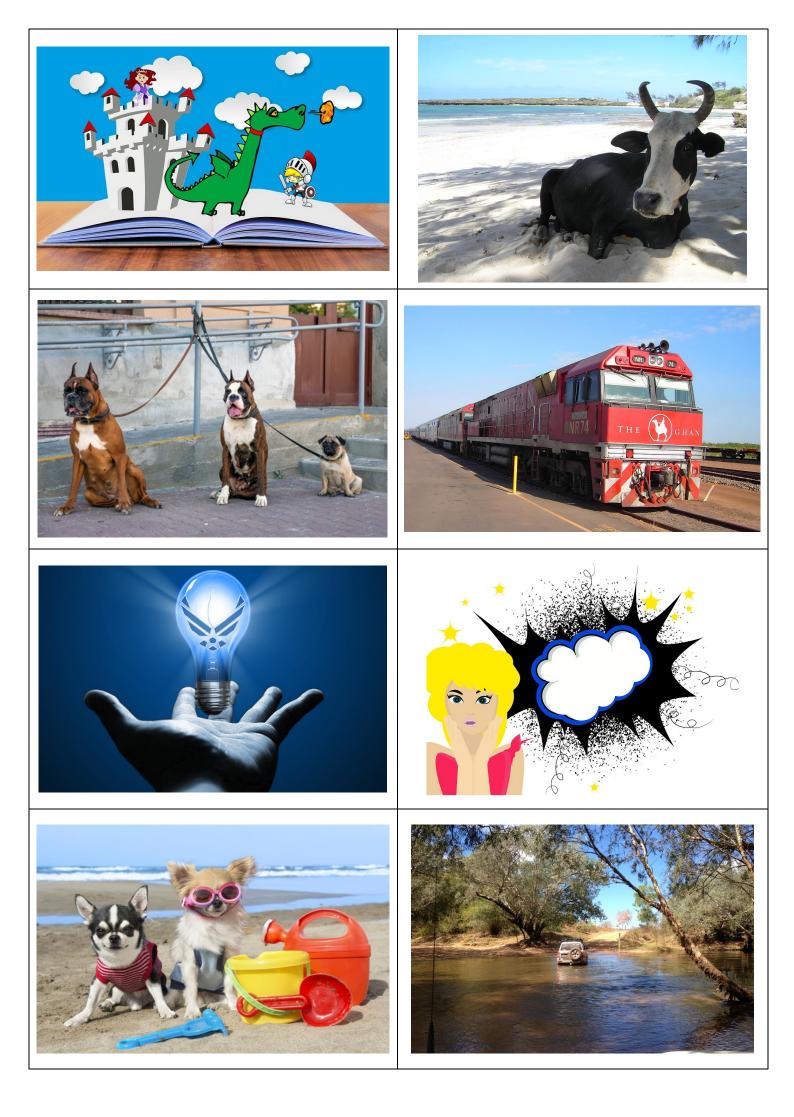
 Writing. Chose a word together and see how many interesting sentences you can come up with using it. Who can come up with the most, do they all make sense? You could write these on pieces of paper (see story chain) and make sentences or paragraphs with them. 	 Photo album or scrapbook With your child, make a photo album or scrapbook this can be with real photos, with images from magazines and newspapers or family drawings. Alternatively, you could use the visual prompts pages. Your child can then write captions or stories to go with the photos and pictures. Have fun with it. If possible, use different colours or types of pens/markers. If you have access to a computer, then your child could use it and take their own photos around the garden or of family members. 		 Family joke journal Family joke journals can be created by interviewing family members and writing down favourite jokes. This could be done via phone, FaceTime or messenger if your children want to access family members that do not live in the same household. Discuss which jokes were the favourite. Are there any similarities. Develop some rules or guidelines for creating a good joke, ie 'A Jones family joke' Your child can then write new joke, come up with their own ideas to add to the joke journal. Your child or as a family you could write and draw or add images to support the jokes, if you have a computer, they could publish them in a word document. This could also be done with poems.
 Visual prompts Give your child a comfortable space to write in. Let them choose one of the visual prompts or a photo or image they like from around the home. Spend 5 minutes talking about the image (either with another child or adult). When children talk before writing it helps generate ideas. They may like to plan out their writing before they write. They could write a story, information text or a persuasive text. Let them decide what style of writing they'd like to do. Give your child time and space to write about their prompt. (15 to 30 mins). Let them share and talk about what they have written to help generate more ideas and get some feedback (see responding to your children's writing). Give them space again to write about their prompt, writing more or developing/adding to what they have already written (15 to 30 mins). Again, let them share their writing. If your child wants to continue with it or publish it give them the opportunity to do so. Children can choose a prompt and write every day. Remember the more they talk and share, the more ideas and feedback they get to add detail 		 Movies and TV Shows Try selecting a show or a movie from a TV guide. Your child could write a letter or design a poster to persuade you to let them watch the show/movie. They need to think about reasons why and explain their point. Encourage them to use strong words that encourage you to believe and get persuaded by them. Children could use the show/movie to inspire their own story, changing it to make it their own or writing the next show or movie sequel. You could encourage your child to: Write a story Create a cartoon Write a play or Acting out a scene or show. Get them to talk about, draw and/or plan it out before they write or create it 	

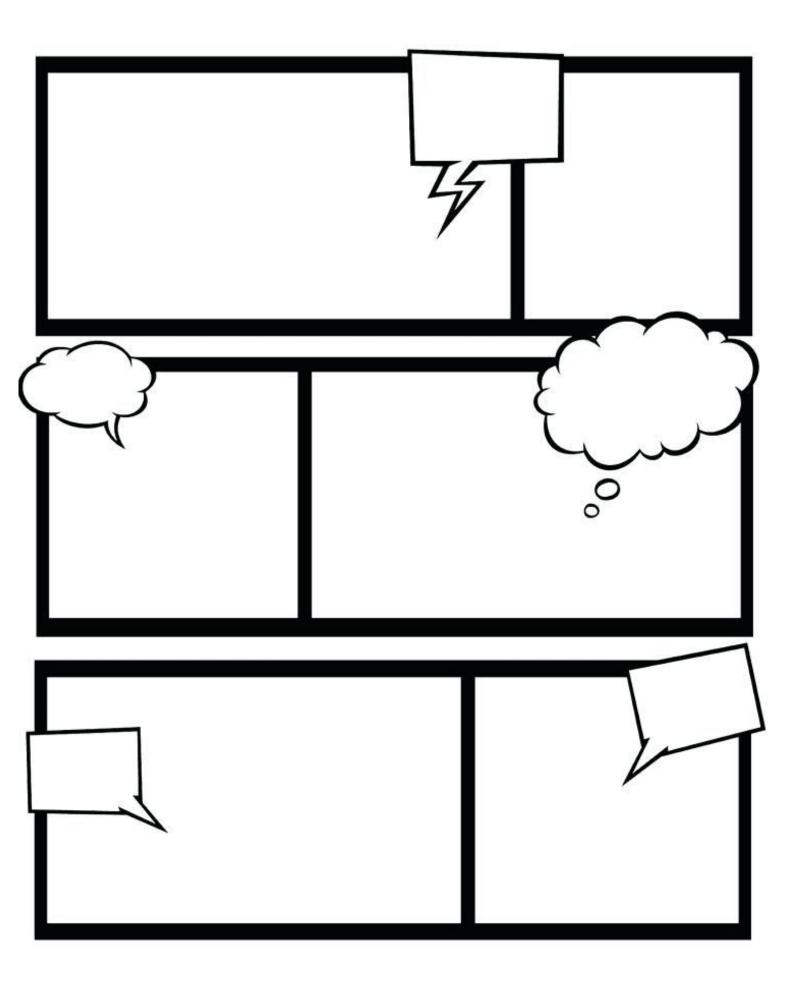
 Comic strips Comic strips give your child the chance to improve their dialogue writing skills, and to work on their understanding of character development, in a fun activity which combines writing with the use of a series of visuals. If you have comics or newspapers at home your child could look at and read them for ideas. You child might like some scrap paper to plan out their comic first. There are some blank comic strips that your child could use to write their own comic, or they may wish to do their own boxes. They can cut and paste photos or pictures to create a comic if they don't want to draw. Focus your child's attention on what the characters are saying or thinking in the comic. They can add more speech or think bubbles to the templates if they want. Get them to share their comic with other family members. Does it make sense? Is more information needed? Have fun with it. 	 Instructions This activity to about having fun with instruction writing. Look in recipe books or art books that you may have at home at how the instructions are written. They will include things like titles, numbered or bulleted points, action words (verbs) to tell you what to do, time connectives (first, then, next, last), photos or diagrams with labels etc. With your child brainstorm different 'silly sets' of instructions that you could write. For example: How to make the most disgusting sandwich in the world How to make the best hug How to make a friend How to make laughing powder Have your child choose one of the ideas and make up a set of 'silly' instructions with the ingredients, steps and diagrams or images. Have fun reading and sharing.
 Story chain This activity can be done together or individually. The idea is that you make a chain of writing. Your child could write a word on each piece of paper and join them together to make a sentence or a sentence on each piece to make a paragraph. Making a chain Make a chain by cutting or ripping paper into strips. Write on the strip before you join them. Take the two ends of the strip and glue, staple or sticky tap them together. With the next strip, thread it through the last one before joining the ends. 	 What if challenge This challenge helps encourage students to see links between posing of interesting hypothetical questions and the creation of an entertaining piece of writing. To begin this activity get you child or together as a family come up with 'what If questions' and write each one down on a different piece of paper. The more off-the-wall the better! For example, 'What if everyone in the world knew what you were thinking?' or 'What if your pet dog could talk?' Fold the questions up and put in a container so that you can do this activity again another day or week). Discuss the question that your child chose (discussing and hearing ideas will help them be able to write about it). Your child can then write a story inspired by the question and discussion or an answer to it. This could be open ended writing (as long as they want to write) or you could set a challenge and give them 10mins to write as much as they can about it.

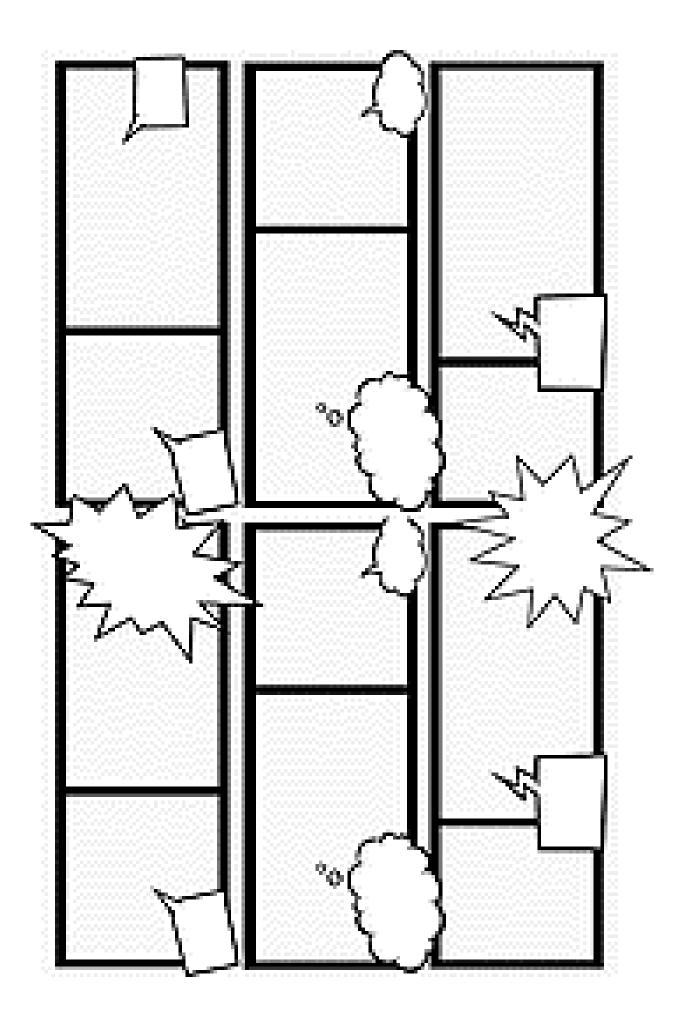
 Responding to your Child's Writing Read your child's writing or have them read the writing to you. Comment on the positive aspects. For example, "I really like the way you've described this." Focus on one thing to encourage them to develop Correct usage of full stops and capital letters Adding describing words or actions Correcting tense Adding detail Adding different or interesting sentences 	 Spelling All writing activities are related to spelling, help your child with those areas of spelling with which you feel confident. Remember that not all English words can be spelt correctly by "sounding out", e.g. the words "you" and "said". Try using different spelling strategies, such as sounding out the sounds of the word; breaking a word into parts (syllables) and spell each part; seeing if the word looks right. Talk about how you spell and what you do when you don't know how to spell a word. Provide a dictionary and use it together. Remember that dictionaries are more useful if your child has a knowledge of the alphabet and how a dictionary works. Talk about how you need to use the dictionary sometimes. Encourage your child to practise new words, say them, write them from memory and then check them. If your child can't find a strategy to help spell the word; simply tell them how it's spelt. Encourage your child to try to spell new words, then praise the parts that are correct, and suggest what else is needed. For example, if your child has written "litle" for "little" you might say, "You have five of the six letters right. One of the letters should be doubled. Can you tell which one it should be?" To help develop spelling and vocabulary you can play word games such as I Spy, Scrabble, Boggle, Scattergories and crosswords.
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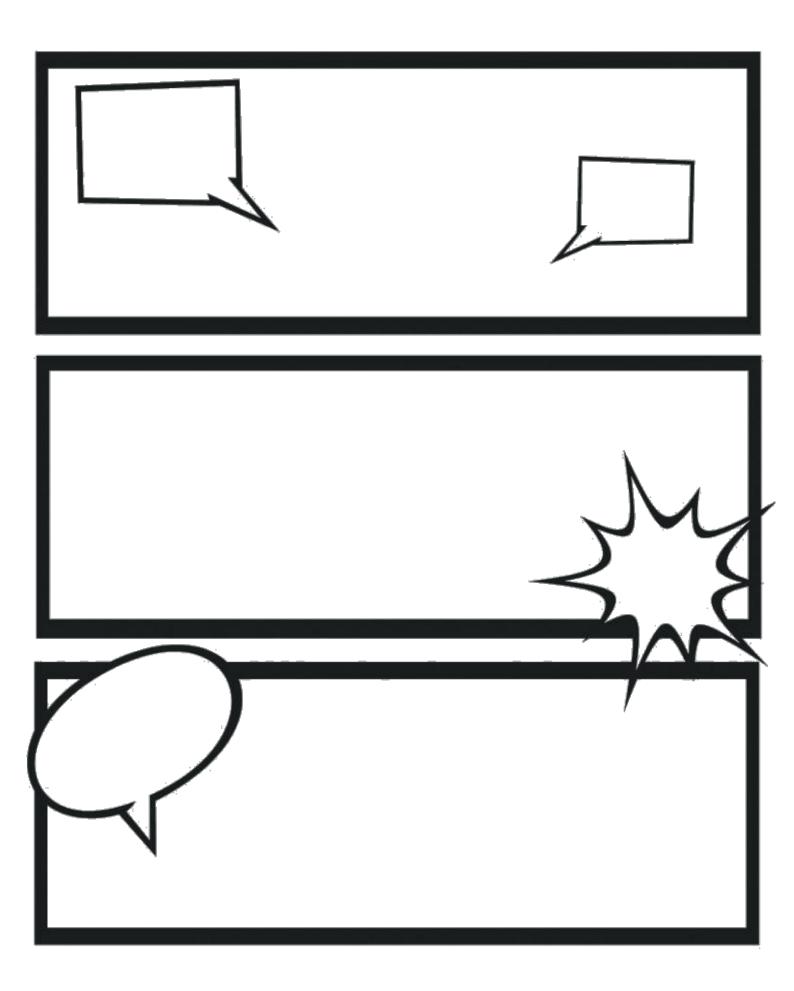


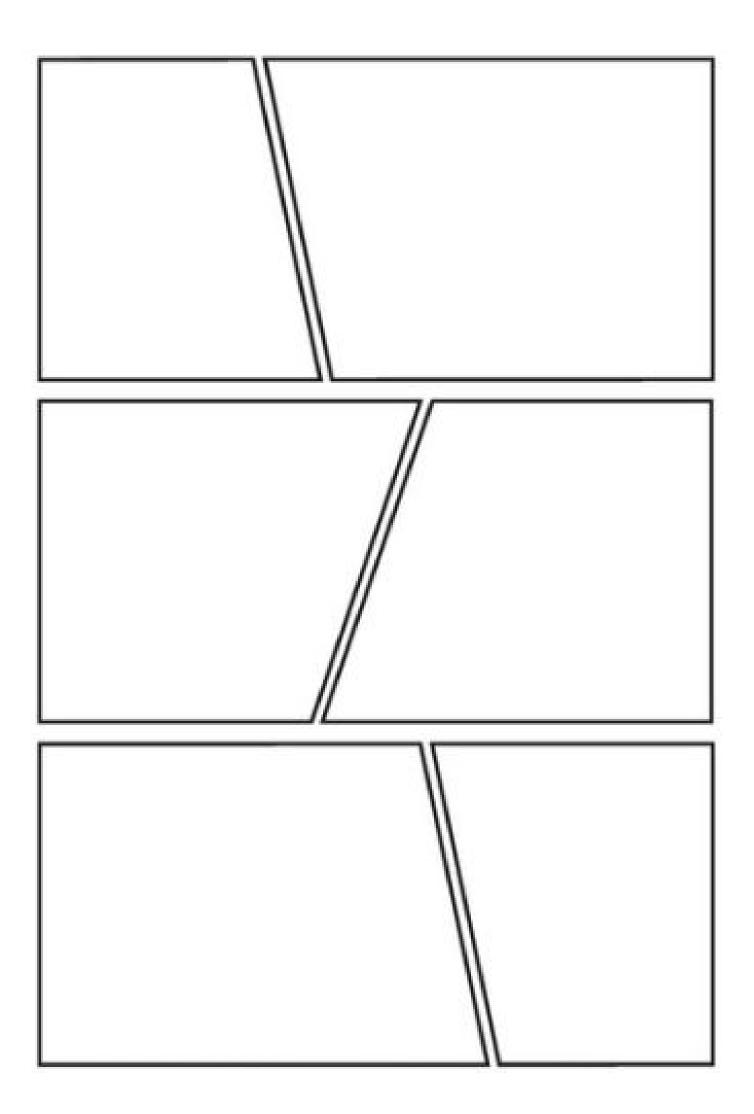




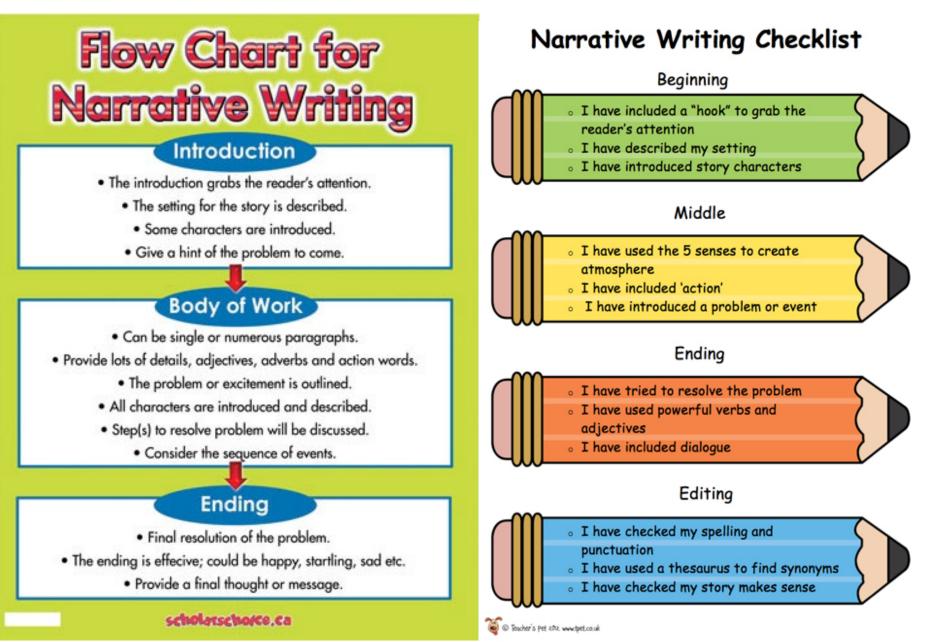








Writing Structures to support Your Child When Writing



When do I use it **?**

To tell what happened or to retell events

Orientation

Tell who, what, when, where and why.

Sequence of Events

Present the events in time order. You may want to comment on the events as you write them.

Conclusion

Give your opinion about what has happened in your recount.

Use:

Action Verbs

- walked
- saw
- laughed
- acknowledged
- **Past Tense**
- was
- went
- were

Quoted Speech

• The police officer yelled 'Stop!'

Reported Speech

 The police officer called to the thief to stop.

Conjunctions and Connectives

- when
- then
- first
- Noun Groups
- all the small dogs

R.I.C. Put

• my shoes





To present information about an object, animal, person or place

Classification

Wroduce your topic. Tot what the object or animal is, who the present is, or where the place is

Description

Use paragraphs with topic sectorces to organise the different bundles of information. Object-ears, shape and features, dynamics, where it is used or found Person-cheracteristics, where heater irres, what holishe does, achievements Animal- appearance, behaviour, habitat, breeding Place-size, facts, features

Conclusion

(Optional) You may want to make a personal convinent about the subject of the report.

Use:

Timeless

Present Tense

- Vultures circle their prey ...
- _is a popular holiday destination
- General Nouns
- e aki resort
- e rock musician
- mountain goot
- **Technical Terms**
- Dolphins are
 maximals __
- ... is an orthopaedic surgeon
- ... is situated on the San Andross fault Enc.

Relational

- Processes
- Jupiter is the largest planet in our solar system
- Unlike rabbits, the young taxes are born fully haired

WRITING ORGANIZER – Information Report

Introduction: Definition or classification of the subject.

May include a definition, classification or brief description.

Description: - Important facts about the subject.

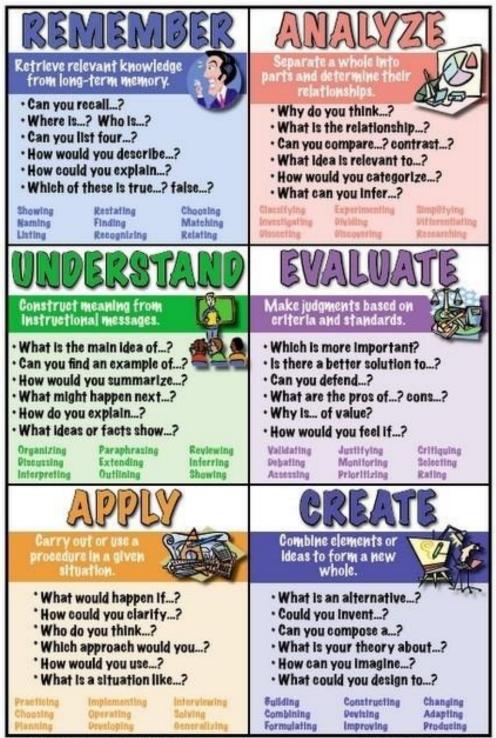
- Facts about the subject, set out in paragraphs.
- Subheadings are often used. For example:

Animal	Person	Object	Place
Appearance	Name, Age	Appearance	Location
Habitat	Appearance	Parts	Climate
Movement	Personality	Functions	Geography
Food	Occupation	Features	Population
Behaviour	Achievements	Uses	Culture
Lifecycle	History	Values	History

- May include photos, pictures, maps or diagrams

Conclusion: - Summary, question or comment (optional)

Ways to help develop your child's thinking and talking skills



Wake County Public School System Academically Gifted Peogram

Fearn Revised Bloom's Teconomy Resources

Structural features of poetry

Verses

Department of Education and Training C2C Independent Learning Materials

Divide the poem:

'Just a pup' by S Cat

As I slid along a rocky scree A snarling dog went snap at me I jumped in fright at this fearsome sight I thought for sure he was ready to bite.

- But his master laughed, 'He's just a pup He won't eat you up With teeth so sharp and snarly He's a friendly beast who likes to feast On sausages, liver and barley'.
- How could I be such a scaredy cat? I think I have a fever Ahhh... 'Tis just a flea upon my ear That's turning me into a diva!'



Verse 2

Verse 3

Line length

Poems can have long lines:

For his Hat was a hundred and two feet wide.

Or they can have short lines:

Mr Fox

Repetition

Words, lines, phrases or verses that are repeated during the poem.

For example, in 'The Quangle Wangle's hat' by Edward Lear, the words 'Quangle Wangle Quee' are repeated at the end of each verse.







Rhythm

Rhythm is the natural beat of the poem.

When you read a poem aloud, you hear the stressed and unstressed words and syllables.

Rain rain go a<u>way</u> Come again an<u>other day</u> All the <u>chil</u>dren <u>Want</u> to <u>play</u>



Rhythm can affect how fast or slow you read a poem.

Rhyme

The final sound of a word can be repeated and found at the end of the poem.

'Limericks' by Edward Lear

That imprudent Old Person of Chili.	А
Eating apples and pears,	В
He sat on the stairs,	В
Whose conduct was painful and silly,	А
There was an Old Person of Chili,	Α

Lear, Edward, 1846, 'There was a person of Chili'

Poetic language devices



Alliteration

These words have the same sound at the beginning.

For example:

ripe red raspberry

big bad bear



Puns

These are a clever and funny use of a word with more than one meaning, or a word that sounds like another word, so that you have two different meanings.

For example:

Maths teachers have lots of problems.

Onomatopoeia

These words imitate the sound of the word.

For example:

screech, bang, tweet

Spoonerisms

These are slips of the tongue when the first letters are swapped over. For example:

- well-boiled icicles instead of well-oiled bicycle
- shake a tower instead of take a shower
- a flutterby buttered fly instead of a butterfly fluttered by

Nonsense words

These are comical words made up by an author.

For example:

napsate or plizzle



Neologisms

These are made-up new words or expressions. You can use an existing word in a new way.

For example:

Deadly

You can combine and change two or more words

For example: fun + fantastic = funtastic





Poetry matching game



- 1. Cut out all sets of cards.
- 2. Shuffle the cards.
- 3. Place the cards face down on the table.
- 4. Turn over three cards, and try to match up the name of the poetic language device or structural feature with the meaning and an example. If you don't have a set of three, turn them back over and try again. Try to remember where the cards are after you turn them back over.
- 5. Place the set of three cards to the side once you have found them.
- 6. Keep going until you have matched all the sets of three cards.



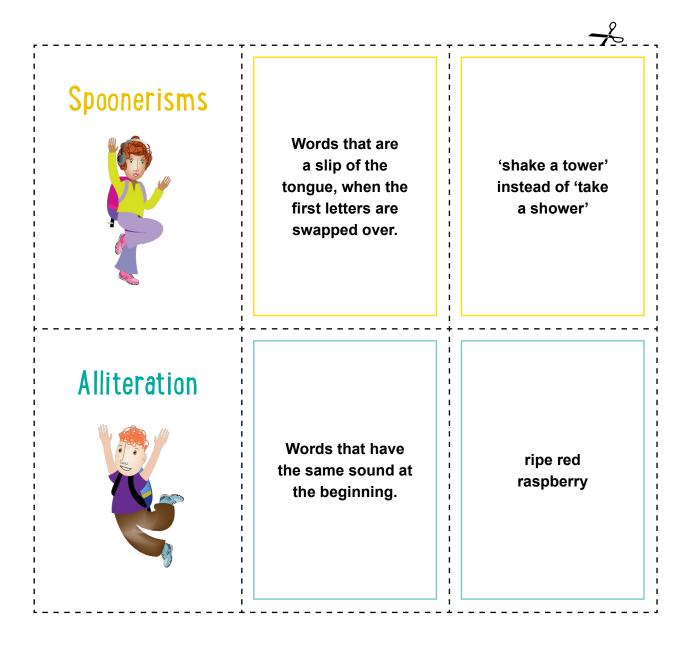














Playground rhymes

1. Re-read the poem 'Susie bought a motor car'.

Susie bought a motor car

Susie bought a motor car She swapped it for a camel She didn't like the colour So she painted it with enamel.



2. Innovate on the poem. Some words have been left in to get you started.

bought

swapped it for

didn't like

So







3. Read the poem 'A camel is a funny thing'.

A camel is a funny thing

A camel is a funny thing His back is round and humpy Mummy says he's tough like me On days when I am grumpy!

4. Innovate on the poem. Some words have been left in to get you started.



А

is a funny thing

His/her

says s/he's

like me

On days when I am

How was your student able to complete the activity?

Some assistance required A lot of assistance required Not able to do this task

Comments:

No assistance required



Compound word sort



three syllables two syllables himself herself yourself something playground background handwriting everything classroom newspaper breakfast lunchbox daylight downstairs fortnight



plural	s p	-& ast tense
mice	people	knives
loaves	thieves	videos
photos	shut	took
said	heard	felt
found	lost	told



Use of direct speech

Choose one of the following sentences:



Rewrite the interaction between the two characters and include direct speech.

Make sure that you add the following:

- quotation marks
- character names
- language features such as:
 - saying verbs
 - noun groups
 - thinking verbs
 - adverbs.

How was your student able to complete the activity?

No assistance required Some assistance required A lot of assistance required Not able to do this task Comments:

Numeracy

The Mathematics activities in this book support the Australian Curriculum and are targeted towards your child's year level.

How can I support my child?

Encourage them to repeat and practice their maths activities. Go through their work with them.

Think about ways that you can bring maths into real life experiences. This can be done by putting socks in pairs, setting tables, gardening, cooking and games. Count with your child, add things up, look at patterns. For example, look at the patterns in an artwork, count natural things such as shells, leaves or animals. Put different kinds of natural things into groups. Order objects by size. For example, collect rocks or bush tucker and put them into order from small to big.



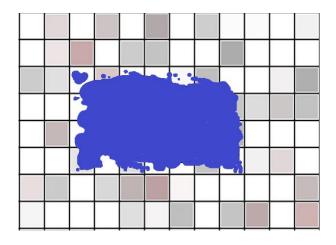
Make a clock that can measures 1 minute.

The clock in the picture is alright but there are ways to make a more accurate clock.



Calculate how many tiles are covered in paint

How many ways could you solve this problem? Can you find tiles or pavers and create your own problems?



What's Happening

Pick a number	X 2	X 4
5	10	20
6	12	24

Pick a number	X 5	÷2
10	50	5
4	20	2

Look for some patterns in your answers. Describe what is happening.

Multiplication Stories

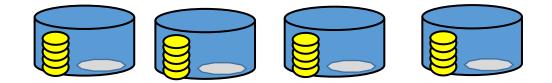
Tell a story with words and pictures

For example: Four friends bought the same drink and hamburger for \$5.50 each.

Together they spent \$22.00.



Tell the story with cups/tins and coins



Tell the story with numbers and symbols

4 X \$5.50 = \$22.00

Other Ideas

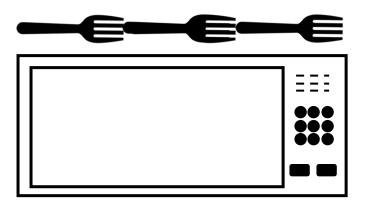
- Draw a new picture and change the price or the number of items
- Stories about collecting, eating, drinking, meeting, shopping, cooking, games, sports and play
- Use different objects such as boxes, bottles, lids, shells, stones, sticks, pencil drawings, fruit, vegetables, pegs, chairs, plates, tins

Comparing measurements

- 1. Find someone or something half your height.
- 2. Find someone or something **double** your height.



3. Find something **3 times as long as** a fork.



- 4. Make a collection of 5 objects then make another collection **double** the size.
- 5. Record the comparison with numbers and symbols

Other Ideas

- Use your arm, leg or finger instead of your height
- Use other objects to help make comparisons
- Find things twice as long, 4 times as long, 5 times as long



Fraction problems

Complete the following fraction word problems.

- a. Read each word problem carefully.
- b. Draw diagrams to help you solve the problem.
- c. Write in your answer.
- d. Check your work.
- 1. Iris read for $\frac{1}{4}$ of an hour on Monday, Tuesday and Wednesday, 1 hour on Thursday and $\frac{3}{4}$ of an hour on Friday. How long did she read for that week?

Answer: Iris read for hours.

2. Greg had a huge block of chocolate. Each day for 5 days he ate a row of the chocolate. Each row is $\frac{1}{8}$ of the whole block. After 5 days, how much of the chocolate block remained?

Answer: After 5 days,

of the chocolate block remained.

Queensland Government



3. Four children are making playdough models and want to share 14 balls of dough so that each child gets the same amount. How many balls of dough will each child get?

Answer: Each child will receive

balls of dough.

4. Dana, Jas, Sophie and Lauren win 3 chocolate bars. If the chocolate is shared equally among them, how much chocolate does each girl get?

Answer: Each girl will receive

bars of chocolate.





5. For every cupcake Maya baked, she used $\frac{1}{8}$ cup of icing to decorate it. If Maya baked a dozen (12) cupcakes, how much icing did she use in total?

Answer: Maya used of icing.

6. Sam has made 10 peanut butter sandwiches. How many people can Sam feed, if each person is given half a sandwich?

Answer: Sam can feed	people.	
How was your student able to complete the activity?		
No assistance required Some assistance	A lot of assistance	Not able to do this task
Comments:		



Time calculations

Part A: Calculating with analog and digital time

- Answer the following questions.
 (Hint: Use a timeline or an analog clock to help you to answer each question.)
 - a. Garry's party is starting at 5:30. How much longer does he have to wait? Explain.



b. The clock has lost its minute hand. What time do you think the clock is showing?



Answer:

c. You begin your school work at 9:00 am and finish at 1:00 pm. How many hours do you work?



Answer:

d. Write what the time will be half an hour after the time shown on each clock. Write in both word form (how you would say it) and digital form.









Part B: Calculating time durations

2. Carefully read the timetable then answer the following questions. (Hint: Include am or pm for each of the times.)

8:45–9:00	Morning session		a. What time does the school day start?
9:00–9.30	Spelling	6.R-e-1-1-1-1-1-3	b. What time does the school day finish?
9:30–10:30	Maths		c. How long is the school day?
10:30–11:00	First break	7 MA	d. How long is spent doing Maths?
11:00–11:30	Reading groups		e. Which comes first: English or Science?
11:30–12:00	Music lesson	5	f. What are the students likely to be doing at 1:15 pm?
12:00–1:00	English		g. How long is the first break?
1:00–2:00	Second break		h. Which lesson lasts the longest: Music or English? By how much?
2:00–3:00	Science		
How was your studen No assistance re	at able to complete the activi		t of assistance Not able to do this task

Comments:



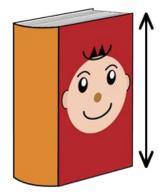
Estimate and measure lengths

 In this activity, you are going to be using both personal referents to estimate the length and a formal measuring tool (Centimetre and metre strip from the Starter kit) to find the actual measurement of two different lengths.

Find a small book in or around your schoolroom.

a. Estimate the height of the book.

Hint: Use a personal referent for centimetre to help you to estimate the height of the book.



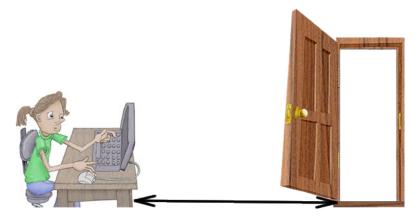
b. Measure the actual height of the book, using the **Centimetre and metre strip** (from the **Starter kit**).

c. Was your estimate more or less than the actual measurement? Explain.





Estimate the distance between your desk or table and the door of the room.
 Hint: Use a personal referent (metres) to help you to estimate.



- a. Measure the actual distance between your desk or table and the door of the room, using the **Centimetre and metre strip**.
- b. Was your estimate more or less than the actual measurement? Explain.

3. What is the problem with using parts of your body as measuring tools?

How was your student able to complete the activity?

No assistance required Some assistance Comments:

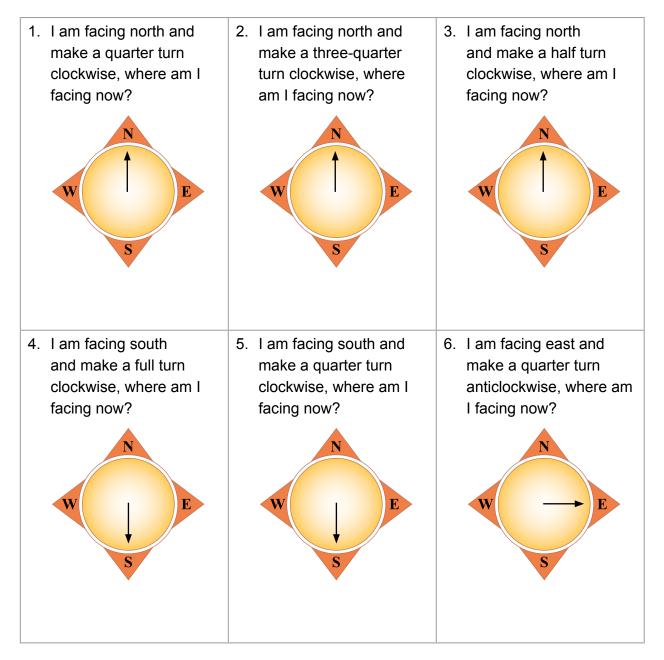
A lot of assistance

Not able to do this task

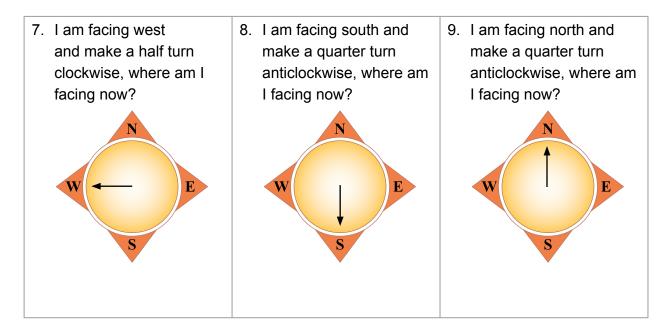


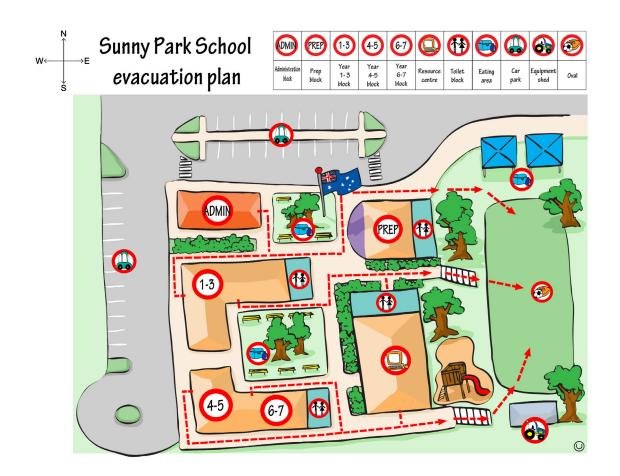
Compass directions

Use your knowledge of cardinal compass points to complete the table.













10. Use the compass points on the map of Sunny Park School to give directions:

• from the oval to the eating area with the Australian flag

· from the Admin block to the equipment shed

How was your student able to complete the activity?

No assistance required

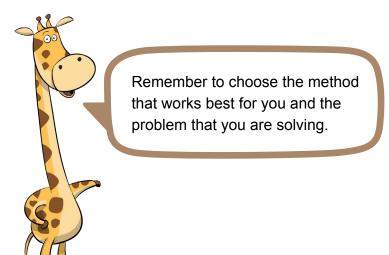
Some assistance required A lot of assistance required Not able to do this task

Comments:



Money well spent

- 1. Solve the following word problems involving money by:
 - estimating the answer using rounding
 - calculating the total costs and change using your knowledge of counting back and other computation strategies.



a. Problem:

Maisy had \$20.10 to buy fruit for the week. She bought apples for \$2.25, bananas for \$4.55 and grapes for \$2.30. How much change did Maisy receive?

Estimate:		
Total cost:		
Change:		



Problem: b.

Andy attended the cricket carnival in his district. There was a lot of equipment for sale that Andy couldn't resist. He bought a cap for \$19.45, a cricket bat for \$19.90 and a cricket ball for \$13.45. Andy had exactly \$62.90 to spend after saving his pocket money for the last couple of months. How much change did Andy get back?

Ectiv	nate:
ຮອເມ	nate.

Total cost:

Change:

How was your student able to complete the activity?

Some assistance required A lot of assistance required Not able to do this task

Comments:

No assistance required





Solving multiplication and division problems

- 1. Choose a computation strategy to solve the following multiplication problems. Show all of your working.
 - a. 86 × 4 =

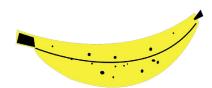
b. There were eight large canisters, each containing 445 toffees. How many toffees altogether?





- 2. Choose a computation strategy to solve the following division problems. Show all of your working.
 - a. 600 ÷ 20

b. The farmer packed 148 bananas evenly into four boxes. How many bananas in each box?



How was your student able to complete the activity?

No assistance required Comments:

Some assistance required A lot of assistance required Not able to do this task





Solve it!

Solve the following measurement word problems, showing all working out.

1. Jake had 560 mL of honey. His friend Jerry had 620 mL of honey. If they combined their amounts of honey how much did they have?



- 2. On Wednesday, Prya drank three 250 mL glasses of milk. Brooke drank four 200 mL glasses of milk.
 - Which girl drank the most?

• How much more did she drink?

3. How many 100 mL scoops of gelato are there in a 1 L container?





- 4. Farmer Bill bought a new water tank. After a week of rain it contained 125 L of rain water and was $\frac{1}{4}$ full.
 - How much will the tank hold when it is full? •



How much more rain is needed to fill the tank? •

How was your student able to complete the activity?

No assistance required

Some assistance required A lot of assistance required Not able to do this task

Comments:



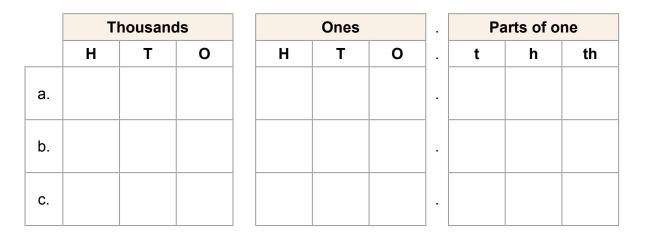


Dynamite decimals

1. Tick the numbers that are decimals.

5.6	<u>5</u> 6	0.9
567	<u>4</u> 5	56.78

- 2. Add the following numbers to the place value chart:
 - a. 5 thousands, 4 hundreds, 6 tens, 9 ones, 1 tenth
 - b. 36 tenths
 - c. ninety ones, five tenths



,

3. Complete the sequences and write the rule for each one:

,

,

,

a. 1.5, 2.5, 3.5,

Rule:

b. 1.0, 0.9, 0.8,

Rule:

c. 15.2, 15.4, 15.6,

Rule:



,



4. Use a fraction wall to help you match the decimals and fractions. Colour the matching decimal with the corresponding fraction colour.

$\frac{1}{2}$	0.8
<u>1</u> 5	0.1
$\frac{4}{5}$	0.5
<u>1</u> 10	0.2

- 5. Complete the following to make fractions and decimals equivalent.
 - a. $\frac{1}{2} = \frac{1}{10} = 0.5$
 - b. $\frac{1}{5} = \frac{2}{10} = 0.$
 - c. $\frac{1}{5} = \frac{4}{10} = 0.4$
 - d. $\frac{3}{5} = \frac{10}{10} = 0.$

How was your student able to complete the activity?

No assistance required Some assistance required A lot of assistance required Not able to do this task Comments:





Down on the farm

Part A

- 1. Use left to right regrouping to solve the following problems.
 - a. It was a wet weekend at the farm. 109 mL of rain fell on Saturday and 47 mL fell on Sunday. How much rain fell altogether on the weekend?

b. Farmer Matt planted 578 pineapples in the top paddock and 369 pineapples in the bottom paddock. How many pineapples did Farmer Matt plant altogether?





Part B

- 2. Use left to right regrouping to solve the following problems.
 - a. On a fine day we went fishing down at the creek. I walked 1850 m to my fishing spot but Pete walked 360 m less distance than me. How far did Pete walk to get to his fishing spot?

b. Over a year we collected 1645 eggs from our chickens. We used 490 for our own consumption and sold the rest to the local market. How many eggs did we sell to the local market?



How was your student able to complete the activity?

No assistance required Comments:

Some assistance required A lot of assistance required Not able to do this task





Giuseppe's Italian restaurant

Three Year 4 students went to Giuseppe's Italian restaurant to celebrate having a great year at school and doing really well in Maths. They selected items from the menu. Help them to organise costs for their lunch by using the menu below.

Giusepp	e's Itali	an restaurant	
Breads:		Desserts:	
Herb and garlic	\$6.50	Chocolate mud cake	\$9.00
Bruschetta	\$9.00	Vanilla ice-cream	\$5.00
		Sticky date pudding	\$9.75
Mains:		Drinks:	
Hawaiian pizza	\$17.50	Hot chocolate	\$3.50
Italian salad	\$12.00	Flat white	\$3.50
Spaghetti bolognaise	\$16.00	Lemon soft drink	\$3.50
Risotto pollo pumpkin	\$18.25	Orange juice	\$3.50

- 1. The three students shared some bruschetta for an entrée. How much would they each have to contribute to the cost of the bread?
- 2. The students ordered two lemon soft drinks and an orange juice to have with their meal. The drinks had to be paid for straight away. How much did they need to pay for the drinks?





3. Two of the students shared the Italian salad. How much would each person need to contribute to the cost of the salad?

- 4. Each student chose a different dessert. What was the most expensive dessert chosen?
- 5. Each student chose hot chocolate to finish their meal. Once again the drinks had to be paid for straight away. One student was feeling very generous and paid for the hot chocolates. She gave the waiter a \$20 note. What change did she receive?





6. If you visited Giuseppe's Italian restaurant, what would you choose? Write your choice in the table below and calculate your total bill.

My bill:	
Bread:	
Cold drink:	
Main:	
Dessert:	
Hot drink:	
Total:	

How was your student able to complete the activity?

No assistance required Some assistance required A lot of assistance required Not able to do this task

Comments:

Cupcake cooking



Adapt the cupcake recipe to make half as many cupcakes and twice as many cupcakes. For a challenge, work out how to triple the number of cupcakes.

Recipe
250 g butter
1 teaspoon vanilla extract
150 g sugar
2 eggs
$1\frac{1}{2}$ cups self-raising flour
$\frac{1}{2}$ cup milk



How much to make half as many How much to make twice as many cupcakes? cupcakes? butter butter teaspoon vanilla extract teaspoons vanilla extract sugar sugar egg eggs cup self-raising flour cups self-raising flour cup milk cup milk

Optional challenge

How much to make three times as many cupcakes?	
butter	eggs
teaspoons vanilla extract	cups self-raising flour
sugar	cups milk

The riddler

Solve the problems to solve the riddle: What lives in the corner but travels the world?



Number	Letter	Problem
1.	S	Daisy purchased three items on the internet. The items cost \$451, \$1000 and \$32. What was the total amount Daisy spent?
2.	A	Molly had 50 cards. She gave 29 to Bella. How many cards did Molly have left?
3.	E	Bruce played three games on a computer game. His score on the first game was 2461. His score on the second game was 432. His total for the three games was 5600. What was his score in the third game?
4.	Ρ	Lorraine had 252 DVDs. She gave $\frac{1}{2}$ of her DVDs to Andrew. How many DVDs did Lorraine give to Andrew?
5.	Μ	Andrew had 9 strawberries and Chris had 3 times as many. How many strawberries did Chris have?
6.	Т	Ananda had 6 pencils. Kate had twice as many pencils as Ananda. Natasha had the same number of pencils as Ananda and Kate together. Julie had half as many as Natasha. How many pencils did Julie have?
7.	0	Eamon saved \$8 each week for 6 weeks. He was given \$20 and spent \$5. How much money did Eamon have left?
8.	G	Rhonda planted 14 rows of watermelon seeds with 8 seeds in each row. How many seeds were planted altogether?

21	126	\$63	\$1483	9	21	112	2707	\$1483	9	21	27	126

Wellbeing

We want our children to grow up healthy happy and strong. This means having the chance to run free and explore the country around them. It can include traditional ways of preventing sickness and staying healthy. We encourage children to watch out for each other and keep each other safe, to eat healthy food and keep themselves clean.

The wellbeing activities in this book will help students to develop their social and emotional skills, understandings and capabilities. The topic in this book helps students to understand their personal strengths.

Why learn about personal strengths?

Character strengths are important for thinking, feeling, and behaving. Working on personal strengths helps a person and others around them.

Students learn about personal strengths so they can:

- Learn and practice using words about strengths and positive qualities. This helps them to recognise and understand strengths and positive qualities in themselves and others
- Discuss personal, social and ethical challenges. This supports them to deal positively with challenges in their own lives and in the lives of people around them.
- Promote their own wellbeing and positive behaviour.

These are the underlying principles of the strength-based approach:

- All children have strengths and abilities
- Children grow and develop from their strengths and abilities
- The problem is the problem—the child is not the problem
- When children and those around them appreciate and understand the child's strengths, then the child is better able to learn and develop.

These 5 lessons should take about 30 mins and should only be done once per week.



2020

Year Four

Module2: Personal Strengths Student Activity Book

Student: _____



NT Schools of the Air NT DEPARTMENT OF EDUCATION

 Getting Along
 Activity One

 Success Criteria

 I described what helps me to get along with others
 I described how I am responsible for helping everyone to get along

Date:

Equipment

Pencil Coloured pencils

Steps

Name:

Today you participated in games to explore what helps you to get along with others. The games focused on the skills and behaviours you need to:

- a. protect everyone's right to learn and their right to feel safe and respected b. be friendly, show respect and work hard
- 1. Think about five skills or behaviours you can use to take responsibility for your influence on the people around you.
- 2. Underline the key word in your statement.
- 3. Record your ideas on the chart below.
- 4. Use the suggestions in the scroll if you need ideas.
- 5. Choose one key word and create an acrostic poem to describe what it means.
- 6. Show and talk about your work with the people in your school room.

Skills and Behaviours that help us to get along

Listening ... Sharing ... Taking Turns ... Compromising Doing My Part ... Showing Appreciation ... Encouraging Others Making People Feel Needed ... Not Isolating or Excluding Anyone

	Skills and Behaviours that Help Us to Get Along									
E.g.	Showing	<u>appreciation</u>	to	people	for	what	they	do	and	share.
Ι.										
2.										
3.										
4.										
5.										

Acrostic Poem





Date:

My Acrostic Poem

What is your word? _____

Write your poem here.

Strength Detectives

Activity Two

Success Criteria



• I described personal strengths and how they influence me

Equipment

Pencil or pen for writing

Steps

Today you have learned how everyone has strengths that are unique to them. It makes you who you are. Do you know which strengths you have?

1. Write your top three strengths in the space below.

	My	Personal	Strengths
1.			
2.			
3.			



- 4. Read the descriptions of personal strengths in the table.
- 5. Choose the strength that matches the best and write it in the space provided. The first one is done for you as an example.
- 6. Choose one of your personal strengths and write three examples of when you have used this strength.
- 7. Share one of your top strength examples with the people in your school room.
- 8. Tell everyone what you learned from this activity.

Name:

Date:

Description	Strength
If I do things for others without expecting anything in return I am	Generous
If I decide to do something and continue to try even when it's challenging I am	
If I stay in control of strong feelings even when I feel like yelling, sulking or being mean I am	
If I think of things to help the group and make suggestions about what to do I am	
If I am doing what I know is right even when I am feeling scared or nervous I am	
If I share my belongings with others and let them join in my games or activities I am	
If I stick at things even when it is not easy or I don't feel like it I am	
If I let go of my anger when someone has upset me I am	
If I love to learn about new things I am	
If I tell the truth even when it is not easy for me I	
am	
If I make sure everyone gets a turn and plays by the rules I am	
If I love to laugh and enjoy making other people laugh I am	



Personal Strengths Year Four – Activity 2

Name: Date: Brave 🌢 Curious 🌢 Determined 🌢 Fair 🌢 Forgiving 🌢 Funny 🌢 Generous 🌢 Hard-working 🌢 Honest 🌢 Kind Leadership 🌢 Self-control 🌢 My personal strength is: Example # 1 Example # 2 Example # 3

Personal Strengths Year Four – Activity 2

Date:

Activity Three

Strengths at Work

Success Criteria

Year Four



- I identified my strengths
- I described my personal strengths and how they influence me

Equipment

Coloured pencils

Large piece of paper (optional)

Steps

Today you learned that your strengths influence what you do and how you think and behave. Your strengths are influencing every minute of every day.

- Choose the two personal strengths that you think you use every day. (Hint: if you're not sure, ask the people who are with you – they will know the strengths that help you to do your best and be your best.)
- 2. Write a paragraph in the space provided to explain how each of your strengths influence your actions in your everyday life.

Example

My strengths are being forgiving and showing leadership.

My strength at being forgiving influences me because when I have an argument with someone. I always want to make up – straight away. I like it when we both say sorry and we can move on.

Personal Strengths



Name:

Date:



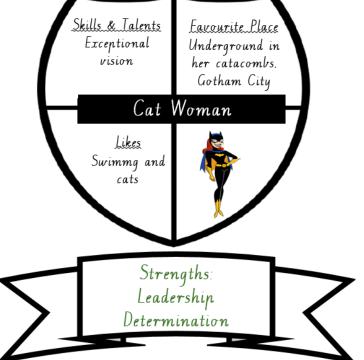
My leadership influences nearly everything I do. I always find myself organising things, I like to encourage other people to get involved in what we are doing and I make sure everything is running smoothly. I am good at making decisions.

Your Turn

Kind	
Leadership	
Self-control	

Name:

- 3. Read the Batman and Cat Woman strength shields.
- 4. Create your own shield on the page provided (or if you want to make a larger shield, use a large piece of blank paper and paste a photo of your finished shield into your activity book).
- 5. Share your work with everyone when you are finished.
- 6. Tell everyone how your strengths influence the skills, talents, favourite place and likes you included on your shield.

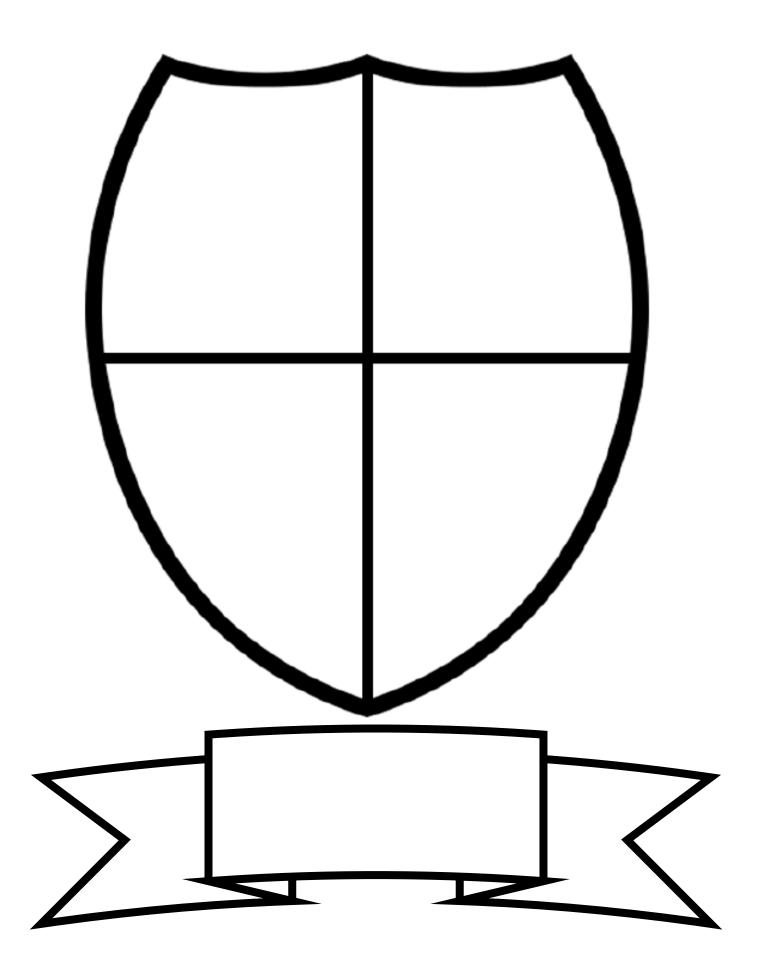






Date:

My Strengths Shield



Name:

Strengths in Action

Year Four

Success Criteria

Activity Four

- I described personal strengths and how they influence me
- I identified some skills and strengths I wish to develop

Equipment

Coloured pencils

Steps

- 1. Read the list of personal strengths (if you can't remember what some of them mean, check back through the previous activities).
- 2. Choose a strength to focus on over the next week. (Hint: choose a strength that you need to practise, rather than one you already do easily.)
- 3. Write the name of this strength in the template.
- 4. Draw a picture to demonstrate or write a few sentences to describe three actions you could take to show this strength in action.
- 5. Remember these are everyday strengths that are used in your daily life. The actions you describe should also be part of your daily life.
- 6. Share your work with everyone when you are finished.
- 7. Tell them which strength you are going to focus on and explain the actions you will be taking.

Personal Strengths

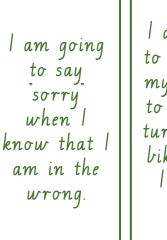


Name:

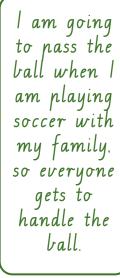
Date:

Example

Putting Strengths into Action

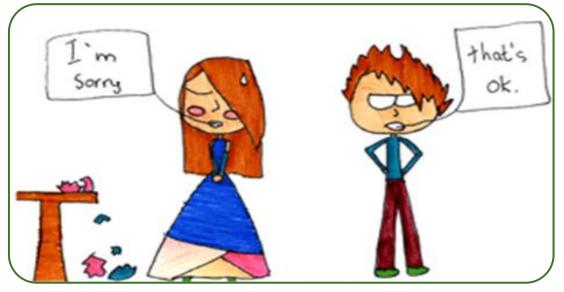


I am going to wait for my brother to have his turn on the bike before I have a turn.

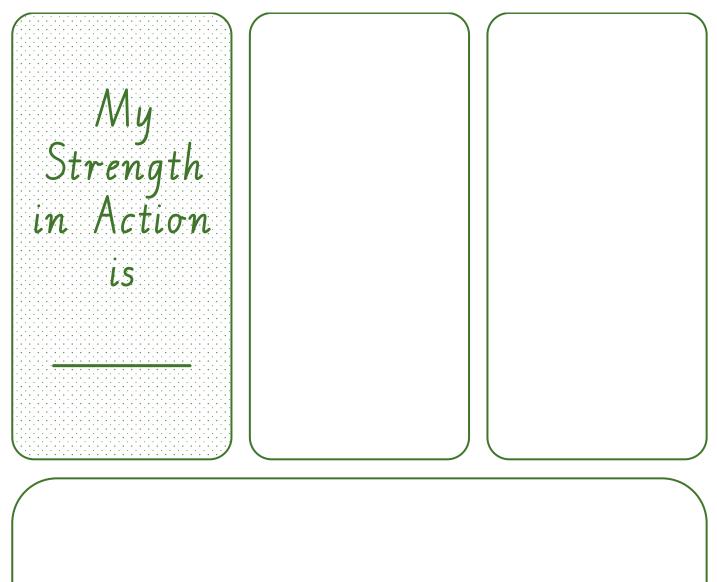


l am going to say "well done when someone outplays me in a game.





Strength in Action Template



Name:	Date	h
Self-Assessment	Activi	ty Five
Success Criteria		
Year Four I reflected on what I have le along and personal strength		getting
Equipment		
Coloured pencils / textas	Pencil	
 Read the <i>I Statements</i> in the checklist and put a tick in the co On the table below, think about what you have learned abou I Statements 		-
I described what I can do to get along with others so we can all be safe, feel respected and learn.	on my own	with help
I described my personal strengths.		
I gave examples of how I use my strengths in everyday life.		
I described some actions I can take to use my strengths.		
I identified a strength that I would like to develop.	1	



Name:

- 3. Do a 'Think, Share, Record' to help you form your responses to the questions:
 - a. think about what you want to say on your own
 - b. share your idea/s with someone else (e.g. home tutor, sibling, parent)
 - c. write your idea
- 4. Share your reflections with everyone.

What did 1 learn about personal strengths?	E.g. I learned that there are lots of strengths and when I use my strengths I feel happy.
What helped	E.g. The role plays helped me to think about how I use my
me to learn?	strengths when I am with other people.
What else do 1 want to know about personal strengths?	E.g. Why don't people use their strengths all of the time?

Art

This book has nine Visual Arts units for year 3-4 students to do at home. They are designed to be enjoyable and challenging. The activities draw from the Australian Curriculum Visual Arts standards and are targeted to your child's year level.

Some units link to other subject areas. For example, the Egyptian Canopic Jars link to History and Nature Art links to Science.

What materials do we need?

Most materials are readily available from Art and Craft supply stores or your newsagent. Possibly you will already have materials at home. Look around for things that you can re-use, such as fabric, boxes, plastic containers, foam trays or sponges.

We recommend that you set up an area where the student can return each day to continue the project. This might be in a study, under the house or on a spare fold up table in the living room.

How long do the units take?

The units are project based and are designed to take between 1 or 2 weeks from start to finish. The activities work best if students work in chunks of about 1 or 2 hours, but the time frame can be changed to suit your schedule. For example, students might break an activity into two blocks.

If a student is enjoying a project and wants to do more work on it this is ok. Many of the units have options to extend.



Home Learning Materials- Visual Art- 3-4

Dramatic Animal Painting Choose an image of an animal that appeals to you. Consider what quality or feeling you are trying to portray. Look at what Marc Chagall did in his painting, The lion and the rat, 1926.	Escher Style Reflective Drawings Look at Puddle, 1952 by Escher. What are some of the contrasts evident in this work? What perspectives can you see? Draw a reflection in a shiny surface.	Expressive Skies In this activity students explore ideas and artworks of Impressionist painters as inspiration for the creation of their own works of art. Create your background using soft pastels from your chosen colour range on a piece of white A4 paper.
Chalk Mural A chalk mural outside in the fresh air. 1. tape the fence 2. draw with chalk 3. remove the tape. kids can take turns rather than crowd around the fence & do silly walks and sing songs while they're waiting for their turn.	Magical Masks Students can design and create their own mask Think of a character or creature you would like to portray in a mask. Consider what special qualities your character might have. Are they very wise? Do they have supernatural powers?	Pop Art Portraits Sketch your self-portrait onto a piece of drawing paper. Which emotion will you show? How does the emotion relate to the parts of your personality you want to show? Choose colours and shapes which represent the parts of your personality you want to show and represent in your artwork.
Painting with Markers This technique can pair with almost any drawing assignment you or your students can dream up, Choose sections to color with any water-based marker. Then, using a brush and a small cup of water, they activate the marker pigment, causing it to run and blend similar to paint.	Egyptian Canopic Jars In this activity we will look at Canopic jars from Ancient Egypt. What were Canopic Jars used for? Students create their own Canopic jar design with drawing and collage.	Nature Art Inspired by Andy Goldsworthy Create a still life of at least three natural items found in your environment. Sketch your land art sculpture. Re-imagine the environment as a different season, climate, or planet. Sketch a portrait of your classmate and include the environment in your composition.

GREAT ART IDEAS FOR PRIMARY SCHOOL TEACHERS **DRAMATIC ANIMAL PAINTING**

YEAR 3-6

OVERVIEW

In this activity students make and respond to depictions of animals in art, drawing ideas from other artists, artworks, animal stories and animal symbolism. They explore techniques of composition and painting to create their own dramatic animal painting. Students develop their expressive skills by creating drama and evoking a feeling in their artmaking.

LEARNING OBJECTIVES

Students will:

- Interpret and discuss works from the NGV Collection which depict animals to inspire their own expression of ideas and use of materials and techniques.
- Practise composition skills by using cropping and focal points to create drama, and practise painting skills by mixing colour and using brushstrokes to create texture and movement.
- Identify and explain their own expressive choices, and the influences of other artists in their artmaking.

STUDENT EXAMPLES







Created by students at an NGV workshop

RELATED ARTWORKS



Jazmina Cininas

Never offend a werewolf 2001 No. 10 from the Lycanthropy survival hints series 1999–2001 colour linocut and letterpress 14.4 x 19.3 cm irreg. (image and sheet) ed. 1/45 National Gallery of Victoria, Melbourne Purchased, 2003 © Jazmina Cininas



Jazmina Cininas

Beware of sheep 2000 No. 4 from the Lycanthropy survival hints series 1999–2001 colour linocut and letterpress 14.4 x 19.3 cm irreg. (image and sheet) ed. 1/20 National Gallery of Victoria, Melbourne Purchased, 2003 © Jazmina Cininas



Marc Chagall The lion and the rat 1926 (Le Lion et le rat) gouache over traces of pencil 51.1 x 41.3 cm (sheet) National Gallery of Victoria, Melbourne Felton Bequest, 1953 © Marc Chagall/ADAGP, Paris. Licensed by Copyright Agency, Australia



Brett Whiteley Sacred baboon 1975 brush and ink, wood stain, watercolour, gouache and cut printed colour illustration on cardboard 81.6 x 67.6 cm (image and sheet) National Gallery of Victoria, Melbourne Purchased, 1978 © Wendy Whiteley

DISCUSS

Look at the related works of art and use the following discussion prompts to explore ideas with your class:

- Which feelings does each work show or elicit? What choices did the artist make to create those feelings?
 Consider the type of animal, use of colour, expression, the scale and focus of the image.
- How does our personal experience of animals change how we view the images? Consider your exposure to animals or stories where animals play a major part. What role do the animals play?
- Animals are sometimes used by artists to represent human qualities, this is called 'anthropomorphism'. Which human qualities or characteristics are suggested in the related works?
- Which angles or views did the artist use, for example a close-up or an aerial view? Why did they use this angle?

RESOURCES & MATERIALS

CREATE

A4 sketching paper

- Palettes or trays for mixing paint
- Black A3 cartridge paper (
- Acrylic paint
- Paint brushes
- Water pots

- Grey lead pencil
- Images of animals (preferably close-up)
- Viewfinders in various sizes
 (a square or rectangular window cut into a piece of paper)

Students design and create their artwork following these steps:

- 1. Choose an image of an animal that appeals to you. *Consider what quality or feeling you are trying to portray.*
- Place a viewfinder over the image and choose a section of the image to focus your painting on.
 Try zooming in on the eyes or face, or turning the viewfinder to create unusual angles for extra drama.
- 3. Sketch your composition onto black A3 paper with pencil. Only sketch the part of the image which is framed by your viewfinder.
- 4. Paint your animal. Start from the darkest colours and progress to the lightest. Use brushstrokes to show the direction and texture of the fur or feathers. Layer your brushstrokes to build up colour. You might like to introduce some brighter colours for dramatic effect, like Marc Chagall did in his painting The lion and the rat, 1926.
- 5. Allow your work to dry.
- 6. Mount your composition onto a larger piece of cover paper.

PRESENT & REFLECT

Students can share their portrait with a partner or the group, considering:

- Which animal did you choose and why? Which mood or feeling does your work create?
- How did you take inspiration from the works from the NGV Collection when creating your own work?
- What decisions did you make to make the composition more effective?

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EXHIBITION THEMES AND IDEAS



Escher produced numerous images that utilised reflective surfaces to reveal different perspectives. *Hand with reflecting sphere*, 1935, depicts a hand holding a polished sphere in which Escher himself is reflected, with his room behind him. The image is a portrait of Escher on a number of levels: the artist's hand represents his own dexterity and creativity, his reflected image shows his intensity and focus, and his living space reveals his personal domain – the world of the artist behind the image.

Puddle, 1952 depicts the reflections in a puddle on a muddy road. The footprints and tyre tracks of vehicles and bicycles in the dark mud indicate the hurried comings and goings of passing traffic, while reflected in the puddle, the full moon behind silhouetted trees shows the sublime stillness and clarity of nature.

DISCUSSION POINTS:

 Look at *Puddle*, 1952. What are some of the contrasts evident in this work? What perspectives can you see? What similes or metaphors can you think of for this work?

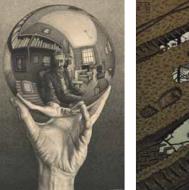
STUDENT TASK:

Collect some objects that have reflective surfaces

 spoons, tea pots, vessels with water, mirrors for
 example – and draw them as accurately as you can
 including the things reflected in them. You might like
 to start with a photograph and work from that.

M. O. Escher Hand with reflecting sphere (Gefportati in spherical mirror) January 1935 (Bhognaph Escher Collection, Gemeentemuseum Den Haag The Hague, the Netherlands © The M. C. Escher Company, the Netherlands. Al rights reserved

M. C. Escher Audlie February 1952 colour woodcul EscherCollection, Gemeentemuseum Den Haag, The Hague, the Netherlands © The M. C. Escher Company, the Netherlands. Al rights reserved





GREAT ART IDEAS FOR PRIMARY SCHOOL TEACHERS EXPRESSIVE SKIES: INSPIRED BY IMPRESSIONISM

YEAR 2-4

OVERVIEW

In this activity students explore ideas and artworks of Impressionist painters as inspiration for the creation of their own works of art. They analyse how artists manipulate and apply materials and techniques to convey meanings and ideas. Students experiment with a range of media and processes and apply these approaches to create their own expressive artwork that evokes a feeling.

LEARNING Objectives

Students will:

- Compare and contrast the aesthetic qualities of the sky in Impressionist works from the NGV Collection.
- Interpret meanings and ideas expressed in representations of the sky in different paintings.
- Develop and create an expressive painting of a sky using pastels on paper and paint on acetate.
- Identify and explain their expressive choices to a partner and explain what inspired their painting.





STUDENT EXAMPLES

RELATED ARTWORKS



Claude Monet Rough weather at Étretat (Gros Temps à Étretat)



Gustave Courbet The wave (La Vague)



Louis Buvelot Waterpool near Coleraine (sunset) 1869 oil on canvas 107.4 x 153 cm National Gallery of Victoria, Melbourne Purchased, 1870



Arthur Streeton Evening with bathers 1888 oil on canvas 40.8 x 76.4 cm National Gallery of Victoria, Melbourne Bequest of Sunday Reed, 1982

DISCUSS

Look at the related works of art with students and explain that abstract art does not represent recognisable places, people or things. In abstract art, artists use elements like line, texture, colour, shape and tone to create moods and effects.

- Describe the colours in each of the works are they bright or dull?
- Which shape families are used are they rounded, geometric, sharp, smooth, long, thin or angular? How are the shapes used are they layered, bunched together or spread out?
- Which mood do the shapes and colours create? Bright colours and round shapes might make the picture look lively, friendly and happy. Shapes bunched together might make the work feel busy.
- What do the works make you think about and why? For example, they might remind you of a patchwork blanket or a busy freeway.

RESOURCES & MATERIALS

White A4 paper

Brushes

Soft pastels

Palettes

• A4 acetate

Clear plastic tape

Acrylic paint

CREATE

Students create an artwork which depicts the sky through the following steps:

- Prior to artwork production, allow students time to experiment with soft pastels on paper and acrylic paint on acetate.
 Blend the pastel colours together to achieve various results and aesthetic qualities. See how the acrylic paint interacts with the pastel drawing underneath.
- Choose a mood or feeling to express in your depiction of the sky. Will your sky be bright and radiant, or dark and gloomy? Consider what colours and techniques will best convey your chosen mood or feeling. Use the related works of art as inspiration.
- Create your background using soft pastels from your chosen colour range on a piece of white A4 paper. Apply the rendering and blending techniques you practised during your experimentation.
- 4. Place your pastel drawing underneath the acetate. Consider what additional details you can add to your sky on this layer. For example, clouds, mist, suggestions of weather conditions, and light beams. These details should further enhance the mood or feeling in your expressive sky.
- 5. Apply the next layer of detail by adding acrylic paint to the acetate layer You don't need to paint over the whole sheet. In fact, it's best to allow the pastel to show through parts of the acetate.
- 6. Once your painting has dried, attach the painted acetate layer to your drawing with clear tape.

Students present their expressive sky with a partner or small group:

- Describe the expressive sky you painted as a metaphor.
- What might the conditions feel like to someone underneath your sky?
- How does your choice of colour enrich the meaning in your expressive sky?
- How do the techniques you applied enrich the meaning in your expressive sky?
- Share your favourite part of the process you followed to make the artwork.

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PRESENT &

REFLECT



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Chalk Mural

A chalk mural outside in the fresh air is a great idea when you have been inside for a long time. Chalk is a great way to do some street art which will be there for a few months but not forever. There are ways that you can seal your mural to make it last, if you love it a lot.

Materials:

Large chalks in as many colours as possible

Masking tape (Blue is the best)

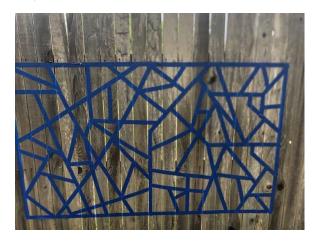
Pencils and paper for planning

Water based clear Sealant- (Buy from Bunnings)

Directions:

Step 1

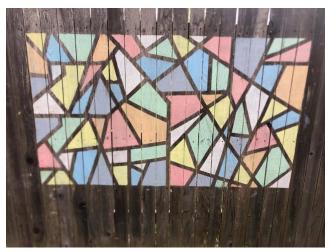
1. tape the fence 2. draw with chalk 3. remove the tape. kids can take turns rather than crowd around the fence & do silly walks and sing songs while they're waiting for their turn.



Step 2



Step 3



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GREAT ART IDEAS FOR PRIMARY SCHOOL TEACHERS TITLE OF LESSON: MAGICAL MASKS

YEAR 1–4

OVERVIEW

In this activity students will explore how ideas and beliefs are expressed in objects from other cultures and times. They will explore ways in which masks can be used to represent various characters and characteristics and create a decorative mask design to communicate their own ideas.

LEARNING Objectives

Students will:

- Compare masks from different historical and cultural contexts to see how ideas and techniques are similar or different.
- Use art and objects from different cultures as inspiration to plan and create their own mask designs.
- Share their ideas with their classmates about the expressive choices they made in their own work.

STUDENT EXAMPLE



Masks - made by Clifton Hill Primary School Year 2 students in an NGV workshop

RELATED Artworks



Tolai people, East New Britain Province, New Britain, Papua New Guinea Alor mask 1970s synthetic polymer paint on wood, feathers, fibre, plant roots, cane, polyester and cotton (a-b) 65.2 x 39.5 x 42.7 cm (overall) (variable) National Gallery of Victoria, Melbourne Presented through the NGV Foundation by Todd Barlin, Governor, 2005 © Tolai people



Toby Cedara

Op Nor Beizam (Tiger shark mask) 2017 pearl shell, bamboo, twine, goose feathers, raffia 84.5 x 67.4 x 27.7 cm (variable) National Gallery of Victoria, Melbourne Purchased with funds donated by Loris Orthwein, 2017 © Toby Cedar/Courtesy of Umbrella Studio



Deme Hidemitsu (attributed to) Noh mask, Ōbeshimi (17th century) (Nōmen Ōbeshimi 能面 大癋見) pigments, ground shell and animal glue on Cypress (Hinoki), silk (thread, cord) 22.0 x 15.5 x 11.0 cm National Gallery of Victoria, Melbourne Purchased with funds donated by Allan Myers AO and Maria Myers AO, 2011

DISCUSS

The masks shown are made by artists from Papua New Guinea, Australia and Japan. Each mask is designed to represent a special character or qualities.

- Artist Toby Cedar comes from the Torres Strait Islands. His mask Op Nor Beizam (Tiger shark mask), 2017, shows one of his totems, the tiger shark, which represents law and power. A totem is an animal assigned to a person, family or clan which each person has a duty to understand and protect. In the Torres Strait Islands, masks were traditionally worn while telling stories through songs, dancing and performance.
- The *Alor* mask, 1970s, made by the Tolai people of Papua New Guinea, is a stylised carved mask with a feather headdress. It was made to be worn by men during initiation ceremonies and cultural festivals. These masks are used to adorn special structural platforms and houses for special celebrations.
- The Noh mask, Ōbeshimi was made in Japan in the seventeenth century. Noh theatre is the oldest form of Japanese theatre and combines music, dance and acting. Ōbeshimi is used in plays featuring *tengu*, mythical demons or goblins which live deep in the mountains and have red faces, large noses, wings and supernatural powers.

Look at the related works and use the following discussion prompts to explore ideas with your class:

- When and why might the masks have been worn?
- What feeling does each mask evoke?
- What materials have been used in each one?
- What similarities and differences can you observe between the masks?

RESOURCES & MATERIALS

- Card or heavy craft paper
 - Crayons Glue
- Oil pastels
 Feathers
- Felt tipped pens
 Fur
- Flat wooden craft sticks (20 30cm) String
- Grey lead pencils
 Beads

CREATE

Students can design and create their own mask using the following steps:

 Think of a character or creature you would like to portray in a mask. Consider what special qualities your character might have.
 Are they very wise? Do they have supernatural powers, like the tengu? Super vision? Super hearing? Can they fly? Are they masters of disguise? Are they scary, or very funny? How might you show these powers? Think of features like big eyes, extra eyes, wings, flippers etc.

Scissors

- 2. Draw the design for your mask on craft paper. The mask should be big enough to cover your face.
- 3. Decorate your mask using coloured felt tip pens and pencils. Include designs and patterns that draw attention to your creature's facial features.
- 4. Add extra decoration using string, hair, fur or feathers.
- 5. Use tape to attach a stick to the back of your mask so you can hold it.
- 6. Give your creature a name.

PRESENT & REFLECT

Students share their mask with a partner or the group. If their mask is a dance mask, they might like to perform the dance.

- What is your creature called and what are his powers?
- What choices did you make about patterns, colours or other features?

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GREAT ART IDEAS FOR PRIMARY SCHOOL TEACHERS POP ART PORTRAITS: INSPIRED BY ANDY WARHOL SELF-PORTRAIT NO. 9

YEAR 1–4

OVERVIEW

In this activity students will develop their understanding of how and why artists express ideas and meaning through self-portraits and consider the role of the viewer when engaging with artworks and interpreting meaning. They will explore the aesthetic qualities of Andy Warhol's work and use collaging and drawing techniques to produce a self-portrait inspired by the conventions of Pop Art.

LEARNING OBJECTIVES

Students will:

- Define the term 'self-portrait' and discuss why artists produce self-portraits.
- Examine an example of Pop Art portraiture by Andy Warhol and present a range of interpretations of the subject matter based on their ideas, observations and imagination.
- Use visual conventions from Pop Art portraiture in their own mixed-media self-portrait.
- eflect on and share the creative processes and expressive choices they made when creating their artwork with a classmate.

STUDENT EXAMPLE



Made by a student during a workshop at the NGV

RELATED Artwork



Andy Warhol Self-portrait no. 9 1986 synthetic polymer paint and screenprint on canvas 203.5 x 203.7 cm National Gallery of Victoria, Melbourne Purchased through The Art Foundation of Victoria with the assistance of the National Gallery Women's Association, Governor, 1987 © Andy Warhol/ARS, New York. Licensed by Copyright Agency, Australia

DISCUSS

The name Andy Warhol has become synonymous with Pop art, a style of art that emerged in Britain and America in the mid 1950s and culminated in the 1960s. Pop art took its inspiration from popular culture. Warhol's iconic Pop Art works include images of consumer goods such as Campbell's soup cans and Coca-Cola bottles, and portraits of celebrities such as Marilyn Monroe based on media photographs.

Although Warhol was fascinated with celebrity, and became a celebrity himself, he remained a private and mysterious person. These contradictions are evident in his *Self-portrait no. 9*, 1986. This is one of a series of self-portraits the artist made in 1986 using a photograph of himself wearing a distinctive wig. The size of this work and the strong visual contrast between the face and the background clearly focus attention on the artist's face. However, the fluorescent camouflage pattern has a concealing effect. Disembodied from the dark background, the face appears mask-like and haunting.

Look at the related work and use the following discussion prompts to explore Andy Warhol's approach to self-portraiture:

- 1. Self-portraits
- What is a self-portrait?
- How does a self-portrait made by an artist differ from a photograph of a person? Why might an artist want to create a self-portrait?
- 2. Andy Warhol's Pop Art portraiture

Andy Warhol was inspired by consumer culture and mass production, and often produced multiple versions of the same artwork. For Andy, art itself was a product. He was not very concerned with depicting the subjects of his portraits realistically. Instead, he used bright, bold colour to produce portraits that captured the attention of viewers in the same way advertisements did.

- What do you notice about this self-portrait by Andy Warhol? Why do you think the artist chose to present himself in this way? Consider the way the artists hair is styled, his expression and the focus on his face with no body visible.
- Which colours and shapes can you see in the work? Why do you think the artist chose these colours and shapes for his self-portrait? *Consider the black background, camouflage patterning and fluorescent colours.*
- What kind of personality do you think Andy Warhol had? What makes you think this?
- Which colours and shapes would you use to create a self-portrait inspired by Andy Warhol?

RESOURCES & MATERIALS

- White A4 paper
- Coloured paper

• Graphite pencil

Permanent black markers

A4 acetate

Tape

- Scissors
 - Glue

Drawing paper

Black paper

CREATE

Students design and create their artwork through the following steps:

- Cut out various shapes from pieces of different coloured paper for the colourful background of your Pop Art portrait. Choose colours and shapes which represent the parts of your personality you want to show and represent in your artwork.
- 2. Arrange the shapes onto plain A4 paper.
- 3. When you are happy with your arrangement, glue the coloured shapes down and set your background aside.
- Sketch your self-portrait onto a piece of drawing paper. Which emotion will you show? How does the emotion relate to the parts of your personality you want to show? Consider the size of your drawing – your self-portrait should fit nicely over your collaged background.
- 5. When you are happy with your sketch, trace the outline of your drawing on A4 acetate with a permanent black marker.
- 6. Position the acetate over your coloured background and tape it in place.
- 7. Next, create a frame for your self-portrait:
 - Cut around the self-portrait sketch you did on drawing paper.
 - Place this in the middle of a sheet of black paper and draw around it
 - Carefully cut the shape of your face out of the middle of the black paper.
 This will be the frame for your artwork.
- 8. Tape the frame over the top of your self-portrait to finish your artwork.

Students show their self-portrait to a partner and explain:

- Which colours and shapes did you choose for your self-portrait and why did you choose them?
- Which part of the activity was the most enjoyable?
- Describe your self-portrait in one word.
- How did Andy Warhol's self-portrait inspire the creation of your own self-portrait?

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PRESENT &

REFLECT





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Painting with Markers

Magazine / How to Stretch Your Budget by Painting with Markers

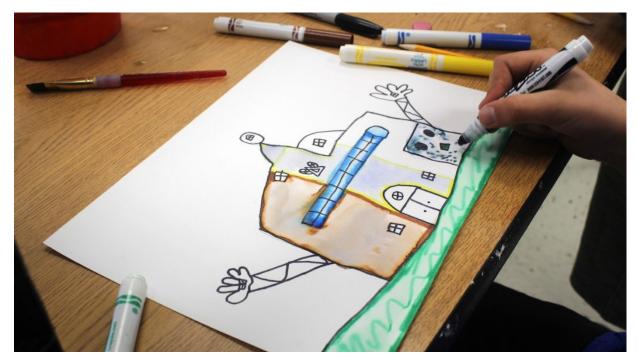
2 years ago Lindsey Moss

0 Comments

The end of the school year is rapidly approaching. If your art room is anything like mine, you are currently scraping the bottom of the barrel when it comes to supplies. Your budget is spent for the year, and you simply have to make do with what you have.

In my case, my clay is long gone, I've used a spatula on the last of the printing ink, and the watercolor pans are non-existent. Add in the "Summer is so soon!" excitement, and a supply shortage can derail your already distractible students.

Stretch your supplies with recycled marker painting!



How does it work?

This technique can pair with almost any drawing assignment you or your students can dream up, making it a perfect fit for a traditional or choice-based classroom.

Once the initial drawing is completed, students choose sections to color with any water-based marker. Then, using a brush and a small cup of water, they activate the marker pigment, causing it to run and blend similar to paint.

Students can choose to color the entire composition, or strategically color individual sections to create value, color mixing, patterning, or invent their own techniques.



Embedded Skills

While painting with markers is just plain fun, it also has lots of potential for reinforcing concepts you have been emphasizing throughout the school year.

Here are 3 key ideas you can review using the marker painting technique.

1. The difference between water-soluble and permanent pigments

Consider providing students with a mixture of permanent and water-soluble markers. Encourage them to experiment, and then discuss the similarities and differences. How could both types of markers be used to an artist's advantage on the same artwork?

2. How to create a value scale

Demonstrate how a value scale can be produced by varying the amounts of ink and water used. Challenge your students to develop as many different values as possible, using just a single marker, brush, and cup of water.

3. A review of color mixing

Help your students solidify their color mixing knowledge. Encourage them to use combinations of markers near one another. Then, mix the colors by lightly brushing water over the top of both. Be aware that sometimes marker pigments react differently than paint pigments. This fact can offer even more topics for discovery-based discussion.

3 Tips for Student Success

1. Consider using a variety of marker brands.

My classroom marker collection is the result of family donations, so my students are fortunate to have access to a variety of brands. While all water soluble marker brands work, my students developed opinions about which they prefer. Some students believed the pigments seem to separate or blend differently, depending on the type of marker. This could be great fodder for an inquiry-based STEAM lesson!

	CCATO A CANCEL
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washable - lav	cra-2-art

2. Recycle older markers.

Marker painting works best with free-flowing ink, but it can also be used to squeak a little extra life out of markers that are on their "last legs." If a marker is no longer coloring efficiently and is leaving a dry, spotty mark on the paper, it can still be used for this technique! As long as SOME pigment makes it onto the paper, SOME paint will be produced.

3. Work on one section at a time.

Remind your students this process has some similarities to working with traditional watercolors. If they do not want their pigments to mix, they should strategically work on opposite portions of the artwork. This gives adjacent areas the chance to dry.



Advancing Equity for our Students

As summer approaches, art teachers are acutely aware of the disparate art experiences their students will have over the coming months. Some fortunate students can attend enriching camps and are given high-quality supplies by highly-invested parents. And, sadly, many students are from a socioeconomic situation that doesn't make summer art experiences affordable.

This is another reason why I love teaching this technique during the last days of school; it provides an art opportunity for kids who might otherwise not have one.

Almost every kid in the building has access to worn out markers they are preparing to throw away as they clean out their desk for the fall. If you teach this technique, suddenly every student has access to "paint" over the summer, just by being resourceful.

As with so many aspects of teaching, your best ideas for this technique will come from your students. Demonstration of this simple idea will take only minutes. Then, you can watch students invent and create new ways to incorporate this into their artwork. In my classroom, a resourceful second grader commented, "Hey, we could make our own paint with water books for the kindergarten classes by outlining the picture and leaving it dry!" It sounds like our next steps for this technique will be collaborative!

What techniques do you have for using up supplies at the end of the school year?

How do you stretch your supply budget during the last months of school?



Lindsey Moss

N G V

GREAT ART IDEAS FOR PRIMARY SCHOOL TEACHERS DRAW LIKE AN EGYPTIAN: CANOPIC JARS

YEAR 4–6

OVERVIEW

In this activity you can introduce students to canopic jars from Ancient Egypt. They will develop their knowledge of how ideas, beliefs and cultural practices are expressed through art objects, and how these objects influence other times in history. Inspired by these works, students then develop decorative motifs which communicate a message about themselves.

LEARNING Objectives

Students will:

- Describe the characteristics and purpose of canopic jars and explore how objects and symbols express Ancient Egyptian culture and beliefs.
- Research the history and culture of Ancient Egypt and compare works from a different historical and cultural context to see how ideas and techniques change over time.
- Plan and create a canopic jar design using visual conventions from Ancient Egypt as inspiration.
- Share their ideas with their classmates about the expressive choices they made in their own work.

STUDENT EXAMPLES



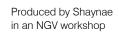
Produced by Robert in an NGV workshop



Produced by Jordan

in an NGV workshop







Produced by Theofanidis in an NGV workshop

RELATED Artworks



Egypt, (Qurna, Thebes)

Canopic jar with lid representing Duamutef Third Intermediate Period, Dynasties XXI–XXV 1069 BCE – 664 BCE limestone (a-b) $33.8 \times 13.2 \times 15.1$ cm (overall) National Gallery of Victoria, Melbourne Presented by James E. Sherrard Esq., 1881



Wedgwood, Stoke-on-Trent, Staffordshire (manufacturer) *Canopic vase* c. 1810 stoneware (green jasper) (a-b) 26.1 × 13.3 cm diameter (overall) National Gallery of Victoria, Melbourne Presented through The Art Foundation of Victoria by Mrs Norma Deutsher, Fellow, 1993



Egypt, (Thebes) Lid from the inner anthropoid coffin of Iret-[en]-Hor-eru 747 BCE – 600 BCE wood, linen, gesso, pigment 21.5 × 42.5 × 70.5 cm National Gallery of Victoria, Melbourne Purchased, 1938

DISCUSS

Ancient Egyptians preserved the human body after death using a process called mummification. Major organs were removed and placed in special vessels called canopic jars, which were kept inside the tomb. The jars were traditionally decorated with the four sons of the god Horus: Qebehsenuef (hawk head), Hapy (baboon head), Duamutef (jackal head), and Imsety (human head). They guarded the intestines, lungs, stomach and liver respectively.

The heart was left inside the body to be weighed in the afterlife to determine if the person had led a good life. The brain was thrown away as it was not considered as important as other organs. The mummified body was then placed in a series of coffins, for example the *Lid from the inner anthropoid coffin of Iret-[en]-Hor-eru*, 747–600 BCE. This coffin lid is decorated with text asking the god Osiris for sustenance in the afterlife and figures of the gods to protect the owner in the next world.

From the late eighteenth century, Egyptian art became popular in Europe. Europeans took inspiration from Egyptian canopic jars and created works such as the Wedgwood *Canopic vase*, c. 1810, which was made in England as a decorative object.

Introduce your students to the related works of art and use the following discussion prompts to explore Egyptian ideas and beliefs:

- What do you know about Egyptian beliefs, burial practices and symbols? Research Ancient Egypt and discuss what you learn.
- Look at the Egyptian canopic jar and find some more examples online. What might these objects be for? What do they tell us about ancient Egyptian beliefs and practices?
- Look closely at the images on the coffin lid. Which animals or figures can you identify? Why do you think Egyptians included these decorations? *Notice the bands of decoration that include hieroglyphics and images.*
- How does the Wedgwood canopic vase from differ from the ancient Egyptian jars? Speculate about where it may have been made and what it would be used for *Consider materials, techniques, colours and symbols.*

RESOURCES & MATERIALS

A3 cover paper – grey or buff

A4 cartridge paper

- Crayons earth tones
- Grey lead pencils
- Canopic jar templates Scissors (draw the outline of a canopic jar onto A3 paper)
 - Glue

CREATE

Students create their own canopic jar design using the following steps:

- Draw the head you have chosen on a sheet of A4 cartridge paper. Make sure the 1. neck is the same width as the neck of the canopic jar in the template.
- 2. Decorate the body of the canopic jar on the template with bands of decoration inspired by the related works of art. Incorporate bold pattern, areas of colour and symbols that have personal significance.
- 3. Cut around the head carefully and glue it into place on the canopic jar template.
- 4. Colour in your canopic jar using crayons. Use colour, pattern and tone to make sure the head and body of the jar are unified, working together as a single piece.
- 5. Cut around the entire canopic jar design and glue it onto a coloured background of cover paper.

PRESENT & REFLECT

Students share their portrait with a partner:

- Which animal or creature did you choose and why? •
- What symbols did you use for decoration and why?

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How to Inspire Your Students with Artist Andy Goldsworthy

Magazine / How to Inspire Your Students with Artist Andy Goldsworthy

10 months ago Jordan DeWilde

Now that spring has finally sprung, consider taking your students outside to create new and exciting works of art. Switch up your routine, and get students collaborating in the great outdoors!

Simply follow the steps below to get started.



1. Reinforce the elements and principles with natural materials.

British artist, Andy Goldsworthy, is an excellent example of an artist who is not only inspired by nature but creates art using natural materials. His land art sculptures are intentionally temporary and left in their environment.

Begin by sharing images and <u>video</u>clips of Goldsworthy's work. Ask students to identify how the artist created lines and shapes using natural materials. Point out different examples of radial, symmetrical, and asymmetrical balance. Have students explain how the artist used contrasting colors or values to lead the eye around the artwork.

Explain Goldsworthy's process of leaving the finished work in nature. He knows his work is only temporary, later to be destroyed in its natural environment. Ask students how they feel about this quality of his work. Does the photograph become a work of art as a result? Have your students discuss this aesthetic question before creating temporary land art of their own.



2. Encourage students to collaborate to create their own land art.

Divide your students into small groups for this activity. They will act as collectors, sculptors, and photographers throughout the process. Students will need to gather materials from their environment to help demonstrate balance, contrast, line, shape, etc. They will work together to build their land art sculpture.

If you're not in an area with a variety of natural materials, consider collecting items beforehand. Take a relaxing hike and pick up potential materials for your students. Pine cones, sticks, rocks, leaves, etc. would all be useful for this project.

Once the work is complete, students may take turns photographing their creation. Provide groups with digital cameras, phones, tablets, etc. to use. If your technology options are limited, you could allow groups to use a single camera or phone under your supervision. This would be a good opportunity to discuss composition, camera angles, and light source. Ask students to think about how to best represent their sculpture in a single image.



3. Be prepared for early finishers.

You may find some groups finish this activity rather quickly, while others take a lot of time and consideration in terms of how they place their materials. For early finishers, give students a variety of creative options. Students may create another land art sculpture, work independently, or help another group complete their work. These students may find inspiration from other groups by seeing different uses of materials or construction methods.

You could also have a few sketchbooks handy for students to take advantage of their time outside to draw from nature.

Have a list of drawing prompts like:

- 1. Create a still life of at least three natural items found in your environment.
- 2. Sketch your land art sculpture.
- 3. Draw a landscape of the environment around you.
- 4. Re-imagine the environment as a different season, climate, or planet.
- 5. Sketch a portrait of your classmate and include the environment in your composition.



4. Allow your students to reflect on their experience in nature.

Once each group has completed their land art sculptures and photographed the work, ask them to reflect on their experience. How was using natural materials different from using traditional art supplies? Was the construction of the land art more or less important to them than the photograph?

Ask students to select their best photograph or one for each person in the group. Prepare to have these images printed for their next art class. Then, continue the class discussion on Goldsworthy, temporary art, and photography. Ask students to title their work and write an artist statement.

Final Thoughts

The printed images and student responses can make for a great art installation in your school! The activity helps students apply their understanding of the elements and principles in a new and interesting way.

Spring can be a stressful time of year, as students are anxious to be outside after the long winter. By providing an opportunity to get outside, you let them release some of that pent up energy, while still directing it toward a creative art process!

Enjoy the fresh air with your students and watch as they work together to create and photograph land art inspired by the great Andy Goldsworthy!

How do you engage students with art and nature?

Do you have any other outdoor activities to share?



Jordan DeWilde

Contributor

Jordan DeWilde currently teaches high school art in Oregon, Illinois. He strives to develop lessons with positive representations of diverse artists and issues. His mission is to encourage students' individual creativity through an inclusive curriculum.

Humanities and Social Sciences (HASS)

What is HASS?

HASS stands for Humanities and Social Sciences. This learning area includes subjects like history, geography and civics and citizenship. It is a good learning area to discuss with your child because it links to the people, places and governments that shape our lives.

There are 10 HASS activities in this book. Each one has:

- Title to give you an idea of what it might be about.
- Conversation starter some questions to guide you when you start.
- Activities you can choose from and/or change.
- Definitions that explain important concepts.

Students can do the activities in many different ways. Mix and match them to suit your child's interests or needs.

How do I support my child?

Read through the Conversation Starter questions with your child. It will help them if you talk about the activity before they get started, to help them think about the question. Help them to choose which activities they want to do.

Then children can work independently.

Get together with them again once they have worked through the activity so that they can discuss their thinking with you.

What resources do we need?

The activities are designed to be completed without textbooks or the internet. Of course, if you have other resources they will add to the experience for your child. The internet is a wonderful resource, as are books - pull out your atlas, maps and any reference books that you have at home.

People are a wonderful resource as well, especially older family members who have experienced a rich life and have lived through major events.



Humanities and Social Sciences Year 4

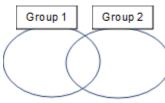
1. Events and Memories

What do you need? Find some family photos or use your memory and think about these questions:

- How does your family remember important memories and events? (e.g. birthdays, anniversaries, holidays, celebrations)
- How does your community remember important memories and events (e.g holidays, anniversaries, Glenti, Easter, NAIDOC Week, Territory Day, Ramadan)
 - What is the same about family and community celebrations?
 - Talk and share with someone or choose one of your events to draw and write about.
 - You could **interview** someone or **research** to find out more about why the event is special.
- 2. Where do I belong?
- What does 'belong' mean?
- **Draw** a picture of your family or a group you belong to.
- Discuss which other groups you belong to:
 - Who are you friends with?
 - Who makes up your family?
 - What sports or other groups are you in? eg school, band, sports team, language, church
- Describe one group you belong to: what do they look like, what do they do, why are you in this group, is this group important and why? (Children can **talk**, **write** or **draw**)
- How do you or others know who is in your group? eg uniforms, chants, flags, meeting place
- What is a tradition? eg having special food on your birthday
- What are some of the things that you/your family or groups have as traditions?
- What are some of the things your group does together? Are there things you do every time you meet/come together? eg sing special songs, wear special clothes
- What is the same or different about some of the groups you are in?
- Draw a T chart and write what is the same/different using a T chart

Similarities Differences

- or **draw** a Venn diagram with 'what is the same' in the overlapping sections and 'what is different' in the outside sections



3. Waste

What do you need? Empty a rubbish bin carefully onto a big plastic bag outside.

- What is waste?
- What groups could you sort your rubbish into?
- What are the main types of waste in your home?
- Is there good waste and bad waste? Why?

Draw or write a list of the waste you have, **and** what you found out about the waste in your home. If you have a camera take some photos.

- Describe the journey one piece of waste has taken before ending up in the bin.
- What happens to the kitchen waste? Are there other places in the home where waste comes from?
- Does my household recycle, reduce, reuse and compost the waste? What other ways do we use to get rid of the waste?
- What is one small change I can make or my family can make to reduce waste?

(**Make a plan** to reduce, reuse or recycle different waste from your home. Start small. This could be a plan for a making a compost bin, setting up a worm farm, getting a container to collect aluminium cans...)

4. Exploring my place

• What does the inside or outside my home look like? How many rooms? How many levels does my home have?

(**Draw** an inside or outside sketch map of where you live. **Label** your favourite areas on your map or plan. **Tell someone** why they are your favourite places.)

- Write some directions for a visitor on how to get to your home.
- Explain to the visitor how to get from one place in the house to another, eg from the kitchen to the bedroom. Try out your directions on someone, who has their eyes covered.
- Did the directions work? If not, make changes. If so, make a new set of directions.

5. My Ideal Island

What do you need? Find a picture of a map with islands on it or imagine your own.

- What is an island?
- What would your ideal island look like? What activities would you be able to do there? What would make it a great place to go?

(**Make a list** of your favourite things to do, eg fishing, bushwalking, shopping, astronomy, movies, skatepark. **Draw** a map of your island on paper. **Think about** the shape and size. Put your favourite places on your map.)

• What is so good about your island?

(Write an advertisement to persuade someone to visit your ideal island.)

6. Territory Traveller

What do you need? Find a tourist brochure or advertisement for somewhere in the Territory. Your imagination. Parent description.

• Have you been on a recent trip in the Territory or somewhere in Australia? Has someone you know been on a trip and shared their stories?

(**Talk about** where you or they have been and **share some stories** about what you or they did and what happened.)

- What did you like the most and least about the trip? What was a memorable moment or funny story from this trip? **OR**
- If you could go on a trip to anywhere in the Territory, where would you go and what would you like to experience? eg catch a big fish, have a sunset picnic, skate on ice

(Write a story or create a cartoon with words about a memorable moment/funny story.

{E.g. 1 - The time we went camping at Daly River and we thought we had put out the camp fire. All of a sudden when we were fast asleep it came back to life and all we could see through the tent was a huge yellow/orange glow. What a heart starter that was. E.g. 2 – The time my friend went to the boat ramp, backed the boat down and remembered he forgot to put the bungs in! Never seen him run so fast.}

• Do you remember all the places you have been to in the Territory?

(**Draw** a map of the Territory, showing where you have been. Give your map a title. **Write** a memory/or tell someone what they could do there at each place you have been. Or **Design** a travel brochure/poster showing why this is a great place to visit.)

7. Commemoration

- What does commemoration mean?
- Why do we commemorate as a community, school or family?
- How do we (community, family, you) commemorate significant events such as the Bombing of Darwin Day, Anzac Day and Remembrance Day? (or other events from history that your family believe are significant) eg sometimes we have a public holiday.

(Write down some ways we commemorate, eg we wear poppies, rosemary sprigs, wattle flowers, stand silent for a minute, fly flags)

• How do you and your family commemorate a special day or person from history?

(**Design** and **draw** a symbol for a commemoration, eg a poppy **OR Plan** a ceremony of commemoration for you and your family.)

8. Flags and Emblems

What do you need? Find some pictures of flags and/or look at the Australian emblem on a 50c coin or other coin. Your memory or parent description.

Conversation starters: Why are flags/emblems important? What message do they give you about the people who have them? Where have you seen different flags/emblems? (Sometimes emblems are on flags).

(Write down where you saw the flags/emblems, eg footy team emblems on the shirts, Tell someone what they looked like, eg colours, shapes, designs, size.)

• What would be the best design for a community or your own flag/emblem? What colours or images would you use? Why?

(**Design** and **draw** a flag or emblem. Pick if it will be for the community/home/yours. **Tell someone** the important things about your flag/emblem.

9 Trivial Pursuit

What do you need? Find a Trivial Pursuit game and look at some questions or you design a new game.

- Conversation starter: What do you remember about places you have been?
- What are facts?

(Write down as many facts/answers about places. Write a question for each fact. You can **make** little question and answer cards. e.g. 1. **Fact** - Katherine River, **Question**: Which river runs through Katherine Gorge?; 2. Fact – Uluru, Question: What is the name of the biggest rock in Australia?)

- Can someone else help you with facts/questions? Think about how many is enough.
- Find out how to play Trivial Pursuit.
- You could also write the name of the fact on paper. Place above the head. Then you use questions/guesses to find out what it is. Just like celebrity head.

(Time to play trivial pursuit with the family.)

10. Memory Game

• **Conversation starter:** What places have you visited and what are their names? Do you know something about them?

(**Preparing to play** - **Write** down names of places, twice, on small squares of paper, so you have two pieces of paper the same OR make up your own theme such as footy emblems, or animal names – as long as you end up with lots of pairs of cards/paper squares that match.) Mix your cards up.

(Playing - Put each card upside down on the table/floor. Find your matching pairs by turning two at a time. If no match, turn back over. Try again. Good luck.)

Science

This book has Primary school level science activities for your child. The activities draw from the Australian Curriculum Science standards.

How can I support my child?

Science is all about exploring the world around us - observing, asking questions and seeking explanations. It is important for children to understand that science relies on collecting accurate results and working out what they mean.

Before doing an experiment or making observations, read through the activity with your child. Ask your children what they think will happen and why! Encourage your children to ask questions and make careful observations about what they see, hear and smell. All these science activities can be done at home and do not need specialised science equipment.

Here are some simple family activities that are linked to science.

- Collect and cook bush medicine
- Go for a walk and collect bush tucker that is in season
- Look at the weather forecast and compare it to what is happening outside. Is it raining, windy, sunny? What seasonal winds are blowing?
- Look for freshwater in creeks and trees (not from the tap). Check the tides and look at the moon.
- Look at the stars and tell stories about them.
- Do some exercise and then measure your heartbeat. Compare it to other people's.



Science Year 4: Plant science!

Aim: to gain an understanding of plant life cycles and the roles of parts of plants

Activity 1: In the garden

Take the children outside into the garden.

Ask how many different parts of plants they can find (leaves, flowers, roots, stems, seeds etc). Help the children to identify that, while plants look different, they have some parts the same.

Activity 2: Flower features

Ask children to draw two different flowers. They should draw scientific diagrams (no colours, parts labelled with ruled lines).

Note: See if the children can match the parts they see to the diagram below.

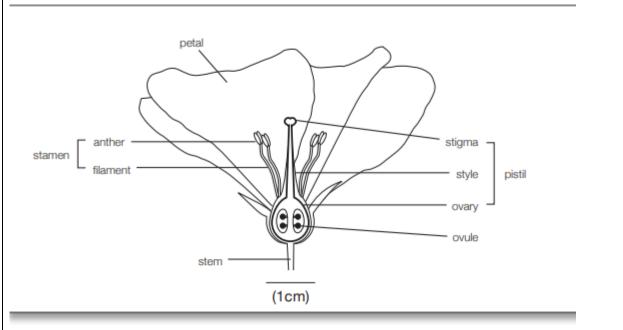
Ask the children to label their diagrams: pollen, petals, stamen and stem. They may be able to locate the pistil (the long middle bit).

Ask the children, what is the same and what is different between them? Ask the children why they think the parts are important OR what they might be used for?

Activity 4: Flower cross sections

Ask the children to collect 3 or 4 flowers.

Help the children to cut the flowers in half, so that a cross section is formed. Ask the children to draw a diagram of the cross section, similar to below:



Cross section of a flower

Explain to the children that pollen comes from the stamen of a flower. It can be brushed off the anther. These are the male parts of the flower. When the pollen enters the pistil, pollination (or fertilisation) happens and a seed can grow in the ovary. These are the female parts of the flower.

Activity 5: Fruits and Seeds

Explain to the children that when a flower is pollinated, the ovary grows larger and ripens into a fruit. This is what we eat in some plants! The fruit protects the seeds and helps to attract animals. When animals eat the fruit, the seeds are taken away from the main plant and animals help the plants to spread and grow!

Ask the children to help cut up pieces of fruit to find the seeds. Ask the children: why do plants make seeds? What is the equivalent in humans (babies!)

Activity 6: Pollinators and seed carriers

Ask the children to identify what animals or insects they can see in the garden.

Ask the children if they think they are helpful to plants.

(honeyeaters, bees and butterflies help pollinate flowers, birds and possums help spread seeds, worms help aerate the soil for roots to grow)

Ask the children what would happen if there were no more bees to pollinate flowers? (No bees would mean that there would be no fruit or vegetables and a lot less food!)

Activity 7: Growing seeds

If you have seeds at home, you can grow them with your children!

To make it an experiment, plant 10 seeds in 1 pot and place outside, place another 10 seeds in another pot and place inside in a well-lit spot, plant 10 seeds in another pot and place in a dark place inside. Water seeds the same amount of water each day and keep a record how many of the 10 seeds grow! They could be measured and their heights recorded as well. *This should highlight that plants need light to grow*.

For another experiment, place 10 seeds in 2 pots and place in a well-lit spot inside. Water one pot and don't water the other pot. *This will highlight to children that plants need water to grow*.

Note: if you don't have soil, you can use cotton wool or paper towel.

Activity 8: Seed dispersal

Ask the children why seeds need to spread away from their parent plant. Ask the children to brainstorm ways that seeds are spread (*floating in water like coconuts, blowing in the winds like dandelions, attaching to animals like burrs, being eaten by animals like apples*)

Collect seed from your garden or local park. Try using one or more of the following methods to collect the seeds.

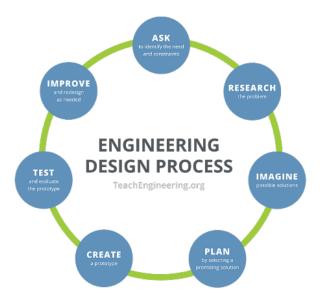
- Drag an old blanket or fuzzy cloth behind you on the ground.
- Place a large, old, wool sock over your hands or shoes to see what you can pick up.
- Wear bracelets made of masking tape (sticky side out), to hold the seeds you find.

Look closely at the seeds you have collected and decide what special tricks they had used to allow them to be collected by your methods (eg little hooks or sticky bits).

Try to find other kinds of seeds that have little wings or cases that explode and think about how these plants disperse their seeds.

Science, Technology, Engineering and Maths (STEM)

STEM stands for Science, Technology, Engineering and Mathematics. This learning area allows children to use science and maths to solve real world problems. In STEM we use an inquiry process, as shown in this diagram.



How can I support my child?

Encourage your child to **ask questions.** Help them to find a problem they can solve.

Research the problem. Help them to find out more about it.

Brainstorm and **imagine** possible solutions. Help them to write these down, encourage them to draw a picture or a diagram of their ideas.

Create a **plan** to make one solution. Help them to make their plan, discuss, read through it with them.

Create a model (prototype) of their solution. Help them to find materials that they need.

Test and evaluate the model and improve the model as needed. Run through it with them, take photos, suggest changes.

Make sure that there are **constraints** on the activity. Constraints might be a time limit on how long children have to make something, or how much equipment they can use. This will keep the problem to a size and scope that children can manage.

Find simple problems at home that your children can solve. Here are some ideas:

- The best way to clean the kitchen
- How to stop animals from coming inside the house
- How to stop ants and flies from getting into the rubbish bin
- How to pack the car so that everyone can fit in



Hands-on Activity: A house for me- Materials and Design for different climates

Parent instructions

In this activity, children will brainstorm and discuss what materials houses in different climates are made from. They will build simple models and test the houses.

Materials needed

Hay/long grass	Clay/mud	Sticks (or similar)					
Sugar cubes (or similar)	Lego (or similar)	Small stones (or similar)					
Flour (snow)	Fan (wind)	Water (rain)	Hairdryer (heat)				

Note: this activity can be done using whatever equipment you have at home. Look outside in the garden, look in the kitchen and look in the study!

Instructions

- Ask children: if you could live anywhere in the world with weather of your choice, where would you live? What would your house look like? Are houses around the world the same? What are houses made from in tropical islands? How are houses built in Darwin to protect them from floods? How are houses built in the arctic?
- Explain that houses in different areas are built differently, based on what materials are available and what the climate is like
 - In the desert regions of southern America, they build houses rom clay, straw and water mixed together (this mixture is called adobe). The adobe is used to make thick walls to keep buildings cool, but would crumble in the rain.
 - In Alaska and Canada, the local people made Igloos from snow or ice. The dome shape helps make the igloo strong, but these would not be good in the heat!
 - In the Pacific Islands, where it is hot and wet, houses are made from palm leaves and woven grasses and are sometimes built on stilts to keep them from getting wet and to let a breeze keep the house cool underneath
- Tell children that their challenge is to design and build a model of a house. Steps:
 - 1. They must think about what a house needs and what rooms it must have.
 - 2. They must choose a location for the house and work out what the climate would be like
 - 3. They must make a simple drawing to show before they start building

- 4. They must build their houses, using the available equipment, on the piece of grid paper provided
- 5. They must count the squares, working out the area of their house
- 6. They can test their house against the weather conditions they would face (flour for now, fan for wind, water for rain and hairdryer for heat)
- 7. Talk with your child about how they think their house went! They can re-build or improve their house

Vocabulary:

Adobe: Brick building material made from	Climate: A region with particular weather
sun-dried mixture of earth and straw	conditions
Arctic: Northernmost area of the Earth. Has	Tropics: the area around the middle of the
long cold winters.	Earth. Typically have a dry and a rainy
	season
Igloo: a house made from snow or ice in the	
form a dome (when temporary)	



FREE K-12 standards-aligned STEM curriculum for educators everywhere! Find more at **TeachEngineering.org**.

Hands-on Activity: **A House for Me: Materials** and Design for Different Climates

Quick Look

Grade Level: 4 (3-5) Time Required: 1 hours 15 minutes 45 minutes for building and 30 minutes for testing Expendable Cost/Group: US \$3.00 Group Size: 2 Activity Dependency: None Subject Areas: Earth and Space, Science and Technology

Summary

Students brainstorm and discuss the different types of materials used to build houses in various climates. They build small models of houses and test them in different climates. *This engineering curriculum aligns to Next Generation Science Standards (NGSS).*



Engineering Connection

Civil and environmental engineers are involved in designing structures. They must take into consideration the climate and type of land where they are building to ensure that the



For a house to best protect its inhabitants, it must be designed to suit the climate and building resources of its location.

type of structure chosen will suit the environment. If an area is known for earthquakes, precautions must be taken to build a structure that can withstand as much of the impact of the earthquake as possible. If the area is extremely wet, the foundation must be made deep enough and solid enough for the house not to sink or slide.

Learning Objectives

- The impact climates have on the building of structures
- Details about several types of climates

- Basic structural design
- Basic experimental skills

Educational Standards

- > NGSS: Next Generation Science Standards Science
- > Common Core State Standards Math
- > International Technology and Engineering Educators Association Technology
- > State Standards

Materials List

- hay or long grass
- clay
- Popsicle sticks
- sugar cubes
- LEGOs
- small stones
- flour (snow)
- fan (wind)
- water (rain)
- hairdryer (heat)

Worksheets and Attachments

Centimeter Grid Paper Handout (pdf) Performance Assessment Rubric (doc) Performance Assessment Rubric (pdf)

Visit [www.teachengineering.org/activities/view/a house for me] to print or download.

Introduction/Motivation

If you could live anywhere in the world and in the climate of your choice, what kind of a house would you construct? What would you need to build your house so that it could withstand the climate? In the next two classes you are going to use the given materials to create a house of your choice. You will need to choose materials that are suitable for the climate you have chosen to live in. Your house must still be standing after we have huffed, puffed, and tried to blow your house down!!

Procedure

Background

People in different parts of the world have different materials that they can use to build their homes and other structures. When building a home, they think about how to best use these materials to build a house that works well for where and how they live. In the southwestern part of the US, where people have a lot of clay and little wood, they build houses from adobe, a mixture of clay, straw and water. Adobe houses have very thick walls that keep them cool in the hot dry desert weather. Adobe houses would not be good in places where it rains a lot because too much water makes adobe crumble. The weather in certain tropical islands in the Pacific ocean is hot, but wet. People there make their homes from materials that are easy to find, such as palm leaves, woven grasses and bamboo. Sometimes they build the houses on stilts to keep them off the wet ground and let the breezes move under the house, helping to keep it cool.



An example adobe house.

In ages past, the Eskimos in Alaska and Canada built their houses out of sod or snow. These domeshaped houses are called igloos. The dome shape of the igloo makes it very strong and able to withstand powerful winter storms. Some Native Americans built dome-shaped houses made of poles, leaves and tree bark. These



An example igloo.

houses were called wigwams. Native American tribes that moved a lot often built cone-shaped tepees using buffalo skins or bark. Tepees could be easily built and taken apart quickly. Some Native Americans lived in more permanent structures called lodges made from logs and sod.

When early American settlers came to New England, they found the ground covered with large stones. They used these stones to build houses and walls that you still see in New England today. The northwest part of the US and Canada has plenty of forests, so most houses in these areas are made of wood. In areas of China with few forests, it is rare to have a wooden house. Instead, the Chinese people use tile, concrete and stone to build beautiful pagodas and other structures.

In parts of Africa, where tall grasses grow, people weave the stems of dried grass together to make thatch huts. In Tibet, some people even make their houses out of wool! They shear the wool from oxlike animals called yaks. The wool walls keep the houses warm through the cold winter months. Most houses in the US today are built of wood, brick, stone, concrete, aluminum or even glass!

Recommended Resources:

Biomes are distinct ecological communities of plants and animals living together in particular climates. Learn more about biomes at:



An example teepee.

http://kids.nceas.ucsb.edu/biomes/index.html



A stone house with a sod-covered roof, and a house structure made of wood.



An example pagoda.

See photos of snow-block igloo construction at: https://www.wikihow.com/Build-an-Igloo See many photographs of teepees at: http://www.photovault.com/Link/Cities/Southwest/Teepee.html Hoberman, Mary Ann. *A House Is a House for Me.* The Viking Press: New York, NY, 1978.

Before the Activity

- Gather materials.
- Read Mary Ann Hoberman's book, A House Is a House for Me.

With the Students

Present the Engineering Design Challenge:

- 1. Have the class think about why people need houses, what materials are needed to build a house, and what the various parts of a house include.
- 2. Pair students and have each team choose an environment where the students want their house built. Have students figure out what type of climate their house must be able to handle in that environment. Instruct them to design and sketch a house to withstand that climate.
- 3. Have each group to present their concept to the rest of the class. Have the class comment and make suggestions on each other's ideas.

Build:

- 4. Have the groups build their designs with the available materials. Have students construct their houses on an 8.5 x 11 piece of paper with a grid printed on it.
- 5. Estimate the area of the house by counting the squares.

Test:

- 6. Test the houses against the elements that would be appropriate for the climate they built their houses to withstand.
- 7. Compare each of the groups' houses and discuss what materials are needed in different climates.

Vocabulary/Definitions

Adobe: A brick or building material made of a sun-dried mixture of earth and straw.

Arctic: The northernmost area of the Earth centered on the North Pole, characterized by long, cold winters and short, cool summers.

<u>Climate:</u> A region with specified weather conditions; the average weather conditions of a particular place or region over a period of years.

<u>Climograph</u>: A graph that demonstrates the precipitation and temperature for an area.

Hut: A small and often temporary dwelling or shelter.

Igloo: An Eskimo house usually made of wood, sod or stone when permanent, or of blocks of snow or ice in the form of a dome when built for temporary use.

Lodge: A house set apart for residence in a special season.

Pagoda: A Far Eastern tower of several stories erected as a temple or memorial.

Taiga: A subarctic, evergreen coniferous forest of northern Eurasia located just south of the tundra and dominated by firs and spruces.

Tepee: A cone-shaped tent usually of skins used as a home by some Native Americans.

Tree House: A structure (as a playhouse) built among the branches of a tree.

Wigwam: A hut of the Native Americans of the Great Lakes region and eastward that usually has an arched frame of poles covered with bark, rush mats or hides.

Assessment

Final Evaluation: Use the attached rubric to evaluate student teams' success in three areas: quality of design and construction, performance of house against climate tests, and demonstrated understanding of concepts. Show students the rubric criteria in advance to clarify the grading process.

Investigating Questions

- What different kinds of homes are you familiar with?
- Why are houses around the world made of different materials?
- Why do people and animals need shelter?
- What types of materials are used to build houses?
- What materials are best for certain climates? Why?
- What would happen if the wrong materials were used for a given climate?
- What does climate mean? What is one type of climate?
- Which house withstood the elements best? Why?

Additional Multimedia Support

Have students read and then discuss an example in west Africa where a school was built to work with the climate and local materials and labor to withstand weather conditions ranging from blazing sun to torrential showers. The designer, a native of the community, reverse engineered everything he was taught at school, using principles of heat to figure out natural cooling, and learning to design windows that would protect from the blazing sun but still offer ventilation. See "Homegrown Hero" in the *Architectural Digest* at: https://www.architecturaldigest.com/story/diebedo-francis-kere-opera-village-burkina-faso-article.

References

• Kessler, James H. and Andrea Bennett. *The Best of WonderScience: Elementary Science Activities.* page 20. Boston, MA: Delmar Publishers, 1997. ISBN: 0827380941

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Supporting Program

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1 Centimeter Grid Paper

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