

New Zealand Articulation Test N.Z.A.T

Jayne Moyle © 2004

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Acknowledgement to Microsoft Office Design Gallery Live.

New Zealand Articulation Test

Administration Guidelines

Administer the test in a well lit, ventilated room away from distractions. You will need a desk and two suitably sized chairs. Seat the child on your left and lay the test on the desk in front of the child. Talk to the child for a while to make sure they feel comfortable with you and the testing process. This test takes between 3-15 minutes to administer, depending on the age and abilities of the child.

Administering Consonant, Blend, Vowel and Multisyllabic Sections

Show the child the first page and say: *“Tell me what these pictures are called. Sometimes I might ask you to say the word again, if I didn’t hear it. Start from here”* (point to first picture).

Follow this hierarchy of prompts, if the child fails to name the picture with the target word spontaneously.

- Some of the words have a verbal cue already printed under the picture, read this out loud, if they need a cue.
- Point to the specific part of the picture e.g. the smoke / straw. Prompt with *“what’s this part here?”*
- Use a semantic cue e.g. *“you have it for lunch”* (yoghurt).
- Use a sentence completion cue e.g. *“it’s a green...”* (bottle).

Do not use forced choice questions e.g. *“is it van or car?”*

Do not use phonemic cues e.g. *“it starts with /w/”* or *“it’s a ssss...”*

If the child still is unable to name the picture correctly, use the following imitation cue:

- Name the picture with the target word.
- Say an intervening sentence without the target word in it.
- Reprompt for target word.

For example,

“It’s a hammer. You bang in nails with it. What is it?”

Do not use imitation, unless you have prompted several times without success.

Special instructions:

If the child misses a word out entirely, reprompt for it at the end of the page.

If the child says an alternative name for a picture, which still contains the target phoneme, check the word is listed as a valid alternative in the word list. Words with acceptable alternatives are pen / pencil, key / keys, lamp / light, spray / spraying, scratch / scratching. If what the child said is not listed, continue prompting to elicit the actual target word.

If a child uses a multisyllabic or compound word to describe a picture, prompt for the short word by saying the first part of the word for them, e.g. “spider...” (web). Watch out for this on the following words: spider web, basket ball, wine bottle, hamburger, chocolate yoghurt, hairbrush, jigsaw puzzle, sunshine, choo choo train, car keys, magician, television, fly spray.

Procedure for progressing through the test

Sections of the NZAT may be administered in any order or combination as deemed necessary by clinical judgement.

Scoring

Use a dot ● to mark in **correct** use of the target phoneme for each word.

If the child uses another phoneme, use the International Phonetic Alphabet (below) to transcribe their response.

Use Ø to mark omission of sounds.

If a child has inconsistent errors, note all the errors in the appropriate boxes as you go through the test.

Please note /r/ is the symbol commonly used in New Zealand for an alveolar approximant, not /ɹ/ as shown on the chart. If a child does trill an /r/, note this in writing in the comments section on the form.

THE INTERNATIONAL PHONETIC ALPHABET (revised to 1993)

CONSONANTS (PULMONIC)

	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	p b		t d			ʈ ɖ	c ɟ	k ɡ	q ɢ		ʔ
Nasal	m	ɱ	n			ɳ	ɲ	ŋ	ɴ		
Trill	ʙ		r						ʀ		
Tap or Flap			ɾ			ɽ					
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	h ɦ
Lateral fricative			ɬ ɮ								
Approximant		ʋ	ɹ			ɻ	j	ɰ			
Lateral approximant			l			ɭ	ʎ	ʟ			

Where symbols appear in pairs, the one to the right represents a voiced consonant. Shaded areas denote articulations judged impossible.

The IPA chart was developed by the Department of Linguistics, University of Victoria, Victoria, British Columbia, Canada.

DIACRITICS

Diacritics may be placed above a symbol with a descender, e.g. $\underset{\cdot}{\eta}$

◦ Voiceless $\underset{\cdot}{n}$ $\underset{\cdot}{d}$.. Breathy voiced $\underset{..}{b}$ $\underset{..}{a}$	̲ Dental $\underset{̲}{t}$ $\underset{̲}{d}$
✓ Voiced $\underset{✓}{s}$ $\underset{✓}{t}$	~ Creaky voiced $\underset{~}{b}$ $\underset{~}{a}$	┘ Apical $\underset{┘}{t}$ $\underset{┘}{d}$
^h Aspirated t^h d^h	~ Linguolabial $\underset{~}{t}$ $\underset{~}{d}$	▢ Laminal $\underset{▢}{t}$ $\underset{▢}{d}$
◡ More rounded $\underset{◡}{ɔ}$	^w Labialized t^w d^w	~ Nasalized \tilde{e}
◡ Less rounded $\underset{◡}{ɔ}$	^j Palatalized t^j d^j	ⁿ Nasal release d^n
⁺ Advanced $\underset{+}{u}$	^Y Velarized t^Y d^Y	^l Lateral release d^l
— Retracted $\underset{—}{i}$	^ʕ Pharyngealized $t^{ʕ}$ $d^{ʕ}$	^ˀ No audible release $d^{ˀ}$
̈ Centralized \ddot{e}	~ Velarized or pharyngealized $t̠$	
× Mid-centralized \tilde{e}	^ɹ Raised $\underset{ɹ}{e}$ ($\underset{ɹ}{ɹ}$ = voiced alveolar fricative)	
_ɹ Syllabic $\underset{ɹ}{ɹ}$	^ɹ Lowered $\underset{ɹ}{e}$ ($\underset{ɹ}{β}$ = voiced bilabial approximant)	
ˠ Non-syllabic $\underset{ˠ}{e}$	^ɹ Advanced Tongue Root $\underset{ɹ}{e}$	
ˠ Rhoticity $\underset{ˠ}{ə}$	^ɹ Retracted Tongue Root $\underset{ɹ}{e}$	

Whole word transcription:

Some children's productions of sounds vary from one attempt to the next and between phonemic contexts. In such cases, whole word transcription of each test item can be completed using the NZAT Transcription Record form provided. This will allow for a phonological process analysis at the clinician's discretion.

Administering the discussion picture subtest:

Show the child the picture and say "tell me all about what you see". Use minimal encouragers to keep the child talking about the picture for as long as possible e.g. "mmm", "oh yes" etc. If the child is reluctant to speak, make comments about the picture and then ask an open question e.g. "Look at the whale! He's squirting the sun with water! Tell me about the spider." As the child speaks, note sounds in error in the "Discussion Picture" comments section. If there are multiple errors noted in the consonant and blends subtests, tape record the child's speech sample from the discussion picture, and transcribe it in full.

Stimulability testing

Ask the child to watch and listen carefully as you correctly produce sounds misarticulated by the child. The child then tries to imitate the sound as modelled. If the examinee is successful at producing the sound after you in isolation, proceed to a syllable, then a word. Note the sound and position being tested in the stimulability section on the score form. Test stimulability for all sounds in error if the child's attention allows.

New Zealand Articulation Test

Name:_____ **Age:**_____ **M / F** **Date:**_____

Examiner:_____ **School:**_____

Stimulability Testing

	Initial	Medial	Final				
p				pr		i	
b				br		a	
t				fr		o	
d				tr		u	
k				dr		ε	
g				kr		e	
f				gr		ɪ	
v				bl		ʌ	
m				pl		ɒ	
n				kl		æ	
l				gl		ʊ	
h				fl		eɪ	
r				sl		aɪ	
w				sw		ɒʊ	
j				sm		aʊ	
ŋ				sn		ɔɪ	
s				sp		ee	
z				sk			
ʃ				st			
tʃ				spr			
dʒ				str			
θ				skr			
ð				skw			

Sound	Posn	Isol.	Syll.	Word

Comment on multisyllabic section:

Comment on discussion picture:

Raw Score:

Percentile rank:

Comments:

New Zealand Articulation Test Transcription Record

Name:	Age:	Facility:
Examiner:	M / F	Date of test:

pɛnsɪl	æpʊl	kʌp
bɔl	tɛɪbʊl	wɛb
tæp	bɒtʊl	bɒʊt
dɔ	lædɐ	bɛd
kɪz	sɛkəl	bark
gɛl	bɛgɐ	pɪg
fɪʃ	dɒʊfɪn	lɪf
væn	tɪvɪ	glʌv
maʊs	hæmɐ	wɛm
naɪf	mʌnɪ	trɛɪn
læmp	tɔɪlɐt	
hæt		
ræbɐt	kærɐt	
ʃɒʊgɐt	wɪl	

	sɪŋɪŋ	rɪŋ
sʌn	wɪsʊl	haʊs
zɪp	pʌzʊl	tʃɪz
ʃu	fɪʃɪŋ	brʌʃ
tʃeə	wɒtʃɪŋ	wɪtʃ
dʒæm	mædʒɪk	fɾɪdʒ
θʌm	nʌθɪŋ	bəθ
ðeə	feðeə	
prezənt	bred	fɾɒŋ
trʌk	dɾʌm	kræb
grɪn	blu	pleɪn
klaʊn	glaseɪz	flauwe
slaɪd	swɪŋ	sɾʊk
sneɪl	spɑɪde	skʊl
sta	spreɪ	stro

skrætʃɪŋ	skweə	
bi	ka	so
fud	bɛd	eg
pɪg	kʌp	pɒt
mæn	bʊk	treɪn
kɑːt	kau	bʊt
bɔɪ	eə	
sɒsədʒəz	ɡɒrɪlə	ænəmʊlz
pæsɪfək	mʊtəbaɪk	ʌmbrelə
wɒʃɪŋməʃɪn	kætəpɪlə	kelkjuleɪtə
nstreɪlɪjə	helɪkɒptə	taɪrənəsɔresreks

Comments:

NZAT Word List

Consonant assessment

pencil, pen	apple	cup
ball	table	web
tap	bottle	boat
door	ladder	bed
key, keys	circle	bike
girl	burger	pig
fish	dolphin	leaf
van	t.v.	glove
mouse	hammer	worm
knife	money	train
lamp, light	toilet	
hat		
sun	whistle	house
zip	puzzle	cheese
shoe	fishing	brush
chair	watching	witch
jam, jar	magic	fridge
thumb	nothing	bath
there	feather	
rabbit	carrot	
wheel		
yoghurt		
	singing	ring

Blend assessment

present	bread	frog
truck	drum	crab
green	blue	plane
clown	glasses	flower
slide	swing	smoke
snail	spider	school
star	spray, spraying	straw
scratch, scratching	square	

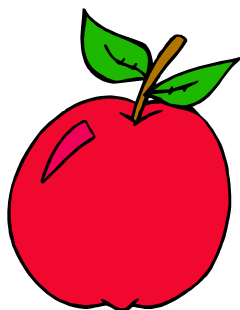
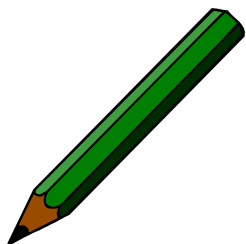
Vowel assessment

bee	car	saw
food	bird	egg
pig	mug, cup	pot
man	book	train
kite	cow	boat
boy	ear	

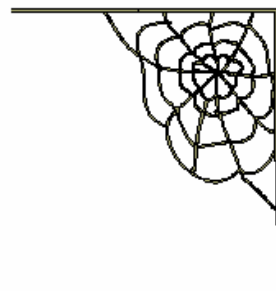
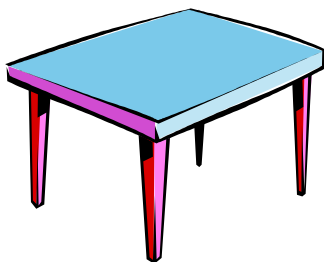
Multisyllabic word assessment

sausages	gorilla	animals
Pacific	motorbike	umbrella
washing machine	caterpillar	calculator
Australia	helicopter	tyrannosaurus rex

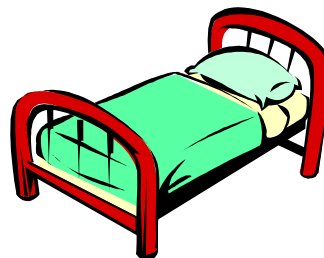
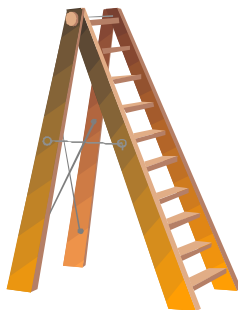
Consonant Assessment

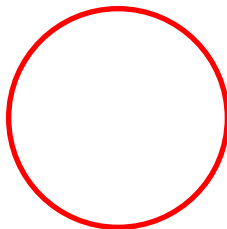


basket...



spider...

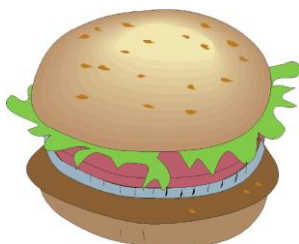




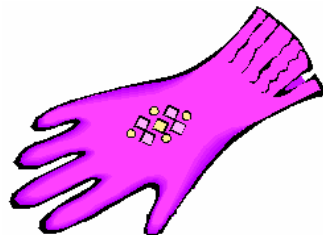
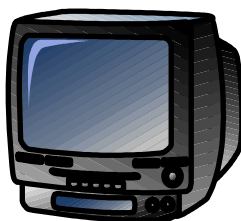
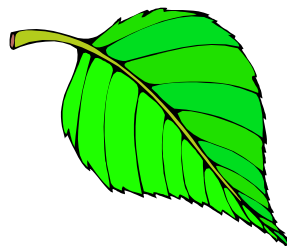
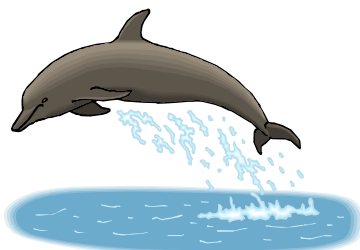
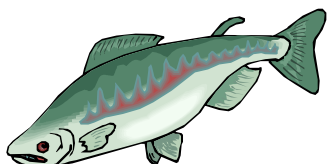
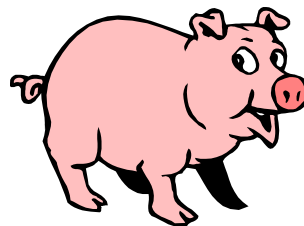
What shape is this?

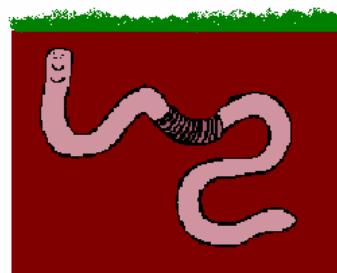
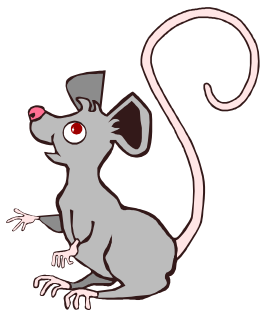


not a boy, it's a...

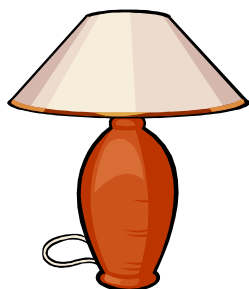
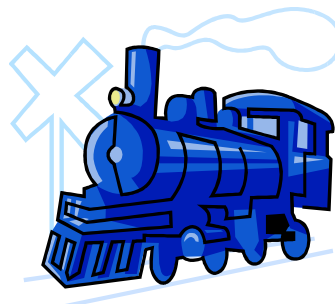


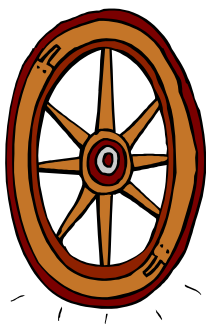
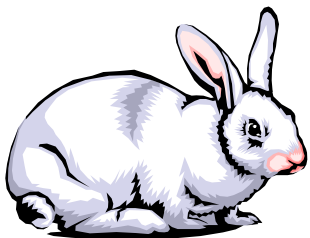
a ham...





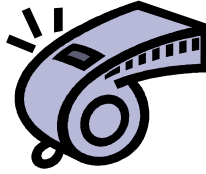
A wiggly...





What are they doing?

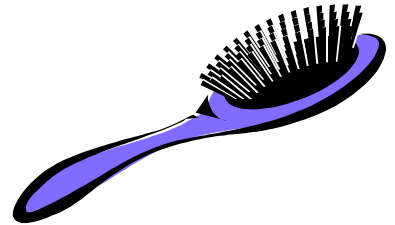




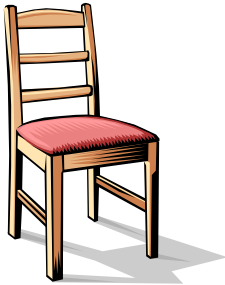
The mouse eats the...



She's gone...



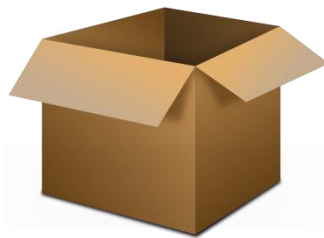
hair...



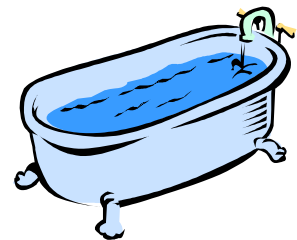
What are they doing?



He's doing...



What's in an empty box?

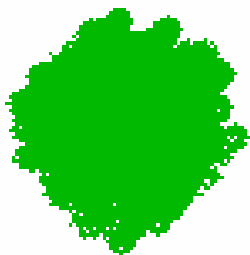
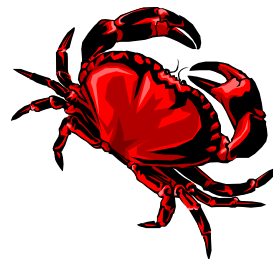
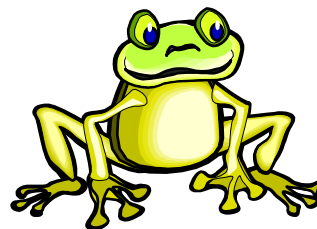


there

The door is over...



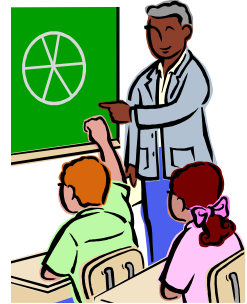
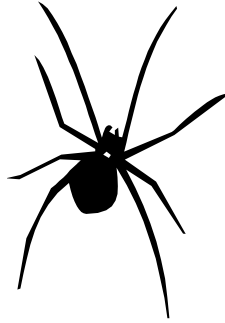
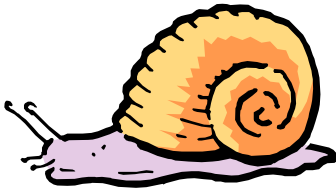
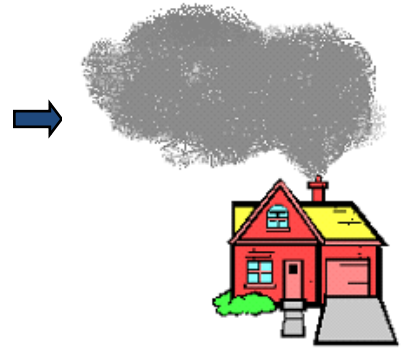
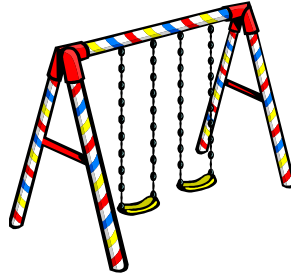
Blend Assessment



What colour is this?

aero...





They are at...



She's using fly...



Drink through a...

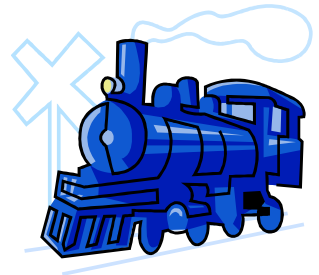
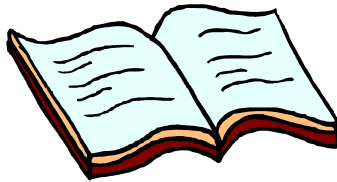
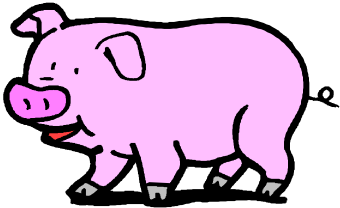
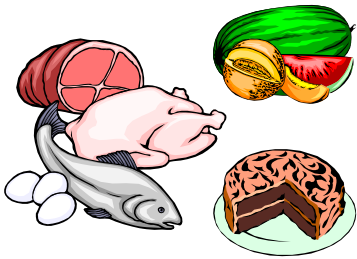
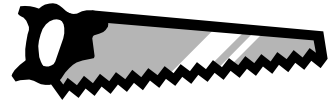
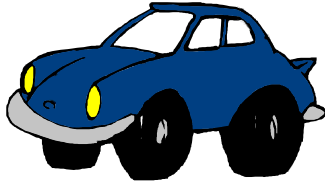


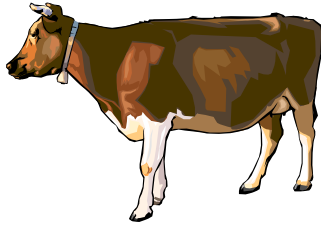
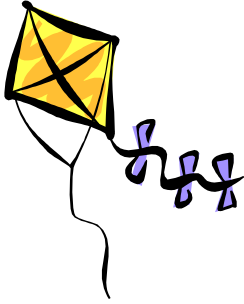
What's he doing?



What shape is this?

Vowel Assessment





Multisyllabic Word Assessment

