

How to use these token cutouts



These pages contain the text *We're Going on a Bear Hunt* by Michael Rosen. Each **cutout** shows a **next word** paired with the **previous word** that came immediately before it in the original text.

Model vitals		
560 tokens	88 unique tokens	1.39 bits/token entropy
2.6 perplexity	1.93 branching factor	

Anatomy of a cutout



Every word is assigned one of 8 colours, each with a name you can say out loud. **Previous** words appear inside a coloured box (the word's own colour as the background, in white text); the free-standing **next word** appears in plain coloured text. The same word always wears the same colour, whether you see it inside a box or free-standing. There are far more words than colours, so a colour narrows the search rather than settling it — always verify the word itself matches, not just the colour.

the colours: **black** **grey** **red** **brown** **green** **blue** **purple** **magenta**

Setup

Cut out the tokens along the dotted lines and **spread them out** face-up on the table, with no overlap if possible. This is the “training” step: every (previous, next) combination from the original text is now a physical cutout sitting on your table.

How to play: the matching game

To generate text, repeatedly find a cutout whose **previous word** matches the last word you've written, then **write its next word** onto your page. The word you just wrote becomes part of what you'll match against next — that's the chain.

Worked example

Step 1. Pick any cutout to begin — say this one — and copy its previous word *and* its next word onto your page.

Step 2. Look at the last word you've written (*going*) and find a cutout whose previous word matches it. Write its next word.

Step 3. Repeat: find a cutout whose previous word matches the last word you've written, and add its next word.

Keep going — write as much or as little as you like.

the cutout



your page

We're going

We're going on

We're going on a

Tips

Use colour as a fast filter. Scan by the rightmost previous-word box's colour first, then verify the actual word matches.

Pick from many candidates by eye. The more cutouts share the same previous word, the more often your eye lands on one — that's **weighted sampling** for free, and it's why some words follow others more often in your text.

Put the cutout back after using it — removing it would change the model's distribution next time round.

We're We're going going on on a a bear

bear hunt hunt ! ! We're We're going

going to to catch catch a a big big one one .

. What What a a beautiful beautiful day

day . . We're We're not not scared scared .

. oh oh oh oh ! ! grass grass ! ! Long Long ,

, wavy wavy grass grass . . We We can't

can't go go over over it it . . We We can't

can't go go under under it it . . oh oh , , no

no ! ! We've We've got got to to go

a bear on a going on We're going We're

We're going ! We're hunt ! bear hunt

one . big one a big catch a to catch going to

beautiful day a beautiful What a What

scared . not scared We're not We're day .

Long , ! Long grass ! ! grass oh ! oh oh oh

We can't ! We grass . wavy grass , wavy

We can't ! We it . over it go over can't go

, no oh , oh it . under it go under can't go

to go to got to We've got ! We've no !

go through through it it ! ! Swishy

Swishy swashy swashy ! ! Swishy

Swishy swashy swashy ! ! Swishy

Swishy swashy swashy ! ! We're We're going

going on on a a bear bear hunt hunt !

! We're We're going going to to catch catch a

a big big one one . . What What a

a beautiful beautiful day day . . We're

We're not not scared scared . . oh oh oh

oh ! ! a a river river ! ! a a deep deep ,

! Swishy it ! it ! through it go through

! Swishy ! Swishy ! Swishy Swishy Swishy

! Swishy ! Swishy ! Swishy Swishy Swishy

We're going ! We're Swishy ! Swishy Swishy

hunt ! bear hunt a bear on a going on

catch a to catch going to We're going ! We're

What a ! What one . big one a big

! We're day . beautiful day a beautiful

oh oh ! oh scared . not scared We're not

deep , a deep ! a river ! a river ! oh !

, cold cold river river . ! We We can't
can't go go over over it it . ! We We can't
can't go go under under it it . ! oh oh , , no
no ! ! We've We've got got to to go
go through through it it ! ! Splash
Splash splosh splosh ! ! Splash Splash splosh
splosh ! ! Splash Splash splosh splosh !
! We're We're going going on on a a bear
bear hunt hunt ! ! We're We're going
going to to catch catch a a big big one one .

one .	big one	a big	catch a	to catch	going to
We're going	! We're	! hunt	bear hunt		
a bear	on a	going on	We're going	! We're	
splash !	Splash splash	! splash	splash !	splash !	
Splash splash	! splash	splash !	splash !	Splash splash	
! splash	! splash	it !	through it	go through	
to go	got to	We've got	! We've	no !	
, no	oh ,	it .	under it	go under	can't go
We can't	We can't	it .	over it	go over	can't go
We can't	We can't	river .	cold river	, cold	

. What What a a beautiful beautiful day

day . . We're We're not not scared scared .

. oh oh oh oh ! ! mud mud ! ! Thick

Thick , , oozy oozy mud mud . . We

We can't can't go go over over it it . . We

We can't can't go go under under it it . . oh

oh , , no no ! ! We've We've got got to to go

go through through it it ! ! Squelch

Squelch squerch squerch ! ! Squelch

Squelch squerch squerch ! ! Squelch

beautiful	day	a	beautiful	What	a	What
scared	not	scared	We're	not	We're	day
Thick	mud	Thick	mud	oh	oh	oh
We	mud	oozy	mud	oozy	Thick	
We	over	it	go	can't	go	We can't
oh	it	under	it	go	under	can't
to	go	We've	got	We've	no	no
to	go	through	it	go	through	
!	Squelch	!	Squelch	!	Squelch	!
!	Squelch	!	Squelch	!	Squelch	!
!	Squelch	!	Squelch	!	Squelch	!

Squelch squerch squerch ! ! We're

We're going going on on a a bear bear hunt

hunt ! ! We're We're going going to to catch

catch a a big big one one . . What What a

a beautiful beautiful day day . . We're

We're not not scared scared . . oh oh oh

oh ! ! a a forest forest ! ! a a big big ,

, dark dark forest forest . . We We can't

can't go go over over it it . . We We can't

can't go go under under it it . . oh oh , , no

! We're squerch ! Squelch squerch

bear hunt a bear on a going on We're going

to catch going to We're going ! We're hunt !

What a ! What one . big one a big catch a

! We're day . beautiful day a beautiful

oh oh ! oh scared . not scared We're not

big , a big ! a forest ! a forest ! a oh !

We can't ! We forest . dark forest , dark

We can't ! We it . over it go over can't go

! no , oh , oh it . under it go under can't go

no ! ! We've We've got got to to go

go through through it it ! ! Stumble

Stumble trip trip ! ! Stumble Stumble trip

trip ! ! Stumble Stumble trip trip ! ! We're

We're going going on on a a bear bear hunt

hunt ! ! We're We're going going to to catch

catch a a big big one one . . What What a

a beautiful beautiful day day . . We're

We're not not scared scared . . oh oh oh

oh ! ! a a snowstorm snowstorm ! ! a

to go
got to
We've got
! We've
no !

! Stumble
! it !
through it
go through

Stumble trip
! Stumble
trip !
Stumble trip

! We're
trip !
Stumble trip
! Stumble
trip !

bear hunt
a bear
on a
going on
We're going

to catch
going to
We're going
! We're
hunt !

What a
! What
one
big one
a big
catch a

! We're
day
! beautiful
a beautiful

oh oh
! oh
scared
not scared
We're not

! a
snowstorm
! a
snowstorm
! a
oh !

a swirling swirling, , whirling

whirling snowstorm snowstorm . . We

We can't can't go go over over it it . . We

We can't can't go go under under it it . . oh

oh, , no no ! ! We've We've got got to to go

go through through it it ! ! Hoooo

Hoooo woooo woooo ! ! Hoooo

Hoooo woooo woooo ! ! Hoooo

Hoooo woooo woooo ! ! We're We're going

going on on a a bear bear hunt hunt !

no going on	a on	a bear	hunt ! bear hunt	! hunt !
Hooooo Woooo	! Woooo	! We're	going We're	
Hooooo Woooo	! Woooo	! Hoooo		
Hooooo Woooo	! Woooo	! Hoooo		
go through	it through	it !	! Hoooo	
, oh	no !	! We've	got We've	to go got to
We can't	go can't	under go	it under	. oh it .
We can't	go can't	go over	it over	. We it .
snowstorm	. whirling snowstorm	. We		
a swirling	, swirling	, whirling		

! We're We're going going to to catch catch a
a big big one one . . What What a
a beautiful beautiful day day . . We're
We're not not scared scared . . oh oh oh
oh ! ! a a cave cave . . a a narrow narrow ,
, gloomy gloomy cave cave . . We We can't
can't go go over over it it . . We We can't
can't go go under under it it . . oh oh , , no
no ! ! We've We've got got to to go
go through through it it ! ! Tiptoe Tiptoe !

catch a to catch going to We're going ! We're

What a What one big one a big

We're day beautiful a beautiful

oh oh scared not scared We're not

narrow, a narrow a cave a cave ! a oh !

We can't We cave . gloomy cave , gloomy

We can't We it . over it go over can't go

, no oh , oh it . under it go under can't go

to go got to We've got ! We've no !

TipToe ! ! TipToe it ! through it go through

! Tiptoe Tiptoe ! ! Tiptoe Tiptoe ! ! What's

What's that that ? ? one one shiny

shiny wet wet nose nose ! ! Two Two big

big furry furry ears ears ! ! Two Two big

big googly googly eyes eyes ! ! It's It's a

a bear bear ! ! Quick Quick back

back through through the the cave cave !

! Tiptoe Tiptoe ! ! Tiptoe Tiptoe ! ! Tiptoe

Tiptoe ! ! back back through through the

the snowstorm snowstorm ! ! Hoooo

What's    Tiptoe   Tiptoe   Tiptoe

one shiny ? one that ? What's that

It's a ! It's eyes ! googly eyes big googly

Quick back | Quick bear | a bear

cave ! the cave through the back through

TipToe  **TipToe**  **TipToe**  **TipToe**  **TipToe**  **TipToe** 

through the back through back TipToe!

the snowstorm i snowstorm HooH

Hooooo wooooo wooooo ! ! Hooooo

Hooooo wooooo wooooo ! ! Hooooo

Hooooo wooooo wooooo ! ! back back through

through the the forest forest ! ! Stumble

Stumble trip trip ! ! Stumble Stumble trip

trip ! ! Stumble Stumble trip trip ! ! back

back through through the the mud mud !

! Squelch Squelch squerch squerch !

! Squelch Squelch squerch squerch !

! Squelch Squelch squerch squerch ! ! back

! back	! squerch	! Squelch squerch	! Squelch
! squerch	! squerch	! Squelch squerch	! Squelch
! squerch	! squerch	! Squelch squerch	! Squelch
! mud	! the mud	! through the	! back through
! back	! trip	! Stumble trip	! Stumble trip
! Stumble trip	! Stumble trip	! Stumble trip	! Stumble trip
! Stumble	! forest	! the forest	! through the
! back through	! back	! woooo	! Hoooo
! Hoooo	! Hoooo	! woooo	! Hoooo
! Hoooo	! Hoooo	! woooo	! Hoooo

back through through the the river river !

! Splash Splash splosh splosh ! ! Splash

Splash splosh splosh ! ! Splash Splash splosh

splosh ! ! back back through through the

the grass grass ! ! Swishy Swishy swashy

swashy ! ! Swishy Swishy swashy swashy !

! Swishy Swishy swashy swashy ! ! Get

Get to to our our front front door door .

. Open Open the the door door . . Up

Up the the stairs stairs . . oh oh , , no no !

river !	the	river	through the	back	through
! splash	splish	!	splish	Splash	splish
! splash	splish	!	splish	Splash	splish
Splash splash	!	Splash	splish	!	Splash splash
through the	back	through	!	back	splish !
Splash splash	!	Splash	!	grass	!
!	Splash	!	Splash	!	the
!	Splash	!	Splash	!	Swishy
!	Splash	!	Splash	!	Swishy
!	Splash	!	Splash	!	Swishy
door .	front	door	our	front	to
!	Up	door .	the	door	Open the
no !	no	oh	!	oh	!
!	no	!	oh	!	Up the
!	no	!	oh	!	Up the

! We We forgot forgot to to shut shut the
the door door . . back back downstairs
downstairs . . shut shut the the door door .
. back back upstairs upstairs . . Into Into the
the bedroom bedroom . . Into Into bed bed .
. under under the the covers covers . . We're
We're not not going going on on a a bear
bear hunt hunt again again !

shut the to shut forgot to We forgot ! We

back downstairs back door the door

door the door shut the shut downstairs

Into the Into upstairs back upstairs back

bed Into bed Into bedroom the bedroom

We're covers the covers under the under

a bear on a going on not going We're not

again ! hunt again bear hunt