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# DNA

*an activity pack for  
curious kids*

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Puzzles  
Worksheets  
Quiz questions  
Colouring pages

# Welcome to this DNA-themed activity pack from Pale Blue Marbles!

This supplements my first blog post in my '[DNA for kids](#)' series, which will take your child on a learning adventure into the fascinating molecular world that forms the blueprint of life on our planet.

If you haven't read the post about [what DNA is](#) and [why it is so amazing](#), I recommend going through it with your child to give them an idea of what DNA looks like and how it encodes information. Spark their curiosity for this molecule that can transform a single cell into a fully grown salamander, daffodil or a human, among millions of other life forms!

I have included activities at different levels – choose the ones appropriate for your child.

## Cultivate curiosity and enjoy!

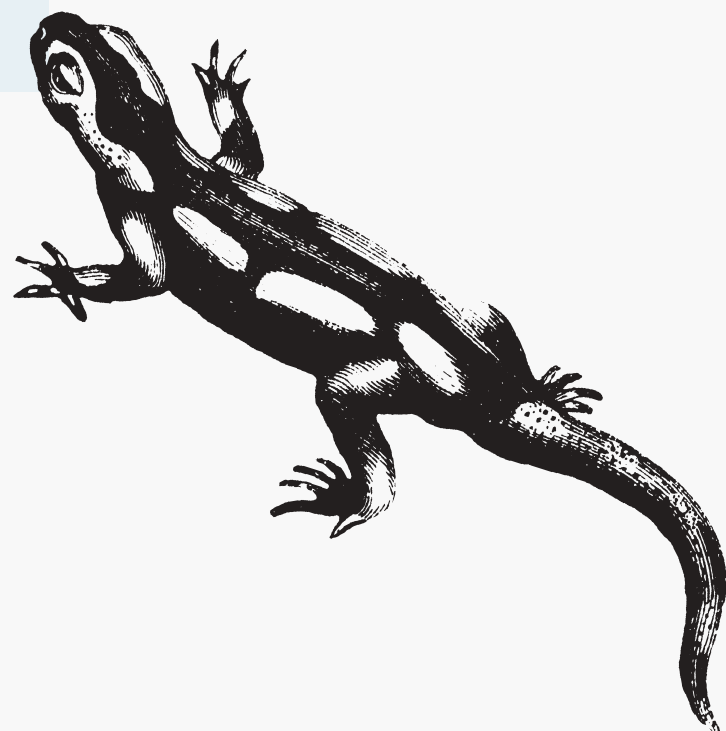
If you like the activities, please spread the word: comment on the blog posts or on the [Facebook page](#) and invite your friends to like and subscribe!

You can also follow me on [Twitter](#), [Instagram](#) and [Pinterest](#) for more activity ideas and astrobiology.



## WHAT'S INSIDE

- Two DNA word searches
- Two double helix mazes
- Match the DNA bases
- Complete the DNA
- DNA quiz
- Three colouring pages



# DNA word search: tricky

These 13 words are all connected with DNA. How many can you find? They might be vertical, horizontal, diagonal or backward. Good luck!

O T O M H B E A S D O N N W V J F L S H E T N A R  
I P L S Q V T D G J C H Q A D N Z E I G J S X C C  
Q R E L N H N B Q M P Z L H O Y H V A P M F K H E  
Y V C L O Q O Y F O K Z T Z J P R J Y X P Y F K Q  
P H D W U Y G L M P B B U T W C N C L T A R U C S  
E G X O J C L V G Y B I X U D K G J T D S B Z H F  
I N B U X X E O P X H U C T L G F E E G X K R Y N  
D N I R Z M S L Z V V K F M D W R N S U J T K K H  
C N Q M P N F D O R S K H L E I I X A Z X F D C K  
L I A X Y C V V M M B D C N N N I A B O X D D Z S  
V D V V V H Y J R V O L P X E L V Q W T L K Z L K  
R Y P C K Q T T A K X R Z Q E Z L C E N I N A U G  
P L Y V X D I G O O A O C H I E S Y X K M L F G V  
U E V C I I Q G I S H C E A D M C H U V B N E I X  
C U K D E C N R H K I L H D M R B W Z C F N L Z Z  
A Z Z S V A O O I I B N I L L B A G S O E A J M G  
G A Q P B C Q A Y U S P E P D O C G G G L B O J L  
I K D L U I U R O S F V W T W C K V Q W J K Y B M  
D T X M B E V D E O X Y R I B O B P X K E R P U V  
C E L L O L N L W R V W Q L K P O I Z J I Q Q Y G  
Y X W N K C W J H O I E N E U E N O B G R Q M L T  
N R J V Y U N V T P Q N S W R F E T R Q E K N Z V  
O U I W Q N I V H W I T X D K D B R V Y Q I F E C  
V H L C P Y U D M S R L Z C D I P Q N M N V A U N  
P W E Y S L X J S Z B Z Y D B R Z E X Z C A A R C

ADENINE  
GUANINE  
BASE  
DEOXYRIBO  
BACKBONE  
DOUBLE HELIX  
MACROMOLECULE

CYTOSINE  
THYMINE  
DNA  
NUCLEIC ACID  
CELL  
GENE

# DNA word search: easy

These 9 words are all connected DNA. How many can you find? They might be vertical, horizontal, diagonal or backward. Good luck!

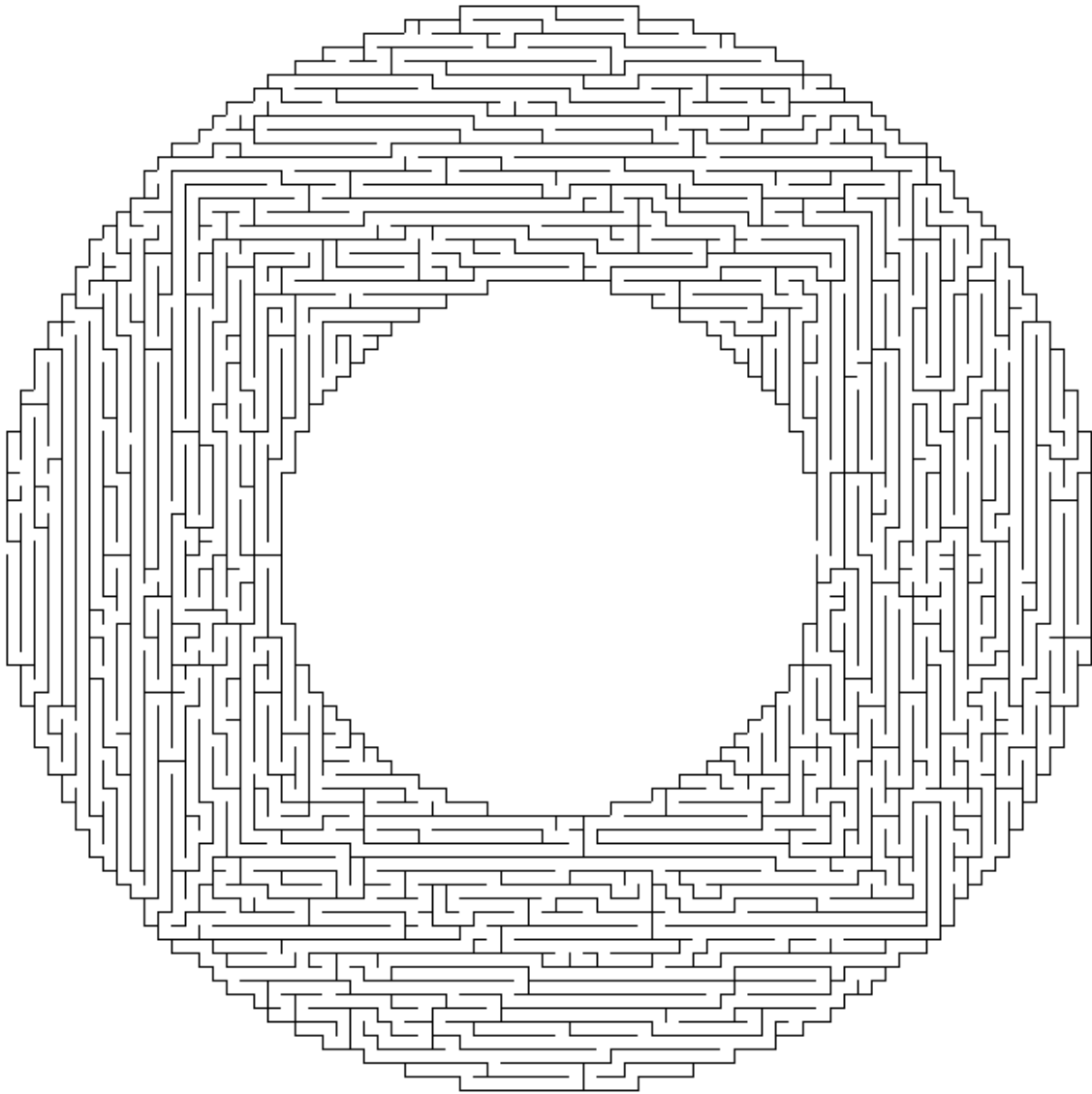
E W T C X M E E E X  
P N E F X C N U L J  
T L I M O I Z J U C  
L H C S N V Z D C G  
A Q Y E O J X Z E E  
K N D M H T W A L N  
S A D N I Y Y Q O E  
G U A N I N E C M P  
B A U J A L E V O Z  
H F X Q K M O T A W

ADENINE  
CELL  
DNA  
GUANINE  
THYMINE

ATOM  
CYTOSINE  
GENE  
MOLECULE

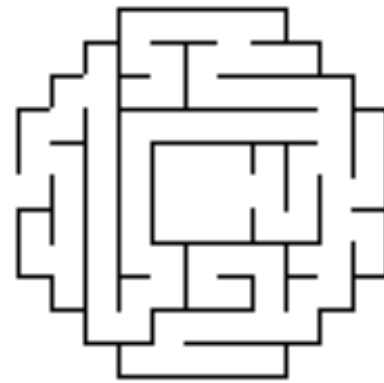
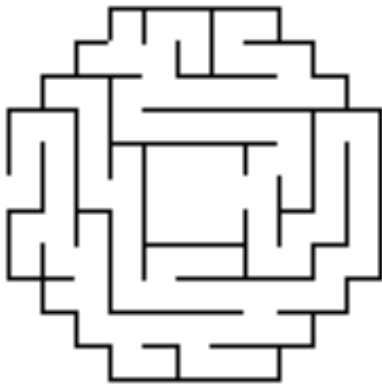
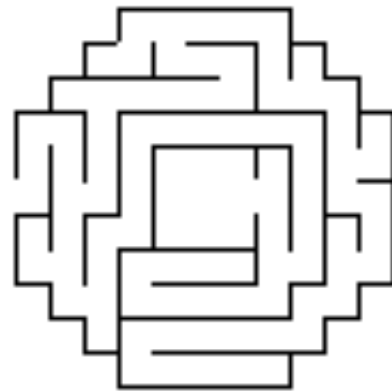
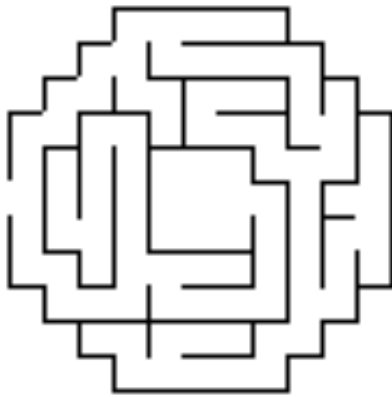
# Double helix maze: tricky

Spiral your way to the centre of this mega maze.



# Double helix maze: easy

Spiral your way to the centre of these little mazes.



# DNA base pairs

DNA contains four different building blocks called bases: adenine (A), thymine (T), cytosine (C) and guanine (G). These have special pairing rules: A always pairs with T and G always pairs with C. Colour the bases in using different colours then draw lines to match the pairs.

A	G
T	A
C	A
G	C
A	A
C	T
A	T
G	T
T	T
G	T
T	G
T	C
A	G
C	C
A	G
C	A

# Complete the DNA molecule

DNA contains four different building blocks called bases: adenine (A), thymine (T), cytosine (C) and guanine (G). These have special pairing rules: A always pairs with T and G always pairs with C. Complete the second strand then colour the bases in using different colours. The first one has been done for you!

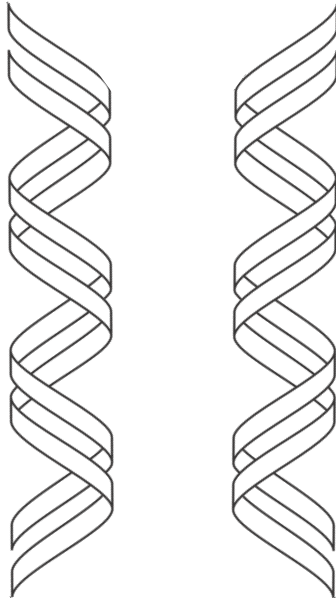
A	T
A	
T	
T	
C	
C	
A	
G	
G	
A	
A	
C	
T	
G	
T	
C	



# DNA Quiz

Test your knowledge of DNA with these questions! You can find all the answers in DNA for kids part 1 on the Pale Blue Marble blog.

Q1. DNA is a double helix. Is it usually a right-handed helix or a left-handed helix?



Left-handed double helix

Right-handed double helix

Q2. If you were to take one molecule of DNA and stretch it out, how long would it be?

- a) 2 mm
- b) 2 cm
- c) 2 m

Q3. Name the four DNA bases.

Q4. What do we call a sequence of bases that encode the instructions for building a molecular tool?

Q5. What kind of molecules are the tools that DNA encodes?

Q6. What percentage of your molecular tools have counterparts in a banana?

- a) 1 %
- b) 10 %
- c) 40 %
- d) 60 %

Q7. What is another name for a very big molecule?

- a) Micromolecule
- b) Megamolecule
- c) Macromolecule

Q8. How many atoms are there in an average DNA molecule?

- a) Hundreds
- b) Thousands
- c) Millions
- d) Billions

Q9. Name the five elements (types of atoms) that make up DNA.

Q10. Name 10 things that contain DNA.

**Colour me in!**

