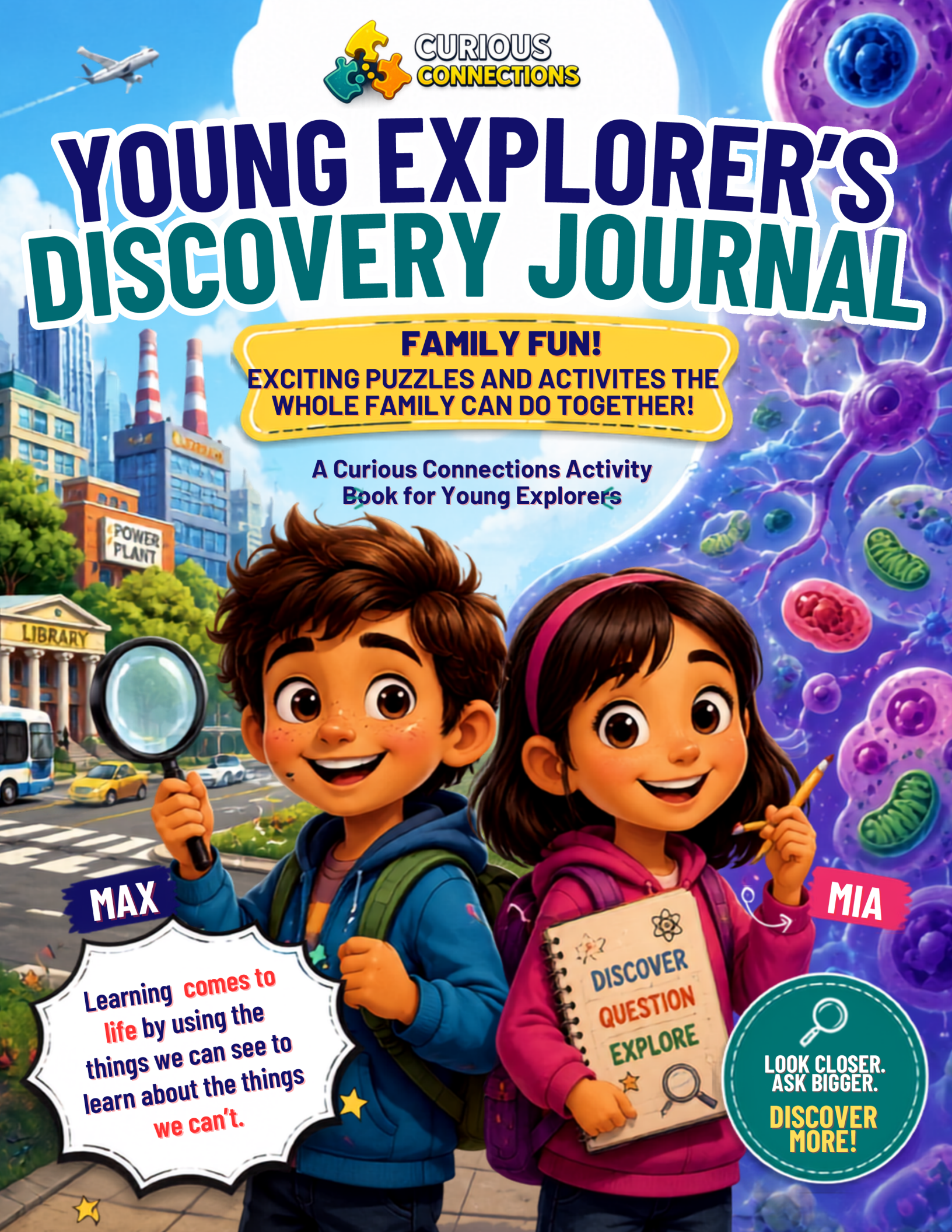

CURIOUS CONNECTIONS
YOUNG EXPLORER'S DISCOVERY JOURNAL
FAMILY FUN!
EXCITING PUZZLES AND ACTIVITES THE WHOLE FAMILY CAN DO TOGETHER!
A Curious Connections Activity Book for Young Explorers
POWER PLANT
LIBRARY
MAX
MIA
DISCOVER
QUESTION
EXPLORE
Learning comes to life by using the things we can see to learn about the things we can't.
LOOK CLOSER. ASK BIGGER.
DISCOVER MORE!

EXPLORER HEADQUARTERS

MISSION BRIEFING #1

BECOME A CITY SPOTTER!

Today we're going to be science detectives!

But we're looking for clues in a CITY!

LIBRARY

MISSION OBJECTIVE

Every amazing discovery begins with careful observation.
Today your mission is simple...

Become a CITY SPOTTER!

The next time you're riding in a car, walking through your neighborhood, or visiting a town, see how many important parts of a city you can discover.

Remember... **EVERY PART HAS A JOB!**

MISSION CHECKLIST

Can you find...

- ☐ Roads
- ☐ Bridges
- ☐ Buildings
- ☐ A Library
- ☐ A School
- ☐ A Hospital
- ☐ A Police Car
- ☐ A Fire Truck
- ☐ A Garbage Truck
- ☐ A Delivery Truck
- ☐ A Power Plant
- ☐ Workers
- ☐ A Park
- ☐ A Fence or Wall
- ☐ Traffic Lights
- ☐ A Bus

EXPLORER NOTES

The most interesting thing I found was...

_____

_____

It was interesting because...

_____

_____

_____

MISSION DEBRIEF

Now that you've completed your mission... think about these questions:

- Why does a city need roads?
- Why does it need electricity?
- Why does it need workers?
- What would happen if one part stopped working?



SOMETHING BIG IS COMING...

You just explored a real city.

But what if we told you...

...there's another CITY that's much harder to see?



CURIOUS CONNECTIONS EXPLORER PORTAL

SCAN TO ENTER THE EXPLORER PORTAL!

READY FOR YOUR NEXT MISSION?

Scan your EXPLORER PORTAL to unlock MISSION BRIEFING #2!

EXPLORER PROGRESS

1 ✓ — 2 — 3 — 4 — 5

MISSION COMPLETE!

MISSION ACCEPTED!

MISSION 2

EVERY PART HAS A PURPOSE!

In a city, every part has an important job.
Without that job, the city wouldn't work as well.

Every important part has a PURPOSE!

YOUR MISSION:

Look at each part of the city below.
Check the box that shows what its main purpose is.
Then, think about what would happen if it wasn't there.

Be a careful observer and a thoughtful explorer!

CITY PART	WHAT IS ITS MAIN PURPOSE?	WHAT WOULD HAPPEN IF IT WASN'T THERE?
ROADS	☐ Carry people and things from place to place ☐ Make buildings look pretty ☐ Provide electricity for the city	
POWER PLANT	☐ Make and deliver electricity ☐ Give people places to shop ☐ Clean up the city	
LIBRARY	☐ Provide books and information ☐ Put out fires ☐ Build new roads	
GARBAGE TRUCKS	☐ Pick up trash and keep the city clean ☐ Transport passengers ☐ Supply water to homes	
HOSPITAL	☐ Help people when they are sick or hurt ☐ Build tall buildings ☐ Provide food for the city	
FIRE STATION	☐ Put out fires and keep people safe ☐ Deliver packages ☐ Make electricity	

THINK ABOUT IT!

Pick one city part above.
Why is its job so important?
How would it help our city every day?

Every part has a job...

...and every job matters!

EXPLORER PORTAL

Scan to continue your EXPLORER JOURNEY!

Great job, Explorer! You're learning how every part of a city has a PURPOSE.
Get ready for the next mission!

MISSION 3

MAKE THE CONNECTION!

Everything in our city works together.
Let's connect the parts and see the big picture!

Every important part has a PURPOSE!

YOUR CONNECTION CHALLENGE:

Pick two city parts from the list.
How do they work together to help our city?
Write or draw your idea in the space below.

Great connections make a great city!

STEP 1: PICK TWO CITY PARTS

Choose any two city parts from Mission 2.

- ○  ROADS
- ○  POWER PLANT
- ○  LIBRARY
- ○  GARBAGE TRUCKS
- ○  HOSPITAL
- ○  FIRE STATION

STEP 2: HOW DO THEY WORK TOGETHER?

Explain how these two parts connect and help our city.

STEP 3: WHY IT MATTERS

Why is this connection important for our city and the people who live here?



Every connection is CONNECTED. You're building a smarter city!

GO DEEPER!

Want to explore more amazing connections? Scan the Explorer Portal to unlock extra missions, videos, and activities!



Great job, Explorer! You're learning how every part of a city is CONNECTED.
Get ready for the next mission!

MISSION 4

DESIGN MAKES IT WORK!

Our city doesn't happen by chance.
It's designed with a plan, purpose, and people who solve problems!

Great cities are built with smart DESIGN!

YOUR DESIGN CHALLENGE:

Every part of a city is designed to solve a problem or meet a need.
Look at the parts, think like a designer,
and imagine how you could make them even better!

Great design creates safe, strong, and smart cities!

GOOD DESIGN SOLVES PROBLEMS!

STEP 1: CHOOSE A CITY PART TO IMPROVE

Pick one city part from the list.
Then think... How could we design it even better?

- ○  **ROADS**
- ○  **POWER PLANT**
- ○  **LIBRARY**
- ○  **CITY HALL**
- ○  **HOSPITAL**
- ○  **FIRE STATION**
- ○  **WORKERS**
  (The people who build, run, and care for our city!)

STEP 2: DESIGN YOUR IMPROVEMENT

Draw your idea and answer the questions below.

What need or problem does your design solve?

Who will this design help?

What special features does your design include?

How does your design make the city stronger, safer, or smarter?

STEP 3: SHARE YOUR DESIGN

Write 2–3 sentences to explain your design and why it would make our city better.

DESIGN CHECKLIST ☑

- ☐ Solves a need or problem
- ☐ Helps people
- ☐ Includes special features
- ☐ Makes the city better

You're a city designer!
Every great city starts with a great idea!



Every city part is CONNECTED. Every design makes it better!

GO DEEPER!

Want to explore more amazing connections?
Scan the Explorer Portal to unlock extra missions, videos, and activities!

EXPLORER PORTAL

Great job, Explorer! You're learning how every part of a city is DESIGNED on purpose.
Get ready for the next mission!

MISSION 5

EXPLORER HEADQUARTERS

MISSION BRIEFING #5

MAKE IT FUNCTION!

Time to discover how city parts FUNCTION!

Let's see what each part does in action!

A city is full of moving parts.
Each one has a job to do.
When they all work together,
the city works for everyone!

MISSION OBJECTIVE

Discover how each city part works and helps the city run every day.

Explore the function behind every part!

STEP 1: PICK A CITY PART TO EXPLORE

Choose one city part from the list below.
Then get ready to discover how it works!

- ○ ROADS
- ○ BRIDGES
- ○ BUILDINGS
- ○ LIBRARY
- ○ SCHOOL
- ○ HOSPITAL
- ○ CITY HALL
- ○ FIRE STATION
- ○ WORKERS
- ○ PARKS

STEP 2: WHAT DOES IT DO?

What is the main job or purpose of this city part?

_____

_____

_____



STEP 3: HOW DOES IT WORK?

Write or draw how this city part works.
What makes it able to do its job?

_____

_____

_____

_____

_____

STEP 4: WHY IT MATTERS

Why is this function important for our city and the people who live here?

_____

_____

_____

_____

A CITY FUNCTIONS BEST WHEN EVERY PART DOES ITS JOB!

FUNCTION FACTS – MINI GLOSSARY

- **Function:** The job or purpose something has.
- **Work Together:** Different parts doing their jobs to help the whole.
- **Efficiency:** Doing a job well without wasting time or resources.
- **Reliability:** Being able to count on something to do its job every time.



SOMETHING BIG IS COMING...

Scan your EXPLORER PORTAL to unlock MISSION BRIEFING #6!





EXPLORER PROGRESS

1 ✓ 2 ✓ 3 ✓ 4 ✓ 5 ✓

MISSION COMPLETE!

MISSION ACCOMPLISHED!

Great job, Explorer! You're learning how every part of a city is **DESIGNED** to **FUNCTION** on purpose.
Get ready for the next mission!

MISSION 6

WHAT IF...?

Every amazing discovery starts with a curious question.



We've explored our city like real Explorers!



But what if there's another world where all these things are true, too?

YOU'VE DISCOVERED...

- [x] Every part has a purpose.
- [x] Every part is connected.
- [x] Good design helps things work.
- [x] When parts work together, the whole system functions.

WHAT IF...

- there was another world where every part had a purpose?
- every part was connected to the rest?
- it was carefully designed so things would work?
- and every part had a special job to do?

Do you think something like that could exist?

☐ YES ☐ MAYBE ☐ I'M NOT SURE

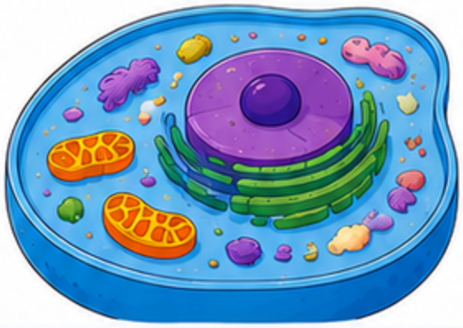
MANY PEOPLE USE A CITY TO HELP UNDERSTAND A LIVING CELL

because both are made of many different parts working together.

A CITY



A LIVING CELL



Like a city, cells are designed with many parts, each with its own purpose. All the parts are connect to function together and make you - you!

SOME OF THE PARTS INSIDE A LIVING CELL HAVE FUNNY NAMES!

Can you find them in the word search on the next page?

mitochondria • nucleus • dna
proteins • golgi • membrane
ribosomes • cytoskeleton
endoplasmic reticulum • vacuole

M	I	T	O	C	H	O	N	D	R	I	A
N	U	C	L	E	U	S	G	O	L	G	I
P	R	O	T	E	I	N	S	R	I	B	O
E	N	D	R	R	T	T	G	G	U	U	M
D	N	A	C	Y	T	G	G	E	E	C	N
D	H	A	C	Y	T	G	K	E	E	O	N
M	E	M	R	A	N	E	V	A	C	U	O	L	E

WHAT WILL YOU DISCOVER NEXT?



You began your journey by exploring a city.
Now you're ready to explore something much smaller...
and much more amazing than you ever imagined!

GET READY FOR THE NEXT ADVENTURE!



EXPLORER PORTAL

SCAN TO UNLOCK MORE MISSIONS, VIDEOS & FUN!

Great job, Explorer! Curiosity opens the door to incredible discoveries!



CELL CITY
WORD SEARCH



Find the hidden words that make your cells operate like little cities!

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

FIND THESE WORDS!

- MITOCHONDRIA
- NUCLEUS
- CYTOSKELETON
- PROTEINS
- GOLGI
- MEMBRANE
- DNA
- POWER PLANT
- TRANSPORTATION
- LIBRARY
- CITY HALL
- BUILDINGS
- WORKERS
- REPAIRS
- BORDER


CURIOUS CONNECTIONS
EXPLORER
SCAN TO ENTER THE
EXPLORER PORTAL!