

Levels of Organization



تم تحميل هذا الملف من موقع المناهج الإماراتية

موقع المناهج ← المناهج الإماراتية ← الصف الخامس ← علوم ← الفصل الأول ← ملفات متنوعة ← الملف

تاريخ إضافة الملف على موقع المناهج: 21:59:00 2026-08-21

ملفات اكتب للمعلم اكتب للطالب ا اختبارات الكترونية ا اختبارات ا حلول ا عروض بوربوينت ا أوراق عمل
منهج انجليزي ا ملخصات وتقارير ا مذكرات وبنوك ا الامتحان النهائي ا للمدرس

المزيد من مادة
علوم:

إعداد: Adel Rania

التواصل الاجتماعي بحسب الصف الخامس



صفحة المناهج
الإماراتية على
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

المزيد من الملفات بحسب الصف الخامس والمادة علوم في الفصل الأول

اللغز الجليدي: رحلة رجل الثلج

1

ملخص أن تصبح عالماً - بريدج

2

The Matter Mystery: Identify Properties of Materials

3

حل اختبار مطابق لمخرجات الهيكل الوزاري الجديد منهج انسابير الجزء الموضوعي

4

حل تجميعية نهائية وفق الهيكل الوزاري الجديد منهج انسابير

5

Science zone

Science

Grade: seven inspire

unit: 1 lesson:1

Teacher: Rania Adel

Learn . Explore . Discover

إعداد المعلمة: رانيا عادل

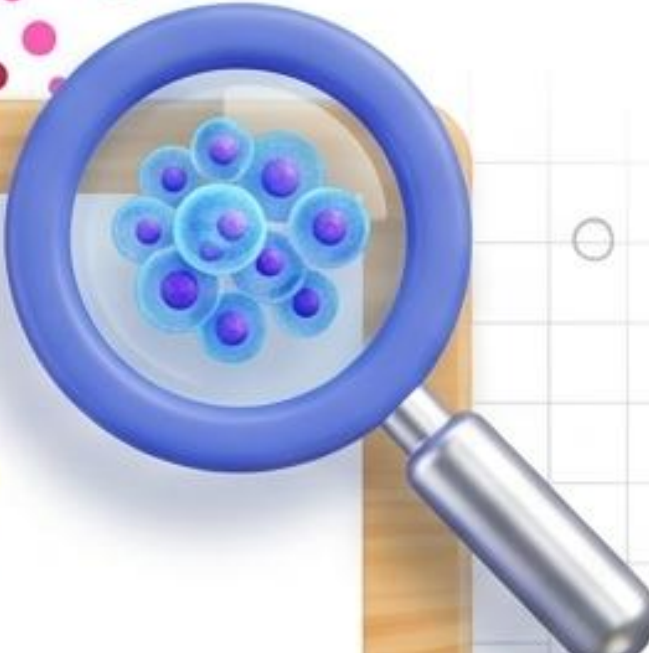
01128772427





Levels of Organization

How tiny cells build amazing bodies!



Today's Mission



**Discover how
tiny cells
build your
whole body.**



**Learn the
5 Levels of
Organization.**



**Compare how
human and
plant bodies
are put
together.**

The Canvas of Life

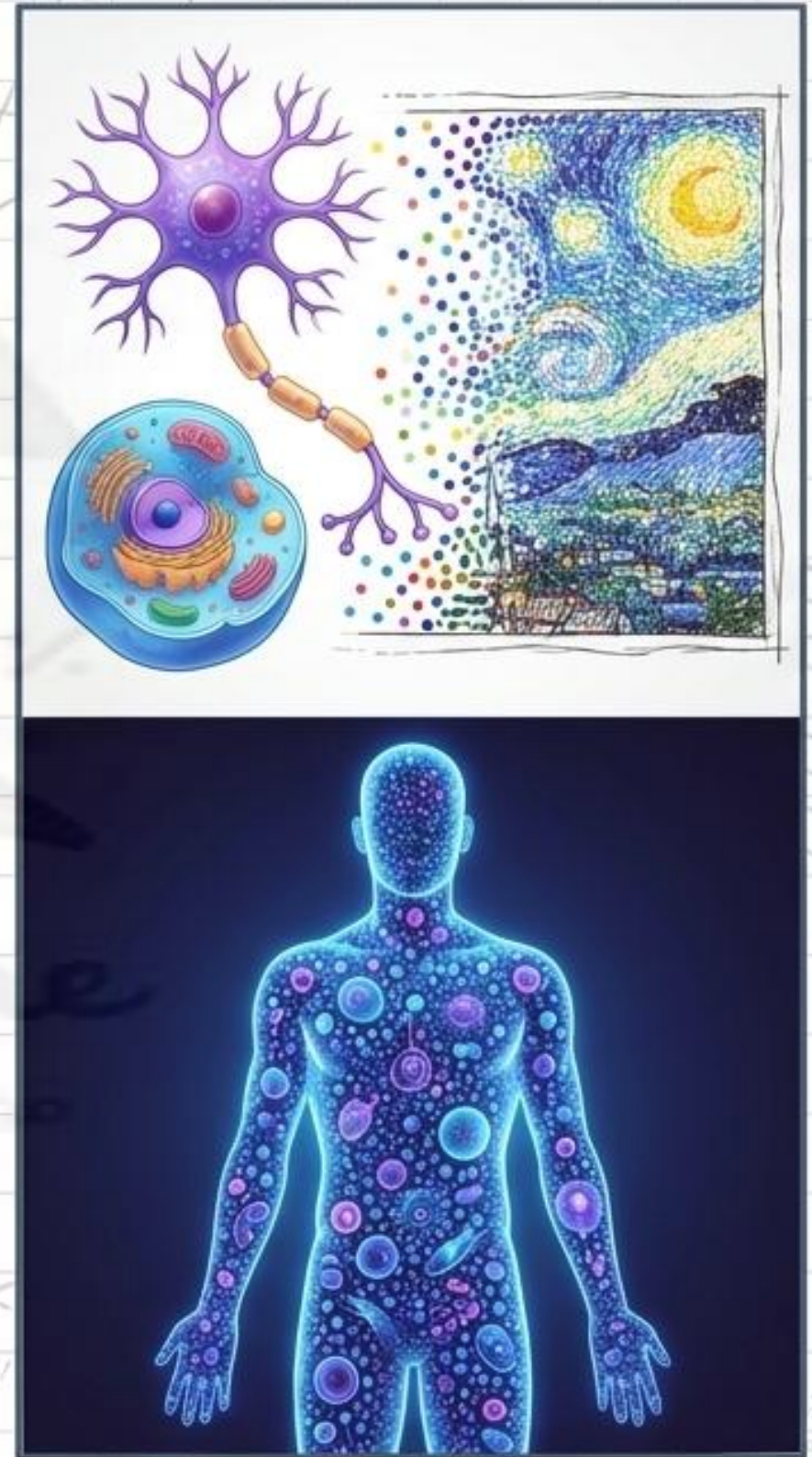
How is a famous painting like your body?

Pointillism! Artists use thousands of tiny dots to create one big picture.

Your body uses an estimated **37.2 trillion cells** to create YOU!

Click to collect your first clue...

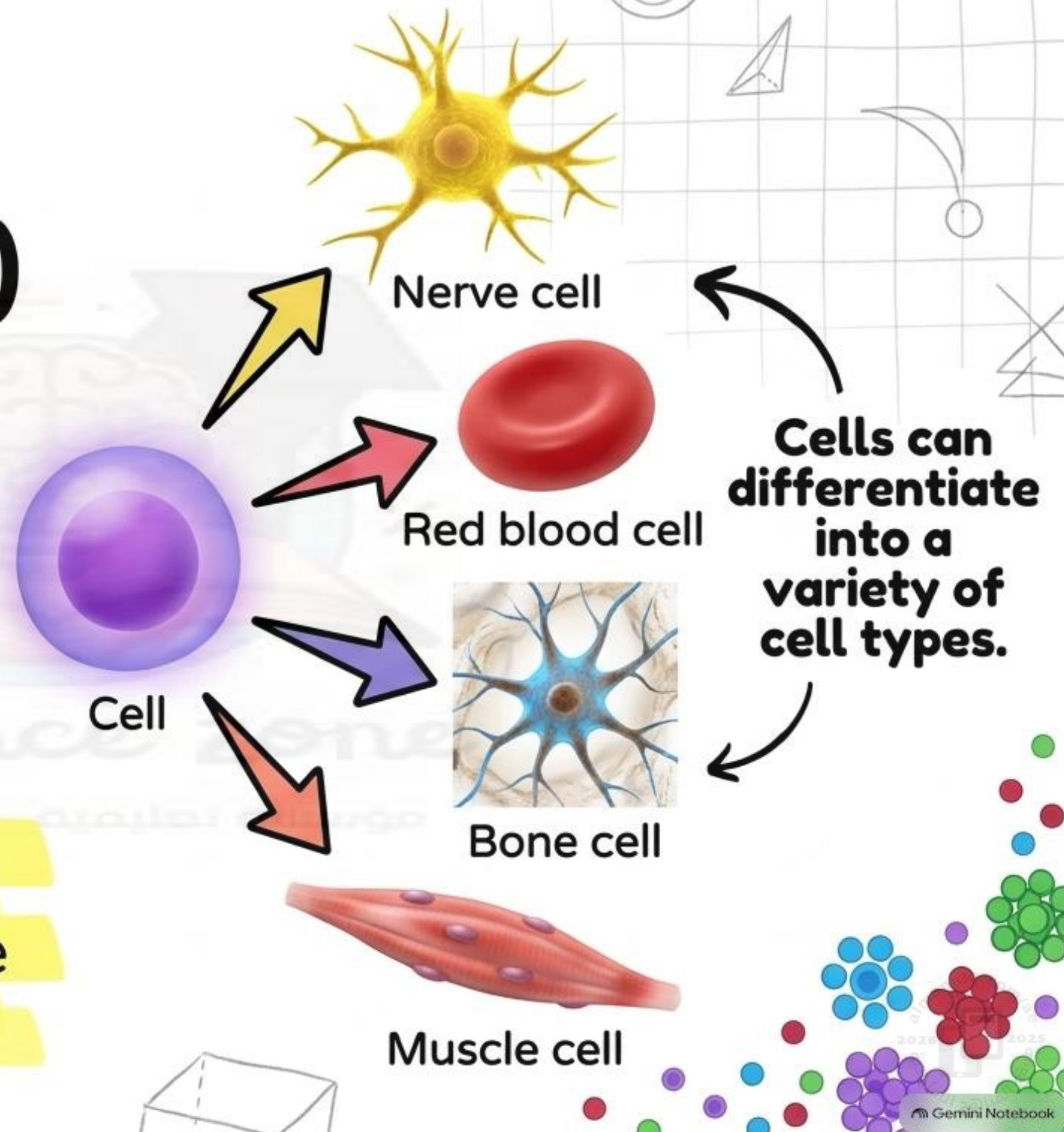
Let's see how these 'dots' are organized!



Level 1: Cells (The Basic Dots)

Organisms can be **unicellular** (one cell) or **multicellular** (made of trillions of cells!).

Cell Differentiation - As you grow, cells divide and change to do very specific jobs!



Level 2: Tissues

When similar cells group together to do a specific job, they form a **Tissue**.

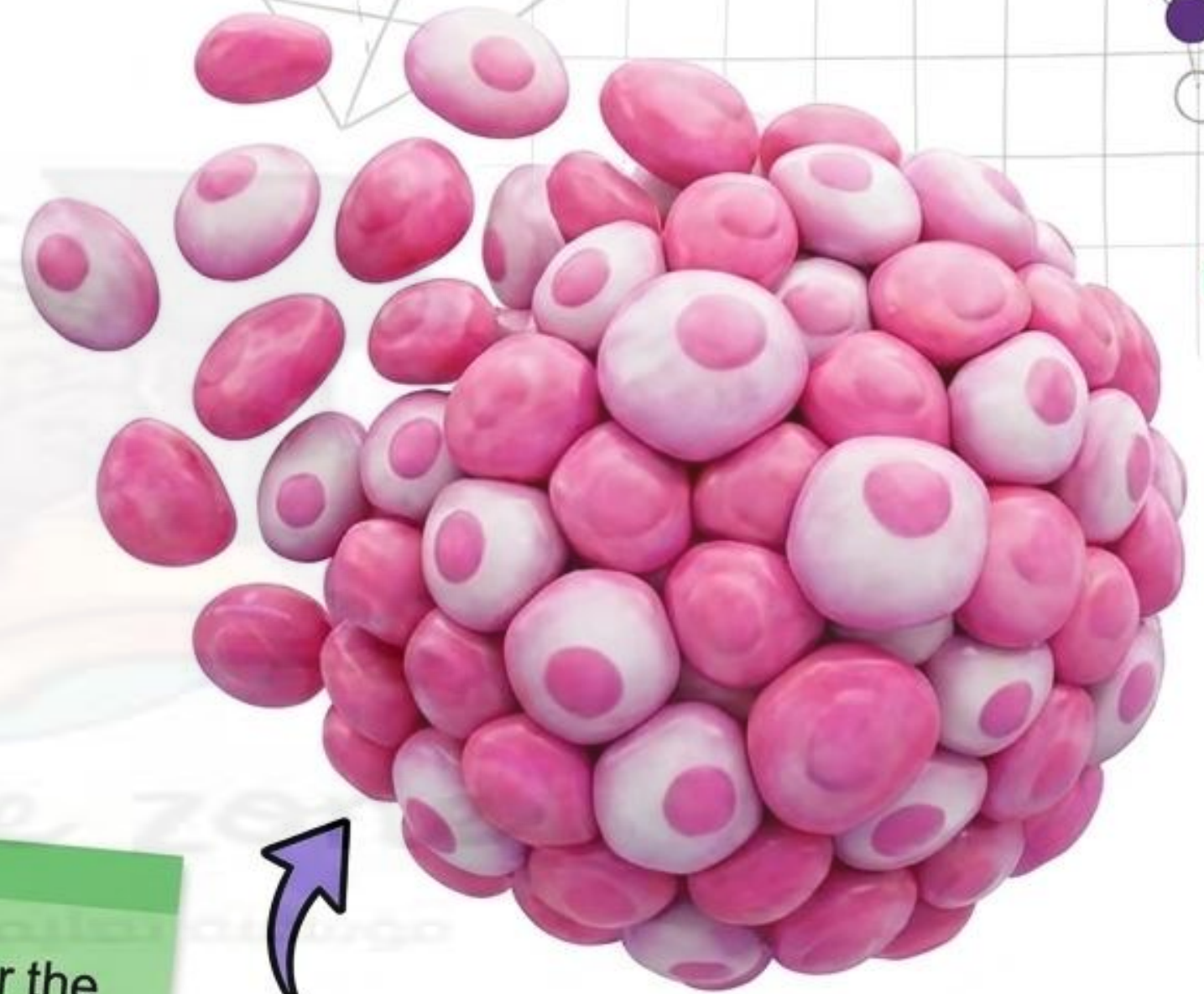


Think About It!

If cells are like individual students, what is a tissue?

A whole classroom working on the same project together!

Revealer the aggregation the same tissue together!



These cells are grouped together to form fat—a connective tissue.

The Tissue Team-Up



Human Tissues



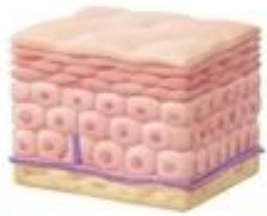
Muscle: Causes movement.



Connective: Structure and support (fat and bone!).



Nervous: Carries messages to/from brain.



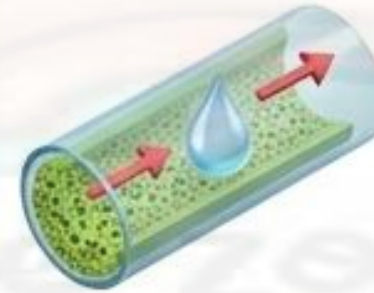
Epithelial: Outer protective layer & lines organs.



Plant Tissues



Dermal: Protection & reduces water loss.



Vascular: Transports water and nutrients.

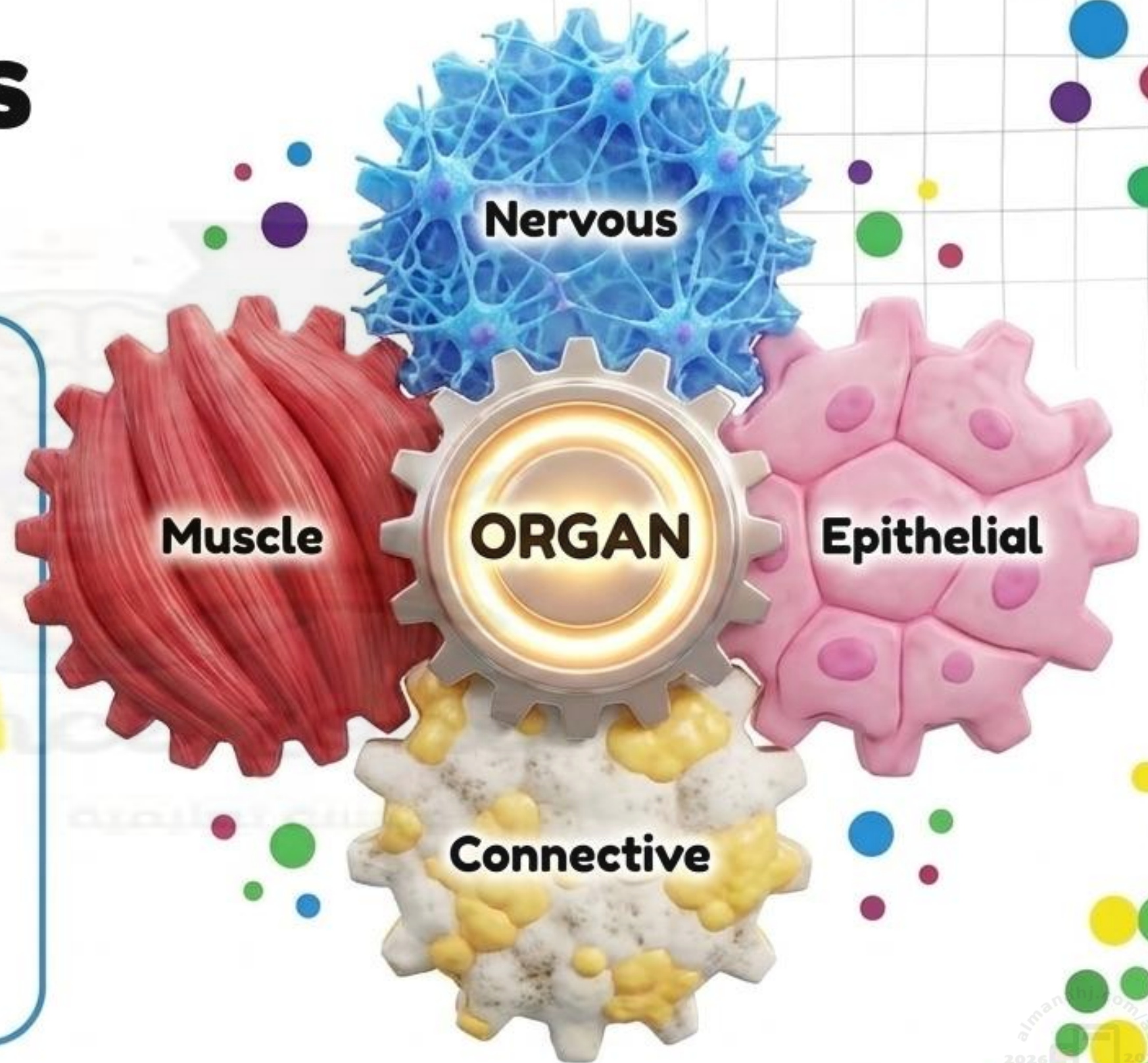


Ground: Storage and photosynthesis.

Level 3: Organs (Teamwork!)

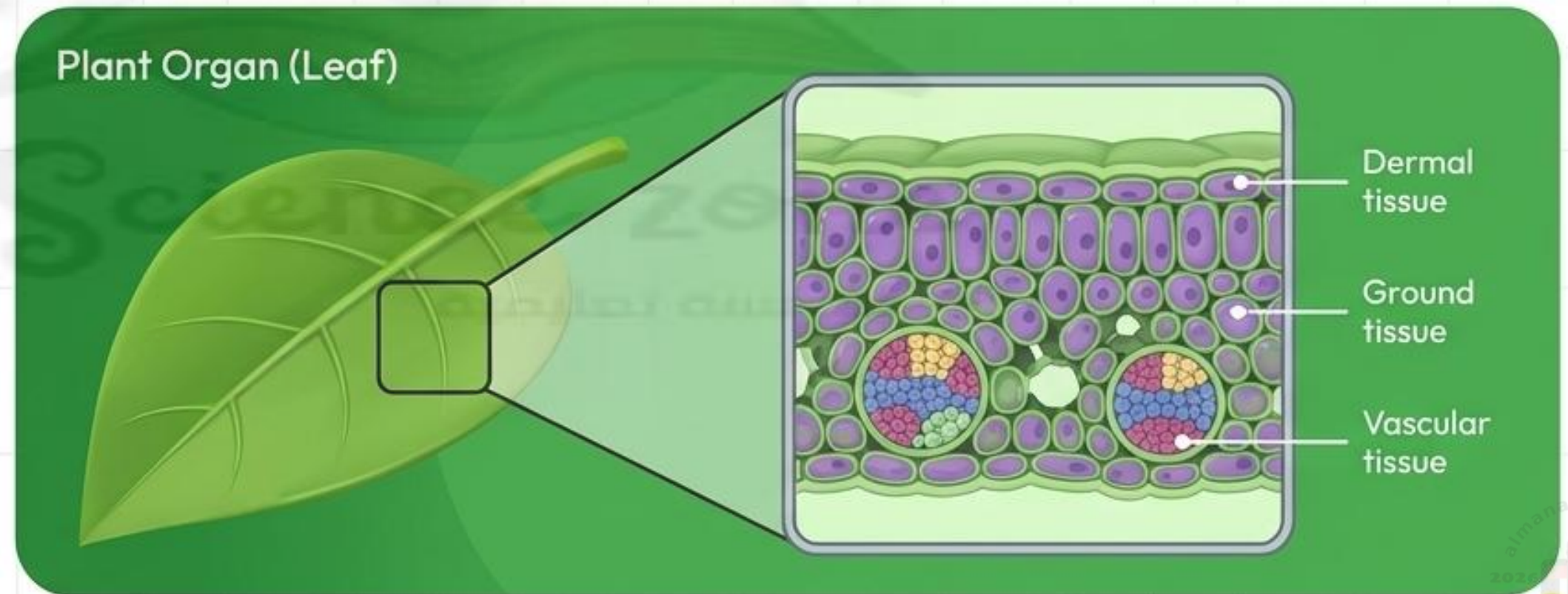
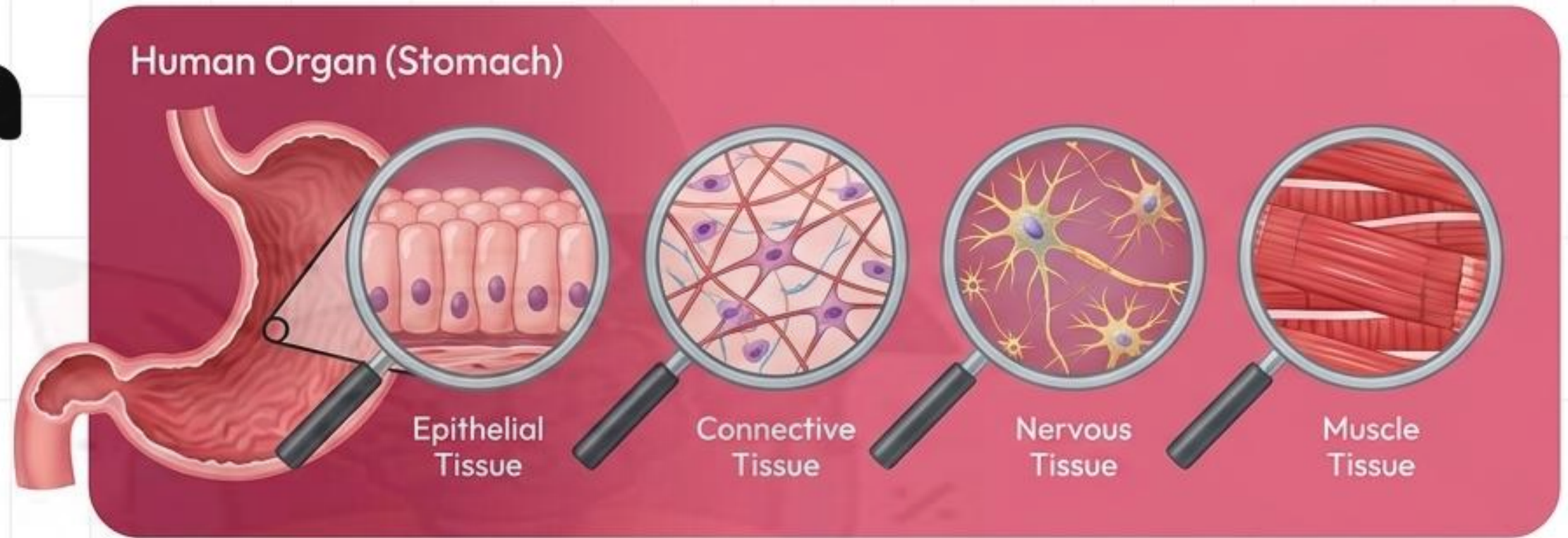
Complex jobs need more than one tissue!

An **Organ** is a group of **different tissues working together** to perform a specific function.



Inside an Organ

A leaf is a vital plant organ specialized for photosynthesis!



Mini-Quiz: The Macaroni Lab!

Setup: If a single piece of macaroni represents a Cell...

What does a group of similar macaroni glued together represent?

 **A Tissue!**

What does a larger shape made of several different macaroni groups connected together represent?

 **An Organ!**

Level 4: Organ Systems

Organs do not function alone. They group into systems to complete a series of tasks!



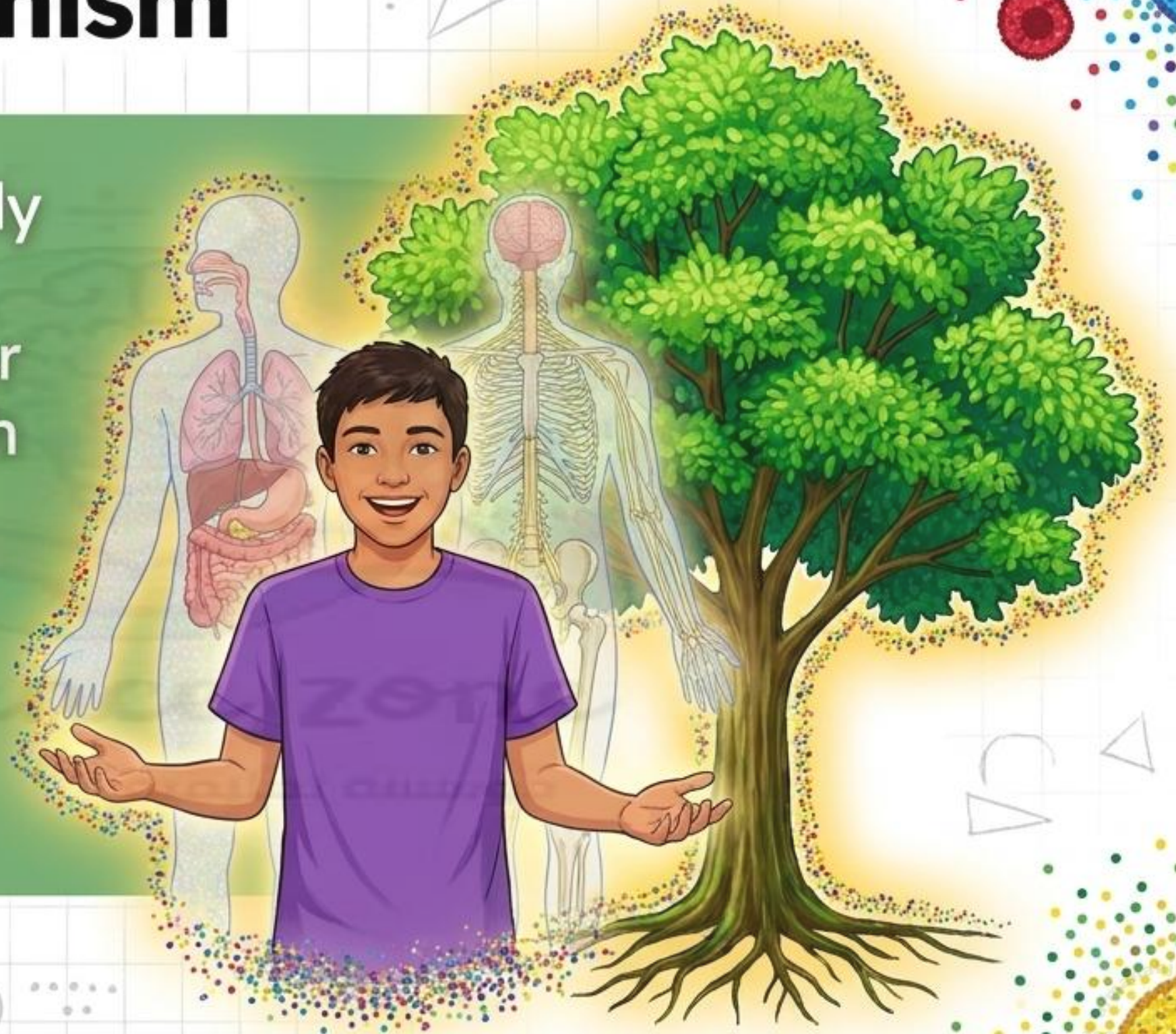
Human Example:
The stomach, liver, and intestines team up to make the Digestive System.

Plant Example:
The Shoot System transports food/water, while the Root System anchors the plant.



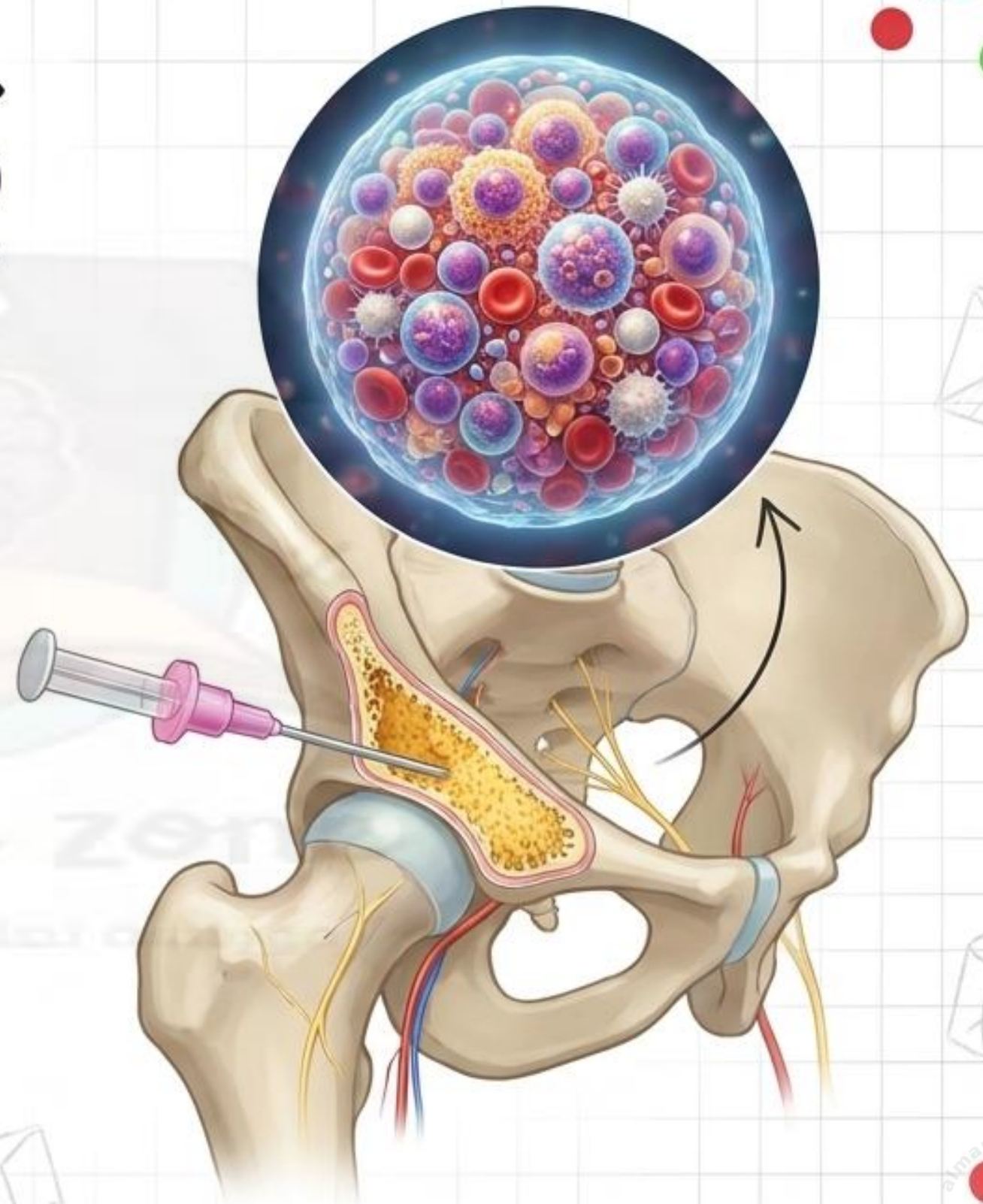
Level 5: The Organism

Multicellular **organisms** usually have many organ systems working perfectly together for survival. Systems rely on each other! For example, the muscle tissue in your stomach cannot survive without oxygen from the respiratory system!



The Problem: Sometimes tissues get sick. Diseases like leukemia affect bone marrow (the connective tissue inside bones that makes blood cells).

The Fix: Bone Marrow Transplants!
Healthy stem cells from a donor can replace malfunctioning bone marrow to start producing healthy blood cells again.



A Closer Look: Organ Donation



The Need: Every 10 minutes, someone is placed on the national transplant waiting list (around 120,000 people total!).

The Solution: People can donate organs to save lives. Because humans have two healthy kidneys, a living donor can give one kidney to a patient in need!

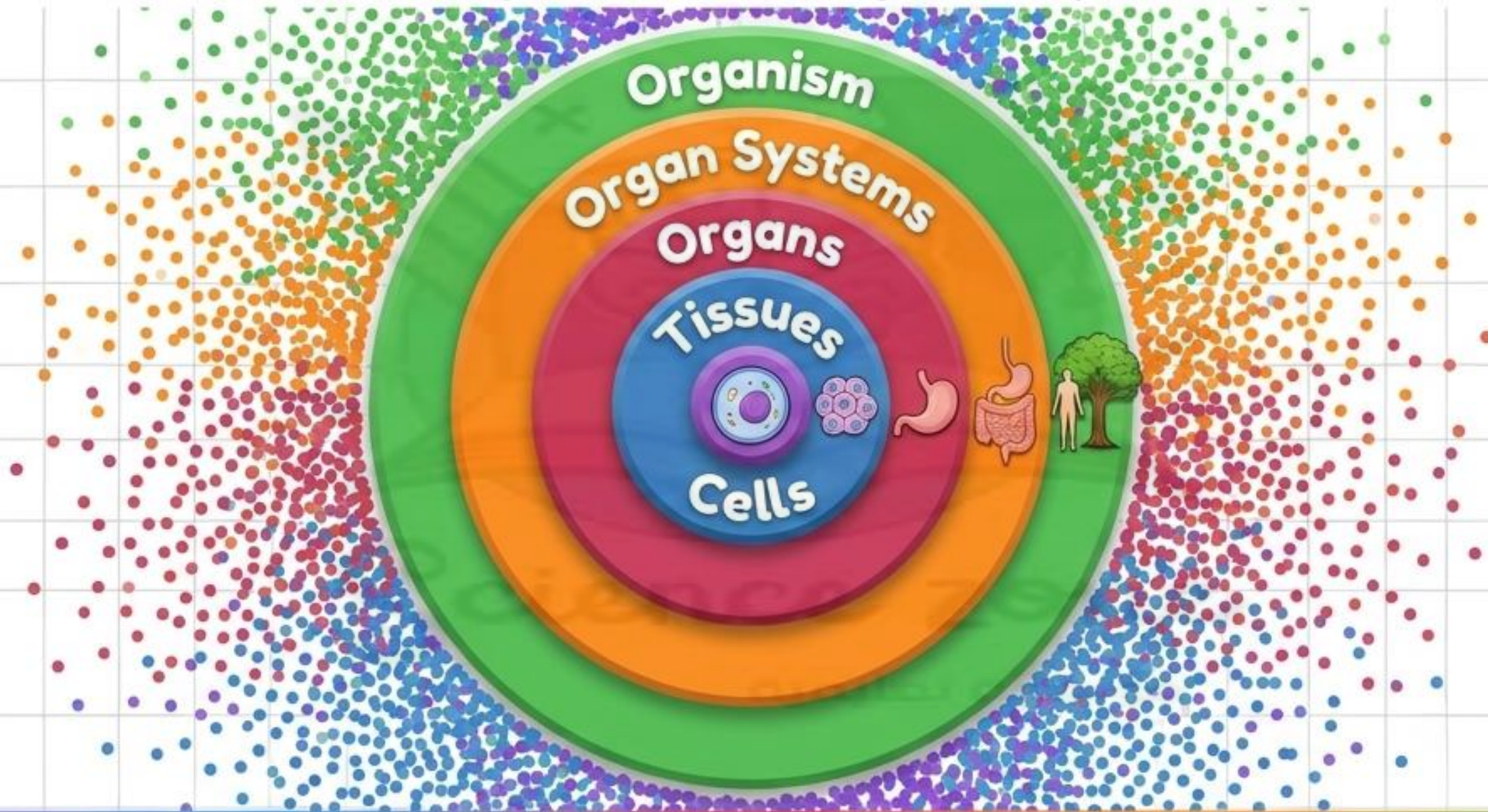
Vocabulary:

Dialysis – A process that artificially removes wastes from blood while a patient waits for a kidney.



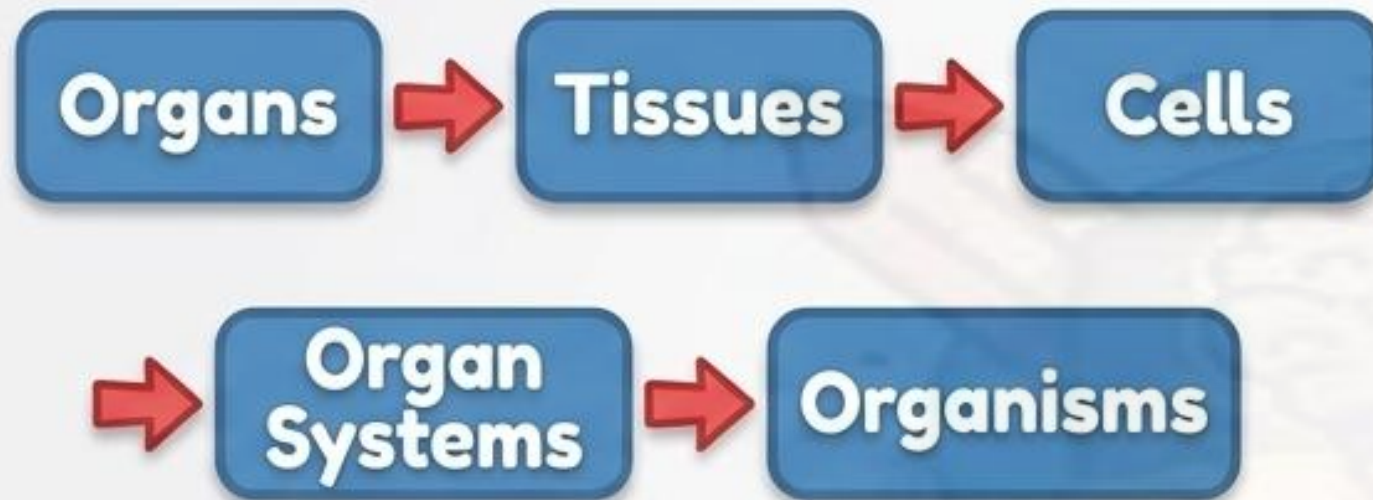
Key Concepts: The Nested Hierarchy

Cells → Tissues → Organs → Organ Systems → Organism



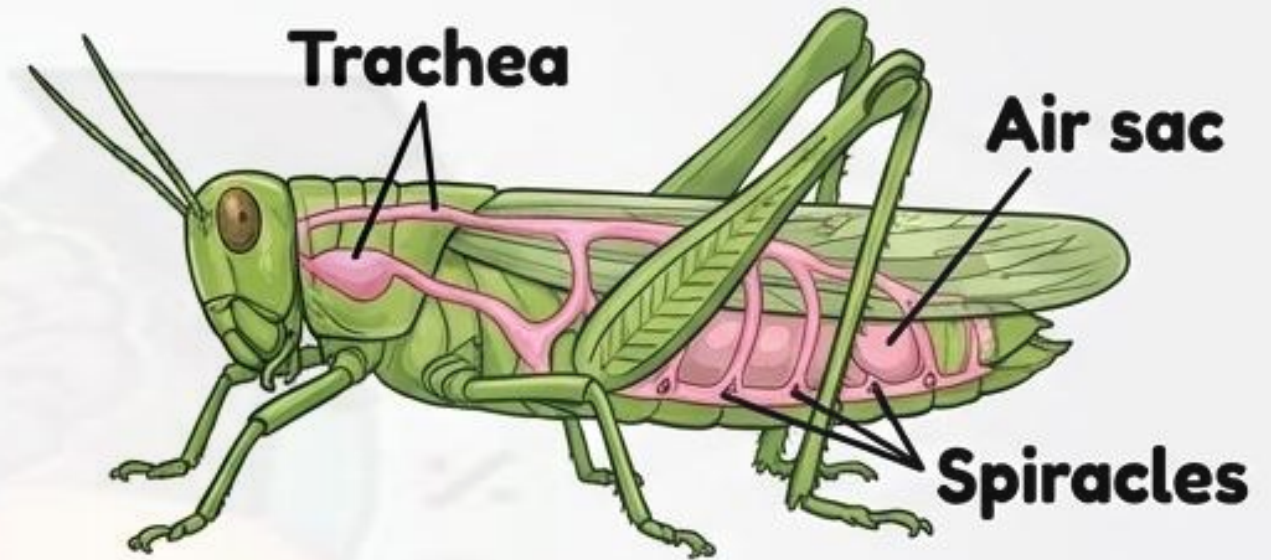
Takeaway: Just like thousands of pointillism dots organize to make a masterpiece painting, tiny cells organize step-by-step to make YOU!

Exit Ticket: Test Your Knowledge!



**Cade made this flowchart.
How should he fix it?**

**Switch Organs and Cells,
and Tissues and Cells!
(Small to Large).**



**Look at the grasshopper's
breathing structures. What
level of organization is this?**

**An Organ System!
(Multiple organs
working together).**



MRs Rania Adel

01128772427