

# GMAS 5th Grade Science Practice Test (Sample)

## Study Guide



**Everything you need from our exam experts!**

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# Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

**Remember:** successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

# How to Use This Guide

**This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:**

## **1. Start with a Diagnostic Review**

**Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.**

## **2. Study in Short, Focused Sessions**

**Break your study time into manageable blocks (e.g. 30 - 45 minutes). Review a handful of questions, reflect on the explanations.**

## **3. Learn from the Explanations**

**After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.**

## **4. Track Your Progress**

**Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.**

## **5. Simulate the Real Exam**

**Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.**

## **6. Repeat and Review**

**Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.**

**There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!**

## Questions

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- 1. Which organelle stores materials inside the cell and is often large in plants?**
  - A. Nucleus**
  - B. Mitochondrion**
  - C. Ribosome**
  - D. Vacuole**
  
- 2. Which two features are present in plant cells but not in animal cells?**
  - A. Nucleus and mitochondria**
  - B. Chloroplasts and mitochondria**
  - C. Cell wall and chloroplast**
  - D. Ribosomes and cytoplasm**
  
- 3. Name Both types of cells.**
  - A. Animal cell and plant cell**
  - B. Nucleus and Cytoplasm**
  - C. Prokaryotic and Eukaryotic**
  - D. Plant cell only**
  
- 4. What is the primary function of roots in a plant?**
  - A. To absorb water and minerals**
  - B. To carry out photosynthesis**
  - C. To produce seeds**
  - D. To absorb carbon dioxide**
  
- 5. Explain how plant cells and animal cells are the same.**
  - A. Nucleus and mitochondria only**
  - B. Chloroplasts and cell wall**
  - C. Nucleus, Cell Membrane, ribosomes, vacuoles, Golgi bodies, mitochondria, cytoplasm**
  - D. DNA is in the nucleus**

- 6. Which of the following is an amphibian?**
- A. Snakes**
  - B. Frogs**
  - C. Turtles**
  - D. Salamanders**
- 7. Which part of a plant is primarily responsible for absorbing water and nutrients from the soil?**
- A. Leaves**
  - B. Stem**
  - C. Bark**
  - D. Roots**
- 8. Insulators are materials in which:**
- A. Particles Do Not Move Easily Through Them**
  - B. They Conduct Electricity Well**
  - C. They Are Magnetic**
  - D. They Are Transparent**
- 9. Which term describes an opening in Earth's surface?**
- A. Volcano**
  - B. Infectious Disease**
  - C. Amoebas**
  - D. Algae**
- 10. Which of the following is a reptile?**
- A. Snakes**
  - B. Dolphins**
  - C. Owls**
  - D. Frogs**

## Answers

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1. D
2. C
3. A
4. A
5. C
6. D
7. D
8. A
9. A
10. A

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## **Explanations**

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**1. Which organelle stores materials inside the cell and is often large in plants?**

- A. Nucleus**
- B. Mitochondrion**
- C. Ribosome**
- D. Vacuole**

The main idea here is where a cell stores materials. The vacuole acts like a storage sac inside the cell, holding water, nutrients, and waste. In plant cells, the central vacuole is often very large, sometimes taking up most of the cell's interior. This large vacuole helps maintain turgor pressure, pushing the cell membrane against the cell wall to keep the plant upright. Other organelles have different roles—the nucleus stores genetic material, mitochondria release energy, and ribosomes build proteins—so they aren't primarily about storing materials inside the cell.

**2. Which two features are present in plant cells but not in animal cells?**

- A. Nucleus and mitochondria**
- B. Chloroplasts and mitochondria**
- C. Cell wall and chloroplast**
- D. Ribosomes and cytoplasm**

Plant cells have two features that animals don't: a cell wall and chloroplasts. The cell wall gives plants a rigid shape and extra protection, something animal cells don't have because animals don't need that rigid support. Chloroplasts are the sites of photosynthesis, converting light into sugar, and they contain the pigment chlorophyll; because animals don't perform photosynthesis, they don't have chloroplasts. Other common cell parts like the nucleus, mitochondria, ribosomes, and cytoplasm are found in both plant and animal cells, so they don't distinguish between the two. Therefore, the features unique to plant cells are the cell wall and chloroplasts.

**3. Name Both types of cells.**

- A. Animal cell and plant cell**
- B. Nucleus and Cytoplasm**
- C. Prokaryotic and Eukaryotic**
- D. Plant cell only**

The two types of cells you're usually taught first are plant cells and animal cells. Both are eukaryotic, meaning they have a nucleus and other membrane-bound compartments. Plant cells share features like a cell wall and chloroplasts, which help them stay rigid and carry out photosynthesis, while animal cells lack those structures. That combination—two distinct, commonly studied cell types made from similar internal machinery but with key differences—fits the question best. The other choices point to parts of a cell (nucleus, cytoplasm), or to broad categories of cells (prokaryotic vs. eukaryotic), or to only one type, which aren't the two cell types being asked for.

#### 4. What is the primary function of roots in a plant?

- A. To absorb water and minerals**
- B. To carry out photosynthesis**
- C. To produce seeds**
- D. To absorb carbon dioxide**

The main idea here is that roots primarily absorb water and minerals from the soil. Water taken up by the roots is essential for keeping the plant turgid and for driving many processes, including photosynthesis in the leaves. Minerals dissolved in that water, like nitrogen, potassium, and phosphorus, provide nutrients the plant needs to grow and stay healthy. Root hairs on young roots increase the surface area to maximize absorption, and the water and minerals travel upward through the plant's vascular system to the leaves where photosynthesis occurs. Roots also help anchor the plant, but the job most closely tied to their function is taking in water and minerals. Photosynthesis happens mainly in the leaves, not the roots, and carbon dioxide is absorbed through the stomata in leaves, while seeds are produced by flowers and fruits.

#### 5. Explain how plant cells and animal cells are the same.

- A. Nucleus and mitochondria only**
- B. Chloroplasts and cell wall**
- C. Nucleus, Cell Membrane, ribosomes, vacuoles, Golgi bodies, mitochondria, cytoplasm**
- D. DNA is in the nucleus**

Both plant and animal cells share many of the same structures because they are both eukaryotic cells that carry out similar life-sustaining functions. They have a nucleus that houses their DNA and acts as the control center, a cell membrane that forms the boundary and regulates what enters and leaves, ribosomes that build proteins, cytoplasm where many chemical reactions occur, mitochondria that supply energy, Golgi bodies that modify and ship cellular products, and vacuoles for storage. This combination shows the common features that support life in both cell types. While plant cells also have chloroplasts for photosynthesis and a rigid cell wall, those parts aren't present in animal cells, so the set of shared parts listed here best captures what plant and animal cells have in common.

#### 6. Which of the following is an amphibian?

- A. Snakes**
- B. Frogs**
- C. Turtles**
- D. Salamanders**

Amphibians spend part of their life in water and part on land, usually starting life in water with gills before many become air-breathing as adults. They also have moist, permeable skin that helps them take in oxygen. Salamanders are a clear example of this group: they often hatch in water and later live on land, staying tied to damp environments. Snakes and turtles are reptiles with dry, scaly skin and different life cycles, so they're not amphibians. Frogs are also amphibians, so there are multiple familiar animals that fit this category.

**7. Which part of a plant is primarily responsible for absorbing water and nutrients from the soil?**

- A. Leaves**
- B. Stem**
- C. Bark**
- D. Roots**

Absorbing water and minerals from the soil is done by the roots. Tiny root hairs on the roots increase the surface area, so more water and nutrients can enter from the soil. Water moves into root cells by osmosis, minerals are taken in through transport proteins, and then the water and nutrients travel upward through the plant. The stem mainly helps move things around, and the leaves use water for photosynthesis, while bark is just a protective outer layer. So the part that does the absorbing is the roots.

**8. Insulators are materials in which:**

- A. Particles Do Not Move Easily Through Them**
- B. They Conduct Electricity Well**
- C. They Are Magnetic**
- D. They Are Transparent**

Insulators resist the flow of electric current because their electrons aren't free to move easily. In these materials, charges stay bound to atoms, so electricity doesn't pass through readily. That's why materials like plastic, rubber, wood, and glass are good insulators. Describing something as a good conductor would be opposite—insulators don't conduct well. Magnetism and transparency aren't defining features of insulators; magnetism is about magnetic forces, and transparency is about light, not electrical resistance.

**9. Which term describes an opening in Earth's surface?**

- A. Volcano**
- B. Infectious Disease**
- C. Amoebas**
- D. Algae**

An opening in Earth's surface is a geological feature where material from inside the planet reaches the outside. The term that describes this is volcano—a vent through which magma can erupt as lava, along with ash and gases, coming up to the surface. This happens when magma collects underground and pressure builds until the surface is breached, often forming a crater. The other options are not openings in the ground: infectious disease is about illness caused by pathogens, while amoebas and algae are living organisms, not openings.

**10. Which of the following is a reptile?**

**A. Snakes**

**B. Dolphins**

**C. Owls**

**D. Frogs**

Reptiles are cold-blooded vertebrates with dry, scaly skin and lungs for breathing. Snakes fit this description because they have scales and rely on air-breathing lungs, marking them as reptiles. Dolphins are mammals (they have hair, nurse their young, and are warm-blooded). Owls are birds (they have feathers and lay eggs). Frogs are amphibians (they have moist skin and usually begin life in water). So snakes are the reptile in the list.

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## Next Steps

**Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.**

**As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.**

**If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at [hello@examzify.com](mailto:hello@examzify.com).**

**Or visit your dedicated course page for more study tools and resources:**

**<https://gmas5thgradescience.examzify.com>**

**We wish you the very best on your exam journey. You've got this!**