Inside the Body

Locate organs by cavity and body system

HAP.1.2 "Locate organs and their applicable body cavities and systems."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline the organ names linked to body systems, circle the named body cavities, and write each organ's system above its underlined name.

A Tour of Protected Spaces

1 During a hospital tour, a guide asks visitors to imagine the body as a set of protected spaces. The skull encloses the cranial cavity, and the backbone surrounds the vertebral cavity. Together, these spaces protect major parts of the nervous system. The brain, protected by the skull, processes information from the senses and helps direct movement. The spinal cord runs through the backbone and carries signals between the brain and the rest of the body. A headache and a back injury might lead a clinician to check different spaces, even though both involve the same organ system.

2 Next, the guide points to the chest. The diaphragm, a broad muscle beneath the lungs, separates the thoracic cavity from the abdominal cavity below it. In the thoracic cavity, the lungs bring oxygen into the body and remove carbon dioxide as part of the respiratory system. The heart, also in this cavity, pumps blood through the cardiovascular system. Sharing a cavity does not mean sharing a system: a breathing problem may call attention to the lungs, while an irregular heartbeat may call attention to the heart. The organs sit near one another, but they have different jobs.

3 Below the diaphragm, the abdominal cavity holds the stomach, which begins breaking down food, and the small intestine, where most nutrient absorption occurs. Both belong to the digestive system. The kidneys also lie in the abdominal region, behind the lining of the abdominal cavity. They filter blood and make urine as part of the urinary system. Lower down, the pelvic cavity holds the urinary bladder, which stores urine before it leaves the body. The kidneys and bladder work in the same system but occupy different locations. To locate an organ well, name both its space and its system.

2 ANSWER WITH EVIDENCE

Use the passage

1. A clinician checks the brain. Which body cavity protects it, and which system does it belong to?

2. Which cavity contains the lungs, and which system do they belong to?

3. Name the stomach's body cavity and system.

4. A clinician checks the urinary bladder. Which cavity contains it, and which system does it belong to?

3 YOUR TURN

Your own words

Create a two-stop tour using two of these organs: heart, small intestine, spinal cord. For each stop, name the organ's cavity and system, then explain what the organ does.

Inside the Body

PART 1 · READ AND MARK

Underline the organ names linked to body systems, circle the named body cavities, and write each organ's system above its underlined name. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	A clinician checks the brain. Which body cavity protects it, and which system does it belong to?	**The cranial cavity protects the brain. It belongs to the nervous system.**
2	Which cavity contains the lungs, and which system do they belong to?	**The lungs are in the thoracic cavity and belong to the respiratory system.**
3	Name the stomach's body cavity and system.	**The stomach is in the abdominal cavity and belongs to the digestive system.**
4	A clinician checks the urinary bladder. Which cavity contains it, and which system does it belong to?	**The urinary bladder is in the pelvic cavity and belongs to the urinary system.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

My first stop is the heart in the thoracic cavity. It belongs to the cardiovascular system and pumps blood. My second stop is the small intestine in the abdominal cavity. It belongs to the digestive system and absorbs most nutrients.

Accept any two listed organs if each has the correct cavity, system, and function. Spinal cord: vertebral cavity, nervous system, carries signals between the brain and the rest of the body.