

SUBJECT: SCIENCE

Contents:

Unit 6. Sound and space

- ✓ 6.5. Tectonics (p.233-240)

Unit 7. Genes and inheritance

- ✓ 7.1. Chromosomes, genes and DNA (p.243-246)
- ✓ 7.2. Gametes and inheritance (p.247-252)
- ✓ 7.3. Variation (p.253-260)

Instructions: Students **MUST** complete the study guide before revision classes.

PART 1. SCIENTIFIC TERMS

NO.	TERMS	UNITS	DEFINITIONS	VIETNAMESE TRANSLATIONS
1	tectonic plate	6.5		
2	fluid mantle	6.5		
3	convection	6.5		
4	convection current	6.5		
5	jigsaw	6.5		
6	continental coast	6.5		
7	fossil	6.5		
8	fossil record	6.5		
9	alignment	6.5		
10	magnetic	6.5		
11	chromosome	7.1		

12	nuclei	7.1		
13	cell	7.1		
14	gene	7.1		
15	DNA	7.1		
16	gamete	7.2		
17	sperm cell	7.2		
18	egg cell	7.2		
19	nucleus	7.2		
20	fertilization	7.2		
21	zygote	7.2		
22	sex chromosome	7.2		
23	X chromosome	7.2		
24	Y chromosome	7.2		
25	variation	7.3		
26	genetic differences	7.3		

PART 2. Answer the following questions.

1. Describe what makes convection currents in the Earth's mantle.

2. The continents of Earth appear to fit together like a jigsaw. Explain how this provides evidence for tectonic plates.

3. Describe how each of these provides evidence for tectonic plates:

a. the shapes of the present-day continents

b. the fossil record

c. the alignment of magnetic materials in rocks

4. How are the chromosomes numbered according to scientists?

5. Write the number of chromosomes of:

a. human cells _____

b. fruit fly cells _____

c. mango tree cells _____

6. Explain why people have different eye colors.

7. Compare three main differences between sperm cells and egg cells.

	Sperm cells	Egg cells
Type of gamete		
Sex chromosome		
Size		
Movement		

8. Who can determine the baby's sex, its father or mother? Why?

9. Determine the factors that affect

a. a goal's coat color _____

b. a goal's size _____

10. Arun investigated variation in bean pods. He picked 20 bean pods randomly and counted the number of beans in each pod. These are the results that he wrote down.

7, 3, 8, 6, 3, 4, 7, 5, 5, 8, 6, 4, 6, 7, 5, 5, 6, 5, 4, 8

a. Copy this results table. Use Arun's results to complete it.

Number of beans in a pod						
Tally						
Number of pods						

b. What is the most common number of beans in a pod?

c. Calculate the average number of beans in a pod.
