

**Bangladesh International School, English Section Riyadh**

**BIOLOGY**

**Grade –6**

**Chp -6 Variation and Inheritance**

**L-2 Why do organisms vary?**

**Q1. Define variation.**

Ans. The differences we find between members of the same species is called variation.

**Q2. Write the differences between the two different types of variation.**

Ans. There are two types of variation.

1. Continuous variation

2. Discontinuous variation

- Continuous variation : It is controlled by several pairs of genes. It is influenced by environment such as nutrition and life style.

Example: Height, weight and foot length.

- Discontinuous variation: this variation is controlled by a very small number of genes. It cannot be influenced by the environment.

Example: Blood group in human, attachment of earlobes, gender (male, female), eye color etc.

### **Q3. What are the causes of variation?**

Ans. Variation depends partly in genetic factors and partly on environmental factors. Some characteristics we got from our parents, we inherit them. This is called genetic factor.

Some characteristics we get due to nutrition, life style or exposure to sun (for plants), this is called environmental factor.

### **Q4. What is the normal distribution?**

Ans. The characteristics can vary in tiny amounts between individuals, this type is called continuous variation. For example if we measured the height of all pupils in the class, some would be shorter, some tall and some in between. If we draw a graph of this variation

then the bell shape pattern will come which is called normal distribution.

**Q5. Which type of breeding is called selective breeding?**

Ans. Selective breeding is the process of choosing only some animals to breed from a group.

**Q6. What is natural selection?**

Ans. When nature or the external environment select the best adapted organisms, it is called natural selection.

**Q7. What does the cross breeding mean?**

Ans. Cross breeding is when two organisms of different species bred with desirable characteristics.

**Q8. Fill in the blanks.**

1. Closely related species have similar **characteristics**.
2. Genes are small sections of **DNA**.
3. **Selective** breeding is also important in farming.
4. Variation can be caused by **environmental** and genetic factors.
5. **Cross breeding** is when two different species are bred together.