

## **4A Class Assembly (2/1) Biology**

N-Narrator

T-Teacher

BRU-Bruno

BRI-Brian

ACS- Animal Cell Sample    PCS-Plant Cell Sample

A- Aladdin

N: Before the Biology Lesson, Brian and Bruno try to prepare for the lesson and study the Section of the Cell first.

Bri: Hey Bruno, do you know what cell is?

Bru: Of course, is this?! ( take out the cell picture)

Bri: Are you kidding me?

N: Suddenly, Aladdin appears.

Bri: Oh... who are you?

A: I am Aladdin! I am here to tell you the truth of the cells.

Bru: so....what is cell?

A: It is the basic unit of life. It can be divided into animal cell and plant cell. Let me show you two samples.

N: Aladdin uses her magic power to lay out two samples.

A: Do you know the common structure of them?

Bru: Oh yes! I know they are nucleus(細胞核), cytoplasm(細胞), cell

membrane(細胞膜), endoplasmic reticulum(內質網) and

mitochondrion(線粒體) but I don't know the functions of them

Bri: I know the function of nucleus, cell membrane and cytoplasm. First, nucleus controls all activities of the cell. Second, cell membrane controls the movement of substances into and out of cells. Third, cytoplasm provides a place for chemical reactions to take place inside the cell. But I am not sure about the rest of the functions.

ACS & PCS: Let's tell you the other functions of us.

ACS: Firstly, endoplasmic reticulum has two types and its short form is ER. One is smooth and the other is rough. Smooth ER function are combine and transport lipid(脂肪). Rough function is to combine the protein(蛋白質).

PCS: And the mitochondrion is giving a site of energy release during respiration(呼吸作用)

Bru: Oh, I see. In addition, what are the differences between you?

A : First of all, they have three differences. Firstly, plant cells have cell wall but animal cells do not.

PCS:Secondly, animal cells do not have chloroplasts and some of plant cells have it. Thirdly, plant cells have a large vacuole at the centre but animal cells have small vacuole or no vacuole. So, the nucleus of animal cell is always at the centre of the cell and plant cell nucleus locates to the side of the cell.

Bri: Oh thank you for your help Aladdin. We will be able to answer all the questions during the lesson.

Bru: Oh, Brian, I get a bad news for you.

Bri: what is it?

Bru: we are not going to have any Biology lesson this week!