

Subject-specific Sessions for Textbook Publishers Science (S1-3)

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Science learning contents in textbooks

- Give clear illustration of different science concepts, e.g.
 - Accuracy and Precision
 - Error and mistake
 - Electronic balance is not always giving accurate and precise measurements
 - The measurements using pH meter are not always accurate if no calibration is done
- Avoid using inappropriate examples, such as
 - examples involving the rotational motion for introducing “Force and Motion” - movement of a soccer ball
 - complicated examples to introduce frictional force, e.g. Forces on a moving car

Science learning contents in textbooks (Cont')

- Ensure good presentation of pictorial examples, e.g.
 - Pictures showing how potential energy is changed when an object is lifted
 - Photos illustrating clearly how living organisms could adapt to the habitats
 - Pictures showing clearly the difference in weight of an object on the earth and the moon while the mass of the object being the same
- Use sub-microscopic and macroscopic representations collectively for illustrating the physical phenomenon and chemical events, e.g.
 - The concepts of atmospheric pressures
 - Dissolving
 - Change in Pressure
 - Filtration
 - Condensation and evaporation

Science learning contents in textbooks (Cont')

Ensure the science concepts are delivered in a logical and concise way, e.g.

- Biodiversity could be expressed in the view of
 - Maximum number of species in the environment
 - Maximum number in the population of a species

Provide some basic concepts of conservation of biodiversity (e.g. maintain a larger number of species and a higher population of a species in the environment)

Science learning contents in textbooks (Cont')

Ensure the science concepts are delivered in a logical and concise way, e.g.

Provide some authentic examples of biodiversity conservation such as

1. Factors affecting the number of species in the environment (e.g. effects of the removal / introduction of a species in the food chain / food web)
2. Factors affecting the population of a species (e.g. predators, competitors, diseases, excessive rain / drought, climate changes because of global warming etc.)

E-textbook for Science (S1-3)

- Interactive e-tasks, e.g.
 - Data-driven virtual experiment
 - Video-based questions
 - Drag-and-drop tasks
 - On-screen graphical and mathematical treatment
 - Problem-solving and Inquiry based Tasks

END