#### CS1 Unit 1 Japanese Scientist 1 Hideki Yukawa (p. 6)

- Asking the meaning of a word or phrase you don't know
  - Explaining the meaning of a word or phrase in English
    - A: What does the {word | phrase} X mean?
    - B: The {word | phrase} X means ....

A: Can you tell me what the {word | phrase} X means?B: Yes. The {word | phrase} X means ....

A: I don' know what the {word | phrase} X means.

- B: Shall I tell you what it means?
- A: Yes, please.

B: The {word | phrase} X means ....

degree	elementary particles	intellectual	manifesto
neutron	Nobel Prize	nuclear disarmament	physics
proton	specialize in		

- 1. a title or qualification that students get when they finish all their necessary university courses
- 2. to become an expert in a particular area of study
- 3. the scientific study of matter and energy and the relationships between them
- 4. any of the different types of pieces of matter that make up atoms
- 5. a very small piece of matter in the nucleus of an atom that has a positive electric charge
- 6. a very small piece of matter in the nucleus of an atom that has no electric charge
- 7. an international prize given every year for excellent work in physics, chemistry, economics, and so on
- 8. a written document in which a group of people say what they believe in and what they want to do
- 9. a country's act of reducing the number of nuclear weapons it has
- 10. a well-educated person who is interested in serious topics such as science and literature

# [pair work]

A: Read a sentence. Use the correct verb form.

- B: Choose yes/no or a wh-word.
- A: Ask a yes/no question if B chose yes/no. Ask a wh-question if B chose a wh-word.
- Change roles and go to the next sentence.

# 1. Hideki Yukawa (be) born in Tokyo in 1907.

 $\rightarrow$  yes/no, where, when

2. Hideki Yukawa (grow) up in Kyoto.

 $\rightarrow$  yes/no, where

3. Hideki Yukawa (take) a degree from Kyoto Imperial University in 1929.

 $\rightarrow$  yes/no, what, which university, when

4. Hideki Yukawa (specialize) in theoretical physics. (in the past)

 $\rightarrow$  yes/no, what

- 5. <u>Hideki Yukawa's theory</u> (explain) <u>the interaction between protons and neutrons</u>. (in the present)  $\rightarrow$  yes/no, whose theory, what
- 6. <u>Hideki Yukawa's theory</u> (influence) research into elementary particles. (in the present perfect)
  - $\rightarrow$  yes/no, whose theory, what

#### [pair work]

A: Ask a yes/no question or a wh-question.

B: Answer the question with SA + FU.

Change roles and go to the next sentence. To add an FU, you might need to go back to the textbook.

### Example

sentence: Hideki Yukawa studied the theory of elementary particles.

A: What did Hideki Yukawa study?

- B: [SA] The theory of elementary particles. [FU] He received the Nobel Prize in Physics in 1949.
- 8. Hideki Yukawa published <u>his theory of mesons in 1935</u>.  $\rightarrow$  yes/no, what, when
- 9. Hideki Yukawa became a professor in Kyoto University in 1940. → yes/no, what, when
- 10. <u>Hideki Yukawa</u> received <u>the Nobel Prize in Physics in 1949</u>. → yes/no, who, what, when
- 11. <u>Hideki Yukawa</u> joined other scientists in signing the Russell–Einstein Manifesto. → yes/no, who
- 12. Hideki Yukawa signed the Russell-Einstein Manifesto in 1955. → yes/no, what, when
- 13. The Russell–Einstein Manifesto called for <u>nuclear disarmament</u>.  $\rightarrow$  yes/no, what
- 14. Hideki Yukawa died <u>at his home in Kyoto in 1981</u>.  $\rightarrow$  yes/no, where, when