

Correction – SCIENCE AND MISCONCEPTIONS

Class 3: SCIENCE AND MISCONCEPTIONS

1. Brainstorming: What are a stereotype and a misconception?

1. Students' answers

2. + definition of "stereotype" from the Oxford Learner's Dictionary
"a fixed idea or image that many people have of a particular type of person or thing, but which is often not true in reality and may cause hurt and offence."

3. + definition of "misconception" from the Oxford Learner's Dictionary
a belief or an idea that is not based on correct information, or that is not understood by people.

2. What are the clichés scientists may suffer of?

List the students' answers

3. Lesson

- It is commonly believed that...
- It is wrongly said that...
- are/is said to...
- ...are/is believed to...
- whereas
- while
- although, even though
- despite
- People may / might ...

4. Writing. Make one sentence opposing clichés and reality by using words from #3

Example: French people are said to be rude but tourists usually change their minds after spending time in the country.

Your sentence: students' answers. Write down examples of the board

5. Video. Big Bang Theory « pictionary, boys vs girls »

<https://www.youtube.com/watch?v=C8IMW0MODFs&t=149s>

Watch the video and list:

The clichés you see	The clichés you hear

6. Vocabulary. Find the English equivalents in the video.

1. Être déçu.e	to be disappointed	2. un exploit, une réalisation	an accomplishment
3. à peine, guère	hardly	4. un désavantage évident	a decided disadvantage
5. du plasma quarks–gluons	quark-gluon plasma	6. Asymptotiquement	asymptotically
7. basé.e sur l’observation	observational	8. une réfutation	rebuttal
9. évident.e	obvious	10. nourrir à la petite cuillère	to spoon-feed
11. du vernis à ongles	nail polish	12. polonais.e	Polish
13. partager les torts	to share blame		

7. Facts and myths

- a. Can you think of any examples of misconception in science?

Describe the past or current misconception in one sentence, and then write a small paragraph explaining the mistake.

Example #1:

→ Spinach is said to contain a lot of iron.

→ The iron content of spinach was miscalculated by a German chemist when he misplaced a decimal point. While there are just 3.5 milligrams of iron in a hundred-gram serving of spinach, the accepted number became 35 milligrams because of his mistake.

<https://www.youtube.com/watch?v=z5l864W4wrk> (Popeye's son eating spinach 25 sec)

Example #2:

→ People used to think the Earth was flat.

→ Even though Plato wrote about a spherical Earth in the early 4th century BC, the Earth was believed to be flat for a long time afterwards.

Your example #1:

→

→

Your example #2:

→

→

8. Idioms. These idiomatic phrases come from science and technology. Match them to their meanings.

1. to blind someone with science	to confuse people by using technical language that they are not likely to understand
2. It's not rocket science!	it is easy to understand, obvious
3. to recharge one's batteries	to rest or relax in order to get back your energy
4. (at) the cutting edge	(at) the forefront of progress in a particular area
5. Don't push my buttons!	is said to someone who is starting to annoy you
6. light years ahead	you are a long way in front of others in terms of development, success, etc
7. to be on the same wavelength	to have the same ideas and opinions about something
8. to get one's wires crossed	to misunderstand each other, especially when making arrangements
9. a well-oiled machine	something that functions very well
10. an acid test	a rigorous or critical test of something

9. Grammar. Relative clauses with relative adverbs

- a) The laboratory where experiments are conducted must be kept clean all the time.
- b) The time when we should conduct the experiment has not been decided yet.
- c) That Physics studies both universe and human being is the reason why I love it.

Each of the above sentences has a relative clause starting with a relative adverb:

- ⇒ **where** is used to modify a nouns referring to a place
- ⇒ **when** is used to modify the nouns referring to time. **when** follows the time notion such as day, week, month, year
- ⇒ **why** is used to modify the reason

"When" and where can be replaced with an appropriate preposition such as in, at or on... + which

Examples:

1. The time when we make the observations must be long enough.
2. The day when I started my new job was very impressive.
3. 1642 is the year when Isaac Newton was born.
4. The place where we do experiment is called a laboratory.
5. The room where lectures are given is called the lecture hall.

Rewrite these sentences using the structure preposition + which

- 1. The time during which we make the observations must be long enough.**
- 2. The day on which I started my new job was very impressive.**
- 3. 1642 is the year in which Isaac Newton was born.**
- 4. The place in which we do experiment is called a laboratory.**
- 5. The room in which lectures are given is called the lecture hall.**

Do you want to go further? Watch this: Misconceptions About Falling Objects:

<https://www.youtube.com/watch?v=aRhkQTQxm4w>