Back-scratching bovine leads scientists to reassess intelligence of cows

Level 2: Intermediate

> **Article summary:** This article is about Veronika, an extraordinary pet cow from Austria. Veronika learned to use natural tools in different ways to scratch herself when she was uncomfortable. Her behaviour has led scientists to rethink animal intelligence, especially their assumptions about livestock.
>
> **Time:** 60 minutes
>
> **Skills:** Reading, Speaking, Writing
>
> **Language focus:** Parts of speech
>
> **Materials needed:** One copy of the worksheet per student

1. Warmer

a. The purpose of this activity is to encourage students to challenge their assumptions about different types of animals, and pets in particular. Have students work in small groups to discuss the questions. Then invite volunteers to share their answers with the class. To extend, make a list of all of the animals that students say shouldn't be pets. Take a poll to see if everyone agrees. Are there any animals that the class has split decisions on? As a class, make a list of pros and cons to decide whether or not the animal should be a pet.

2. Key words

a. Ask students to work individually or in pairs to complete the definitions and then find the words in the article. Tell students that some words may appear in different form in the article. Allow a few minutes for students to check answers in pairs or groups before checking answers with the whole class.

Key:
1. notable
2. cattle
3. meadow
4. extraordinary
5. udders
6. field trials
7. awkward
8. livestock
9. pattern
10. circumstances
11. work out
12. delicate

b. Ask students to work individually or in pairs to complete the sentences using the words from the previous activity. Encourage students to read complete sentences to you when they give answers, so you can check their pronunciation of the key words. To extend the activity, have students make sentences of their own with the key words.

Key:
1. pattern	7. livestock
2. field trials	8. cattle
3. awkward	9. notable
4. udders	10. circumstances
5. work out	11. meadow
6. delicate	12. extraordinary

3. Comprehension check

a. As an extra activity, play a short video of Veronika scratching her back before students start the comprehension check. Search for the original article on the Guardian website and scroll through to show the class a video of Veronika using the tools. For this activity, students will work individually or in pairs to complete a summary of the article, using the words in the word pool. Tell students to read through the entire summary once to familiarise themselves with the article. Then have them read it again, filling in the gaps as they go. Remind students that there is only one correct word for each gap. After students complete the task, check answers as a class. Have students take turns reading the sentences aloud, including the word in the gap. To extend, have pairs write one or two more sentences to include in the summary. Then have volunteers share their sentences with the class.

Back-scratching bovine leads scientists to reassess intelligence of cows

Level 2: Intermediate

Key:
1. Austria
2. voices
3. scratch
4. biologists
5. trials
6. teeth
7. belly
8. multi-purpose
9. humans
10. intelligence

4. Key language

a. This activity focuses on parts of speech. Remind students of the differences between a *noun* (a person, place, thing or idea), a *verb* (an action word), an *adjective* (a word that describes a person, place, thing or idea) and an *adverb* (a word that describes a verb or an adjective). Read the forms in the table aloud. Check for understanding. Have students work individually to find the corresponding parts of speech in the article. Check answers as a class.

Key:
1. amazed
2. behaviour
3. gently
4. impressive
5. innovate
6. meaningful
7. naturally
8. patience

b. Tell students to use the words from the table to complete the sentences. The order of words matches in a and b, e.g. sentence 1 uses word 1, sentence 2 uses word 2, etc. Have students work in pairs to complete the sentences. Then check answers as a class. To extend, have volunteers share their own sentences with either the noun or adjective forms of the words in the table.

Key:
1. amazement
2. behave
3. gentle
4. impressively
5. innovative
6. mean
7. naturally
8. patient

5. Discussion

a. Students discuss the questions in pairs or groups. Ask them to justify their opinions, referring to their own experiences or beliefs whenever possible. Invite volunteers to share their answers with the class. To extend, ask students to share what they learned from discussing the questions with their classmates.

6. In your own words

a. The purpose of this activity is to encourage students to reflect on what they learned in the article, and to broaden their knowledge of related topics. Remind students that the article talked about people who worked with Veronika in two different contexts – the farmer and family who owned her (and considered her a pet) and the biologists who studied her to better understand animal intelligence. Read the list of animal-related roles aloud and check for understanding. As a class, brainstorm other jobs that work directly or indirectly with animals. Have students choose one role to research. They should prepare a job profile, with answers to all the questions in the worksheet, along with any other relevant or interesting information.

b. Have students share their job profiles with the class. After each student finishes their presentation, call on one student in the class to ask a follow-up question about the job profile.