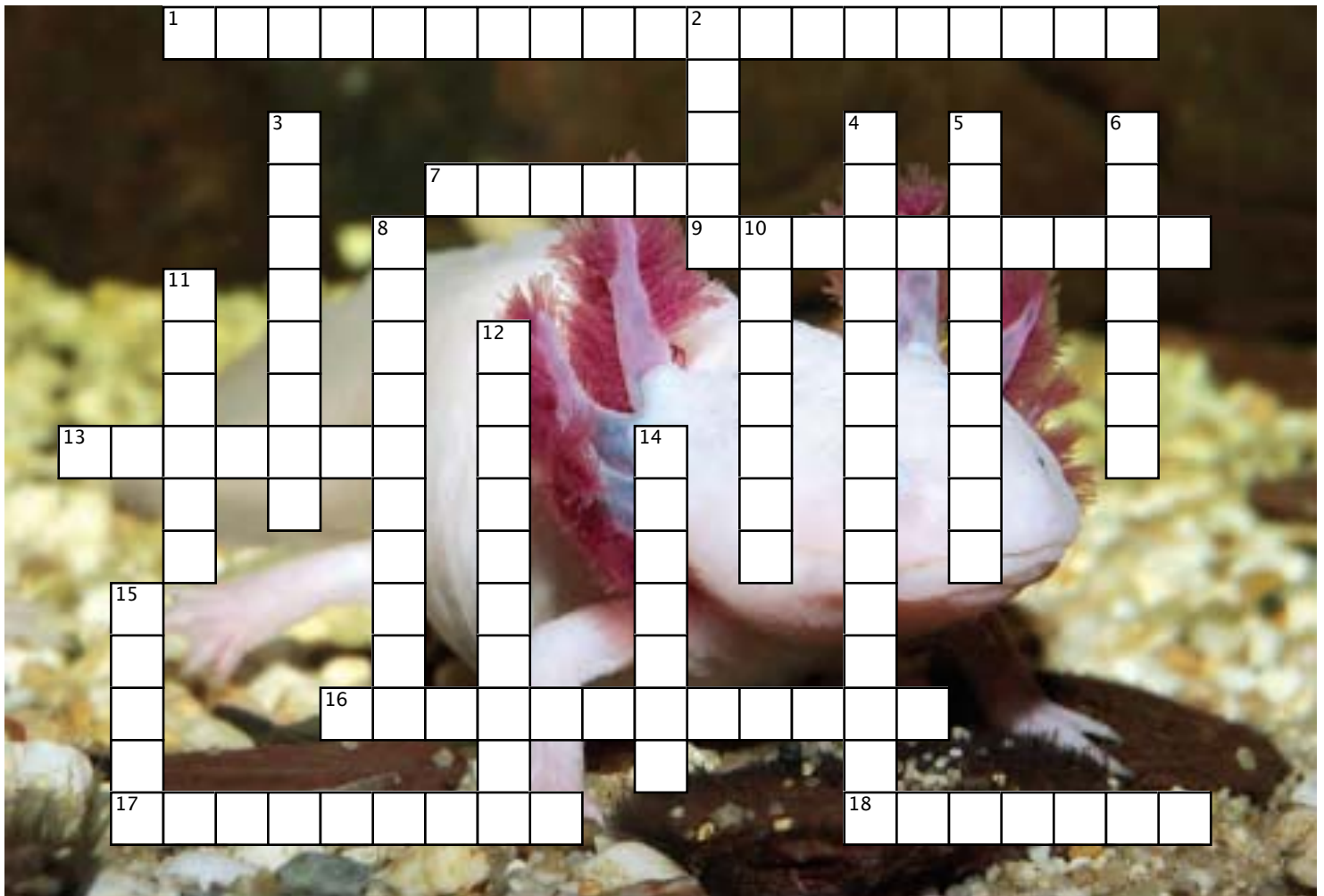


## 1.3 Specialized Plant and Animal Cells

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### Across

1. In 2008, scientists reported that a powder stimulated a human adult fingertip that had been severed to regrow. The powder, made from pigs' bladders, is called an \_\_\_\_\_.
7. There are three types of \_\_\_\_\_ tissue: skeletal, smooth and cardiac.
9. The axoloti, shown in this background photograph, is a type of salamander that has an amazing ability to \_\_\_\_\_ missing limbs.
13. Specialized guard cells form a tiny opening, or pore, called a \_\_\_\_\_, that allows carbon dioxide, water vapour and oxygen to move into or out of a leaf easily.

### Down

2. The human \_\_\_\_\_ is the only human organ that has an ability to naturally regenerate.
3. \_\_\_\_\_ tissue plays an important role in transporting water and nutrients throughout the plant.
4. Cells develop in different ways to perform particular functions in a process called cell \_\_\_\_\_.
5. \_\_\_\_\_ can form specialized cells when exposed to the proper environmental conditions, or they can remain unspecialized and actively dividing for long periods.

## Across

16. Plant \_\_\_\_\_ cells are active throughout the life of a plant, which means that they continually produce new cells of various types.
17. In leaves, photosynthesis and gas exchange occurs in specialized ground tissues called \_\_\_\_\_.
18. \_\_\_\_\_ tissue is made of cells which are capable of creating messages, called impulses, and transmitting them throughout the body.

## Down

6. In the salamander, the process of \_\_\_\_\_ is responsible for regenerating the cells that will eventually specialize and create a newly formed limb.
8. \_\_\_\_\_ tissue forms blood.
10. Most stem cells used for research are taken from \_\_\_\_\_ created by in vitro fertilization.
11. \_\_\_\_\_ transports the sugar produced during photosynthesis from the leaves to other parts of the plant where it is used to provide energy for all cellular processes.
12. \_\_\_\_\_ tissue is made of cells that are tightly packed together to form a protective barrier.
14. Groups of cells that function together to perform specialized tasks are called \_\_\_\_\_.
15. \_\_\_\_\_ is responsible for the movement of water and minerals from the roots up the stem to the leaves where these substances are used in photosynthesis.