

Marine Invertebrates Collection

Activity Book – Intermediate

UC Davis Biodiversity Museum Day 2021

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Shell Dichotomous Key

Scientists often use a tool called a **dichotomous key** to help them identify different species. Below is a picture of several types of shells that you might find along the California coast and a simple dichotomous key. Try selecting one shell at a time and work through the steps below to identify which animal it came from. Start with Step 1a. and answer the question by closely observing the shell, if yes – follow the instruction in that step, if no – go to Step 1b. and continue until you have identified all the shells.



1a. shell has multiple parts connected a hinge on one side – go to 2

1b. single shell – go to 3

2a. shell is shaped like an elongated fan and is dark in color on the outside – it's a mussel shell (bivalve)

2b. shell is rounded and white in color – it's a clam shell (bivalve)

3a. shell is swirled/spiral shaped – go to 4

3b. shell is not spiraled – go to step 5

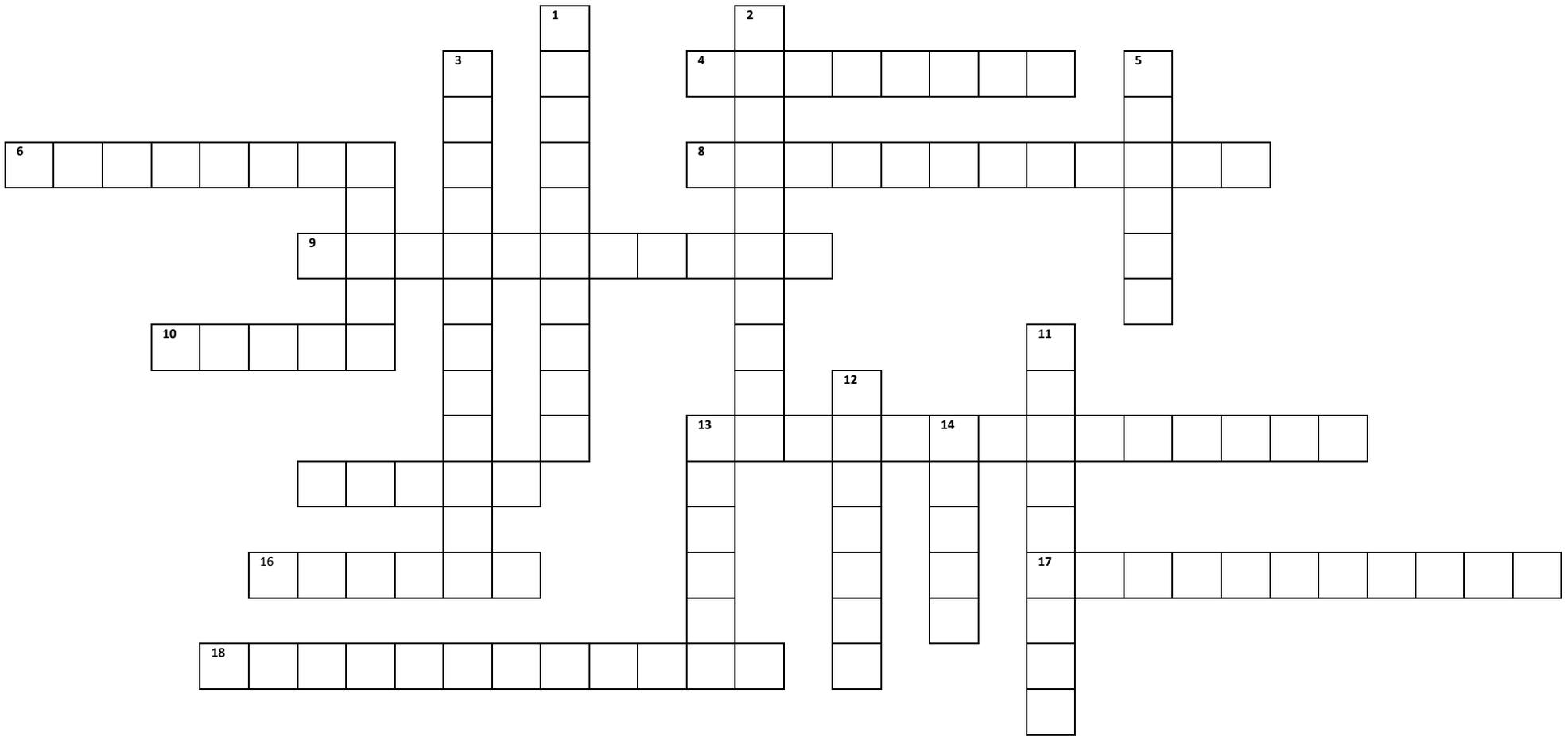
4a. shell is pointed on both ends – it's a whelk shell (gastropod)

4b. shell is pointed on only one end and is dark in color – it's a tegula snail's shell (gastropod)

5a. shell has a single hole at the very top – it's a limpet shell (gastropod)

5b. shell has multiple holes along the edge – it's an abalone shell (gastropod)

Marine Invertebrate Crossword Puzzle



★ Hint: if you're having trouble with any of the clues on the next page, try watching the Marine Invertebrates Collection video

Down:	Across:
1. this animal recycles shells from dead molluscs	4. how sea stars and sea cucumbers move around (2 words)
2. type of sea slug with over 3000 species	6. a group of animals that includes snails, clams and squids
3. an animal without a backbone	8. an animal that eats by straining particles out of the water (2 words)
5. mouthpart of a sea slug	9. an animal that eats decaying matter
7. hermit crabs hide in this to protect themselves from predators	10. _____ reefs
11. squids and jellies use these to catch prey	13. marine algae and plants produce oxygen as a part of this process
12. type of alcohol used to preserve specimens in jars	15. where life on Earth first evolved
13. you need one of these to collect birds and mammals	16. marine algae product
14. Humphrey is a Humboldt _____	17. Biodiversity Museum Day features 12 of these
	18. the variation of life on Earth

Answer Key

The crossword puzzle grid contains the following words:

- 1H** (Down): H E R M I T
- 2N** (Down): N U T
- 3I** (Down): I N V E S T
- 4T** (Across): T U B E F E E T
- 5R** (Down): R A U L A
- 6M** (Across): M O L L U S C S
- 7H** (Down): H
- 8F** (Across): F I L T E R F E E D
- 9D** (Across): D E T R I T I V O R E
- 10C** (Across): C O R A L
- 11T** (Down): T E A
- 12E** (Down): E H A Q U I D
- 13P** (Across): P H O T O S Y N T H E S I S
- 14S** (Down): S Y N T H E S I S
- 15A** (Down): A Q U I D
- 16O** (Across): O X Y G E N
- 17C** (Across): C O L L E C T I O N S
- 18B** (Across): B I O D I V E R S I T Y

