

# Scavenger Hunt Questions Aligned to NGSS

The eight practices of science and engineering that the Framework identifies as essential for all students to learn and describes in detail are listed below. Appropriate grade levels according to NGSS standards posted at end of each of the eight practices: **K 1 2 3 4 5 6 7 8**

1. Asking questions (for science) and defining problems (for engineering) **K 1 2 3 4 5 6 7 8**
2. Developing and using models **K 1 2 3 4 5 6 7**
3. Planning and carrying out investigations **K 1 2 3 4 5 6 7 8**
4. Analyzing and interpreting data **K 1 2 3 4 5 6 7**
5. Using mathematics and computational thinking **2 3 4 5 6 7 8**
6. Constructing explanations (science) and designing solutions (engineering) **1 2 3 4 5 6 7 8**
7. Engaging in argument from evidence **2 3 4 5 6 7 8**
8. Obtaining, evaluating, and communicating information **K 1 2 3 4 5 6 7**

<http://www.nextgenscience.org/sites/ngss/files/Appendix%20F%20%20Science%20and%20Engineering%20Practices%20in%20the%20NGSS%20-%20FINAL%20060513.pdf>

**TEACHERS:** The questions in this Scavenger Hunt are open ended. Your students can use virtually any part of the exhibit that they choose to answer most of these questions. **You** can customize your own scavenger hunt by choosing only the questions that apply to the lessons you are teaching your students: copy a question, and paste it into a document. Two pages of questions should be enough, but who knows your kids better than you do? Remember, we want our kids to explore, engage and think.

Name: \_\_\_\_\_

By putting my initials in this box, I promise that I have done my own work and that I have done the best I can.

**Directions:** Take your time and really look at the exhibits: the animals, the plants and the land. Fill in blanks below based on your observations, you will have to think about the answers and come up with them yourself. The few questions marked with an \* are ones you may need to read a sign to answer. It is best to read through all of the questions on this page before you begin your walk through the exhibition. Be prepared to discuss your experience with your classmates when you are back in your classroom. *Make sure that you have fun and learn a lot!*

1. Describe one of the hands on activities and tell what you learned by using it \_\_\_\_\_  
\_\_\_\_\_
2. Name an animal that is eating and what it is eating \_\_\_\_\_
3. Describe and find the name of an animal that has two or more colors on its body and is hard to find because it blends in with its habitat: \_\_\_\_\_
4. Choose any **animal**, describe its adaptations and tell how the adaptations help it to survive in its habitat \_\_\_\_\_
5. Choose any **plant**, describe its adaptations and tell how the adaptations help it to survive in its habitat \_\_\_\_\_
6. In the patio area, find an animal that you have seen in the area where you live and tell what you observed it doing when you saw it \_\_\_\_\_
7. \* Turn the knob once or twice on the "Where does San Diego's Water Come From?" board.

How much of our clean drinking water comes from local sources? \_\_\_\_\_

How much comes from 700 miles away? \_\_\_\_\_ From 1,000 miles away? \_\_\_\_\_

Why is this a problem? \_\_\_\_\_

\_\_\_\_\_

8. In the patio area, choose the most interesting insect on the patio screen which is the orange, white and aqua wall. A) Write down its name. B) Is it native to southern California? C) Why do you find it interesting? D) Draw and label a picture in the space below to help you remember details about it.

A) \_\_\_\_\_

B) \_\_\_\_\_

C) \_\_\_\_\_

D) Draw

9. In the patio area, A) find and name an animal that has adapted (had to figure out ways) to live with humans because humans moved into its habitat. B) Describe what the animal has done to adapt to the presence of humans in what used to be natural habitat.

A) \_\_\_\_\_

B) \_\_\_\_\_

10. \*In the riparian area with the aquariums, read the sign under the tank with the fish in it.

A) Are these fish native to southern California? \_\_\_\_\_

B) What problem is caused by these fish? \_\_\_\_\_

\_\_\_\_\_

11. In the chaparral area (Story in the round) that describes how wildfires affect southern California, name three different animals and write what each animal does to survive wildfires.

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_

12. What is the most interesting thing you learned by watching the desert at night presentation?

\_\_\_\_\_

13. Why do find it the most interesting thing in the desert at night presentation?

\_\_\_\_\_

14. Name and describe a plant that you are surprised to find in the desert. What adaptations does it have to help it survive the dry heat in the desert? (Look up more information back in your classroom if you need to).

\_\_\_\_\_

\_\_\_\_\_

15. Turn the handle on the model of the mountain and observe what happens to the forest.

\*Describe what has happened to the mountain forests over the past 20,000 years and what has caused it.

\_\_\_\_\_

\_\_\_\_\_

Why is this a problem? \_\_\_\_\_

\_\_\_\_\_

16. Name an animal in a burrow. Why do you think it is in the burrow? \_\_\_\_\_

\_\_\_\_\_

17. Find an animal chasing or eating another animal. Which is the predator and which is the prey?

Predator: \_\_\_\_\_ Prey: \_\_\_\_\_

18. Name and describe something you can climb through \_\_\_\_\_

\_\_\_\_\_

In what habitat is the item you climbed through? \_\_\_\_\_

How does the item benefit animals in the habitat? \_\_\_\_\_

\_\_\_\_\_

20. \*The giant mud core next to the wetlands shows some of the animals that live in the mud in estuaries. In real life, the animals are too tiny for us to see. The mud core shows them at 10 times their actual size. Read the signs on the wall behind the mud core. Choose two animals and describe their “superpowers,” which are really their adaptations.

1) \_\_\_\_\_

2) \_\_\_\_\_

21. \* Name an animal listed as threatened or endangered: \_\_\_\_\_

What is causing it to be in danger of extinction? \_\_\_\_\_

22. Circle the name of your favorite habitat: Wetlands, Torrey Pines, Coastal Sage Scrub (Patio), Riparian (rivers, streams and vernal pools), Mountains or Desert.

A) Describe it (dry, wet, hills and canyons, mountains, snow) \_\_\_\_\_

\_\_\_\_\_

B) What are some of the animals that live in this habitat? \_\_\_\_\_

\_\_\_\_\_

C) What adaptations do the animals have that help them to survive in this habitat? \_\_\_\_\_

\_\_\_\_\_

23. When you are upstairs in the attic, use a phone and choose a person’s story to listen to.

A) Whose story did you listen to? \_\_\_\_\_

B) What do you think was the most interesting part of their story? \_\_\_\_\_

\_\_\_\_\_

24. When you are downstairs in the back room, **examine ....**

25. \* On the Riparian wall, next to the aquariums, what is the most interesting thing you read about? \_\_\_\_\_

Explain why this is interesting to you: \_\_\_\_\_

26. Explore the Chaparral area in the story in the round theater exhibit. Describe the pattern of

wild fire and life renewing itself. \_\_\_\_\_

27. Explore the inside of the silver air stream. What did you find interesting? \_\_\_\_\_

Describe why you found it interesting: \_\_\_\_\_

28. Touch the top of the map of southern California that is at the entrance to the *Coast to Cactus* exhibition. Move your hand across the map from left to right...from west to east. Describe what the bumps and smooth areas represent: \_\_\_\_\_

How does the land change as you move from the ocean to the desert (from right to left –from west to east)? \_\_\_\_\_

How does this help you understand how the different habitats in southern California blend into each other as they move inland from the coastal areas toward the desert areas? \_\_\_\_\_

Does the difference in elevation influence what type of habitat is found in the area? \_\_\_\_\_  
Explain your answer: \_\_\_\_\_

29. If you explored the “Different Beaks for Different Needs” hands on activity near the estuary, compare the three different beaks and explain the differences between them. \_\_\_\_\_

Describe how each beak benefits each different species of shore bird. \_\_\_\_\_

Do the differences in the beaks cause the different birds to compete for the same food sources? \_\_\_\_\_ Justify your answer \_\_\_\_\_

30. Find a picture that shows southern California as it looked in the past. You may find post

cards downstairs or you may look at the big screens upstairs to see changes that happened over the years. Based on what you see in the pictures, would you want to live in the time period that the picture was taken or would you rather live in the present? \_\_\_\_\_

List examples from each time period to defend your answer; perhaps make a graphic organizer to compare the two time periods to defend your choice.

31. Using the monitor on the directional post at the entrance to the exhibition, examine the differences in the current temperature between two different areas in southern California.

Please use the chart below to record your observations and reasoning.

Area #1 and Temperature		Area #2 and Temperature	Calculate the Temperature difference	Formulate an explanation about why the temperatures in these two areas are different.
Coast	vs	Mountains		
Canyons and Streams	vs	Desert		

32. A) In the mudflats, what are some different textures that you observe on the bodies of animals that live there? \_\_\_\_\_

B) How do these textures, which are adaptations, help the animal to survive in its watery habitat? \_\_\_\_\_

33. \*Look through the drawers in the wooden cabinets on the wall opposite the rocks found in the Torrey Pines exhibit. The drawers have light green fronts and invite you to look inside.

Choose two plants to read about and learn how Native Californian's used the plants. You will be surprised to find that many plants were used as medications.

A) List the two plants you chose and note what each was used for:

Plant #1: Name \_\_\_\_\_ Uses: \_\_\_\_\_

\_\_\_\_\_

B) Plant #2: Name \_\_\_\_\_ Uses: \_\_\_\_\_

\_\_\_\_\_

C) What else did Native Californians use some of the plants for in their daily lives? \_\_\_\_\_

\_\_\_\_\_

D) Does your family use a plant for any reason other than decoration? \_\_\_\_\_

Please give the name of the plant and tell what your family uses it for: \_\_\_\_\_

\_\_\_\_\_

34. Upstairs: A) At the glass tables, what is the question presented to the public? \_\_\_\_\_

\_\_\_\_\_

B) What is your response or drawing to the question? \_\_\_\_\_

\_\_\_\_\_

C) Did you place your comment card on the tree for all to see? \_\_\_\_\_

35. Do you have a favorite memory of Southern California? Please share your memory in as

much detail as you would like: \_\_\_\_\_

\_\_\_\_\_

**Last Q:** Which area of the *Coast to Cactus* exhibition would tell a friend to be sure to go? "DO NOT MISS IT!" \_\_\_\_\_

Why would you want to make certain that your friend sees that area? What was

interesting, cool, or amazed you about the area or item? \_\_\_\_\_

\_\_\_\_\_