SCIENCE

Plant adaptations

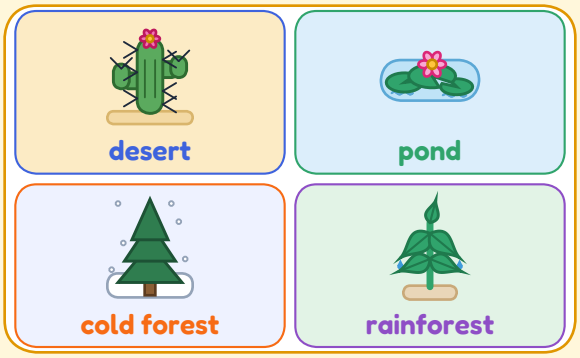


Name _____ Date _____

🎯 **I can explain how special parts help plants survive in their homes.**

1 How it works

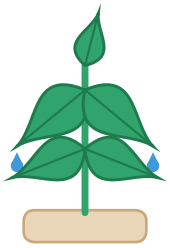
An adaptation is a part that helps a plant survive in its home. A cactus has a thick stem that stores water and spines that keep animals away. A water lily has big, flat leaves that float in the sun. A pine tree has thin, waxy needles that save water in winter. Rainforest leaves have pointed tips, so heavy rain drips off.



2 Where does each plant live?

Use the words in the box.

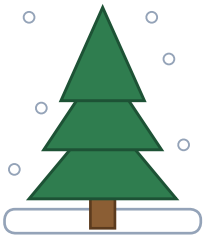
desert **pond** **cold forest** **rainforest**



big-leaf plant

Home _____

Special part _____



pine tree

Home _____

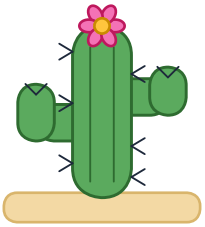
Special part _____



water lily

Home _____

Special part _____



cactus

Home _____

Special part _____

How did I do? ☆ ☆ ☆

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SCIENCE · PLANT ADAPTATIONS

Built to survive



Name _____ Date _____

🎯 I can tell how a plant's special parts help it survive.

1 Match each part to its job

thick, fat stem	keep thirsty animals away
sharp spines	let heavy rain drip off
big, flat floating leaves	stores water for dry days
thin, waxy needles	catch sunlight on top of the pond
leaves with pointed tips	save water in cold, windy winters

2 Could it live there? Circle one.

1. A cactus grows in a hot, dry desert.

   survive well | survive less well | cannot survive

2. A water lily is planted in a dry desert.

   survive well | survive less well | cannot survive

3. A cactus is planted in a wet, rainy garden.

   survive well | survive less well | cannot survive

How did I do? ☆ ☆ ☆

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SCIENCE · PLANT ADAPTATIONS

Think like a scientist



Name _____ Date _____

🎯 **I can explain how a plant's parts help it survive in its home.**

1 Think about it ❓

1. Why does a cactus have spines, not leaves? _____
2. How does a water lily stay on top? _____
3. How do needles help a pine in winter? _____
4. Could a water lily live in a desert? _____

2 True or false? Circle it. ✅

1. **Spines help keep animals away.** true false
2. **Pine needles help save water in winter.** true false
3. **A water lily needs to live in a desert.** true false
4. **A cactus stores water in its stem.** true false
5. **Every plant can live in every place.** true false

3 Invent a plant for a hot, dry desert. Label its special parts. 🖍️

How did I do? ☆ ☆ ☆

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SCIENCE · PLANT ADAPTATIONS

Try it: the waxy leaf test

Name _____ Date _____

I can show how a waxy skin saves water.

1 You need

- 2 paper towels
- wax paper
- water
- a plate
- tape

2 What to do

1. Wet both paper towels. Squeeze out the extra water.
2. Roll each towel up like a leaf. Wrap one in wax paper and tape it. Leave the other bare.
3. Put both on a plate in a sunny spot.
4. Feel both towels after 1 hour, 3 hours and 1 day.

3 I predict

Which towel will stay wet longer?

_____

_____

4 What I see

Time	Bare towel	Waxy towel
1 hour		
3 hours		
1 day		

How did I do? ☆ ☆ ☆

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FOR TEACHERS AND PARENTS

Answer key: plant adaptations

1 Page 1

Homes: 1) big-leaf plant: rainforest (leaves with drip tips); 2) pine tree: cold forest (thin, waxy needles); 3) water lily: pond (floating leaves); 4) cactus: desert (thick stem or spines).

2 Page 2

Jobs: 1) thick, fat stem: stores water for dry days; 2) sharp spines: keep thirsty animals away; 3) big, flat floating leaves: catch sunlight on top of the pond; 4) thin, waxy needles: save water in cold, windy winters; 5) leaves with pointed tips: let heavy rain drip off.

Survive: 1) survive well; 2) cannot survive; 3) survive less well.

3 Page 3

Think: 1) Spines lose less water and keep animals away; 2) Its leaves hold air, so they float; 3) Thin, waxy needles lose little water; 4) No, it would dry out and die.

True or false: 1) true; 2) true; 3) false; 4) true; 5) false.

Drawing: answers will vary. Look for parts that store water, save water or protect the plant, such as a fat stem, spines, a waxy skin or long roots.

4 Page 4: Try it!

The bare towel dries out first. The towel wrapped in wax paper stays damp much longer, because the wax keeps the water from escaping into the air. A cactus and a pine needle have a waxy coat that works the same way, so they save water where it is hot, dry or freezing.

5 Teaching tip 💡

Show real examples if you can: a small cactus, a pine branch and a houseplant leaf. Let children feel the waxy skin, then use the words survive well, survive less well and cannot survive when they argue where each plant belongs.

Safety: no cutting or heat is needed. Wipe up spills so no one slips.

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