Vertex Academy

Year 2 Science workbook

6 worksheets · answers at the back

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Year 2 Science: Materials: natural or made, and how they bend and break

Name: _____ Date: _____

Try these without your notes first, then check the answer key.

Practice

1. Is wool natural or manufactured?

2. Is a brick natural or manufactured?

3. In Room 7's test, what happened to the ice block stick?

4. You crush a cracker into crumbs. Are the crumbs still cracker?

5. Does the air in a balloon take up space?

Fix the mistake

6. Correct this statement: "Air is nothing, so it does not take up space."

7. Correct this statement: "Paper is natural because it comes from trees."

8. Correct this statement: "When rock turns into sand, the rock is gone."

Year 2 Science: Sound: vibrations, loudness and high and low

Name: _____ Date: _____

Try these without your notes first, then check the answer key.

Practice

1. What has to happen to make any sound?

2. You pluck a string harder. What happens to the sound?

3. Which has a higher frequency: a whistle or a big drum?

4. Which makes a voice from the next room harder to hear: an open door or a thick, closed curtain?

5. In Room 8's test, was the tap clearer with an ear on the table or in the air?

Fix the mistake

6. Correct this statement: "A whistle is high because it is loud."

7. Correct this statement: "Sound can only travel through air."

8. Correct this statement: "Putting a pillow over a speaker makes it louder."

Year 2 Science: Pushes and pulls: starting, stopping and turning

Name: _____ Date: _____

Try these without your notes first, then check the answer key.

Practice

1. Opening a drawer: is that a push or a pull?

2. You push a swing gently, then much harder. What happens with the harder push?

3. A ball rolls towards you and you put your foot on it. What does your push do?

4. How does a paper plane move through the air?

5. In Room 5's test, how far did the car go after the big push?

Fix the mistake

6. Correct this statement: "When I push a heavy box and it does not move, there is no force."

7. Correct this statement: "A rolling ball stops because it gets tired."

8. Correct this statement: "A push and a pull are the same thing."

Year 2 Science: Life cycles: from egg or seed to adult

Name: _____ Date: _____

Try these without your notes first, then check the answer key.

Practice

1. Put these in order: butterfly, egg, chrysalis, caterpillar.

2. Does a kiwi chick hatch from an egg, or is it born?

3. What grows first from a bean seed: a root or a shoot?

4. Is a lamb exactly the same as its mother?

5. In Room 6's beans, on which day did the shoot first come up?

Fix the mistake

6. Correct this statement: "A caterpillar is a different animal from a butterfly."

7. Correct this statement: "Babies look exactly the same as their parents."

8. Correct this statement: "Plants do not have a life cycle because they do not move."

Year 2 Science: Breathing, moving and sensing

Name: _____ Date: _____

Try these without your notes first, then check the answer key.

Practice

1. When a muscle contracts, does it get shorter or longer?

2. When you breathe in, do your ribs move in or out?

3. Which sense organ picks up a smell?

4. Which part of your body works out what your senses pick up?

5. In Room 9's test, how many children smelled the 5-drop cotton ball?

Fix the mistake

6. Correct this statement: "Muscles push bones to move them."

7. Correct this statement: "When I breathe in, the air goes into my stomach."

8. Correct this statement: "My eyes do all the seeing by themselves."

Year 2 Science: Habitats: where living things live

Name: _____ Date: _____

Try these without your notes first, then check the answer key.

Practice

1. What is a habitat?

2. Which habitat suits a pāua?

3. Under Room 1's log, which animal did they count most of?

4. How many slaters were on the lawn?

5. Why did more kinds of animal live under the log than on the lawn?

Fix the mistake

6. Correct this statement: "A habitat is just an animal's nest or burrow."

7. Correct this statement: "Any animal can live anywhere if it has food."

8. Correct this statement: "I looked once, so I counted everything."

Answer key (for parents and tutors)

1. Is wool natural or manufactured?
   Natural, because it grows on sheep.
2. Is a brick natural or manufactured?
   Manufactured, because people bake clay to make it.
3. In Room 7's test, what happened to the ice block stick?
   It bent a little, then snapped.
4. You crush a cracker into crumbs. Are the crumbs still cracker?
   Yes, they are smaller pieces of the same cracker.
5. Does the air in a balloon take up space?
   Yes, which is why the balloon gets bigger.
6. Correct this statement: "Air is nothing, so it does not take up space."
   Air is a material; a balloon gets bigger as you blow air in because the air takes up space.
7. Correct this statement: "Paper is natural because it comes from trees."
   Paper is made from wood by people in a factory, so it is manufactured.
8. Correct this statement: "When rock turns into sand, the rock is gone."
   The rock is still there as tiny grains; breaking a material makes smaller pieces of the same stuff.

Answer key (for parents and tutors)

1. What has to happen to make any sound?
   Something must vibrate.
2. You pluck a string harder. What happens to the sound?
   It gets louder, because the string swings further.
3. Which has a higher frequency: a whistle or a big drum?
   The whistle.
4. Which makes a voice from the next room harder to hear: an open door or a thick, closed curtain?
   The thick, closed curtain, because soft, thick materials soak up sound.
5. In Room 8's test, was the tap clearer with an ear on the table or in the air?
   With an ear on the table.
6. Correct this statement: "A whistle is high because it is loud."
   High or low is pitch, from how fast it vibrates; loud or quiet is volume, from how big the vibrations are.
7. Correct this statement: "Sound can only travel through air."
   Sound also travels through water and solids, often more clearly than through air.
8. Correct this statement: "Putting a pillow over a speaker makes it louder."
   Soft, thick materials soak up sound, so the sound gets quieter and muffled.

Answer key (for parents and tutors)

1. Opening a drawer: is that a push or a pull?
   A pull.
2. You push a swing gently, then much harder. What happens with the harder push?
   The swing goes faster and higher.
3. A ball rolls towards you and you put your foot on it. What does your push do?
   It stops the ball.
4. How does a paper plane move through the air?
   It glides.
5. In Room 5's test, how far did the car go after the big push?
   10 floor tiles.
6. Correct this statement: "When I push a heavy box and it does not move, there is no force."
   You are still pushing; your push is just not big enough to start the box moving.
7. Correct this statement: "A rolling ball stops because it gets tired."
   The ground and the air rub on the ball, and that rubbing is a force that slows it down.
8. Correct this statement: "A push and a pull are the same thing."
   A push moves something away from you; a pull moves it towards you.

Answer key (for parents and tutors)

1. Put these in order: butterfly, egg, chrysalis, caterpillar.
   Egg, caterpillar, chrysalis, butterfly.
2. Does a kiwi chick hatch from an egg, or is it born?
   It hatches from an egg.
3. What grows first from a bean seed: a root or a shoot?
   A root.
4. Is a lamb exactly the same as its mother?
   No, it looks like her but is not exactly the same.
5. In Room 6's beans, on which day did the shoot first come up?
   Day 10.
6. Correct this statement: "A caterpillar is a different animal from a butterfly."
   A caterpillar is a young butterfly; it changes shape inside the chrysalis.
7. Correct this statement: "Babies look exactly the same as their parents."
   Offspring look like their parents, but each one is a little different.
8. Correct this statement: "Plants do not have a life cycle because they do not move."
   Plants grow from seeds, grow up, make new seeds and die, so they have a life cycle too.

Answer key (for parents and tutors)

1. When a muscle contracts, does it get shorter or longer?
   Shorter, and fatter.
2. When you breathe in, do your ribs move in or out?
   Out.
3. Which sense organ picks up a smell?
   The nose.
4. Which part of your body works out what your senses pick up?
   The brain.
5. In Room 9's test, how many children smelled the 5-drop cotton ball?
   9 of 10 children.
6. Correct this statement: "Muscles push bones to move them."
   Muscles can only pull; to move a bone back, another muscle pulls the other way.
7. Correct this statement: "When I breathe in, the air goes into my stomach."
   Air goes down into your lungs; your tummy moves because the muscles under your lungs move.
8. Correct this statement: "My eyes do all the seeing by themselves."
   Your eyes pick up light, but your brain works out what you are looking at.

Answer key (for parents and tutors)

1. What is a habitat?
   The place where a living thing lives.
2. Which habitat suits a pāua?
   A rocky shore.
3. Under Room 1's log, which animal did they count most of?
   Ants, 9 of them.
4. How many slaters were on the lawn?
   0, none.
5. Why did more kinds of animal live under the log than on the lawn?
   The log is dark and damp and gives shelter.
6. Correct this statement: "A habitat is just an animal's nest or burrow."
   A habitat is the whole place it lives, including where it finds food and water, not only its nest.
7. Correct this statement: "Any animal can live anywhere if it has food."
   Each living thing needs its own conditions; a kōura needs cool water and would die on a dry beach.
8. Correct this statement: "I looked once, so I counted everything."
   Small animals hide under leaves and stones, so look slowly and count more than once.