Vertex Academy

Year 3 Science workbook

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Year 3 Science: Materials: bendy, stretchy, hard, snappy and soaking

Name: _____ Date: _____

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

Practice

1. A hair tie is 6 cm long. When it is stretched it is 10 cm long. How far did it stretch?

2. You bend a dry cracker and it snaps. Is it flexible or brittle?

3. Which is best for a bath mat: plastic, a towel or glass?

4. A balloon is blown up, then let down. It goes back to small. Is it elastic?

5. Why is a gumboot made of rubber and not cloth?

Fix the mistake

6. Correct this statement: "Play dough is elastic because it stretches."

7. Correct this statement: "Hard things are always brittle."

8. Correct this statement: "The band reached 12 cm on the ruler, so it stretched 12 cm."

Year 3 Science: Light: where it comes from, what it does, and shadows

Name: _____ Date: _____

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

Practice

1. Is a torch a light source?

2. Is baking paper transparent, translucent or opaque?

3. Why can we see the Moon at night?

4. A torch moves from high above a toy to low down. Does the shadow get longer or shorter?

5. A cup looks blue. Which colour of light does it bounce back?

6. A boat far out at sea looks tiny. Is it really tiny?

Fix the mistake

7. Correct this statement: "The Moon makes its own light, like the Sun."

8. Correct this statement: "Translucent means you can see clearly through it."

9. Correct this statement: "A shadow is longest when the light is high above."

Year 3 Science: Pushes and pulls: what makes things move, stop and turn

Name: _____ Date: _____

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

Practice

1. You open a door by pulling the handle towards you. Is that a push or a pull?

2. A ball is sitting still on the floor. What will make it start to move?

3. Ana kicks a ball gently, then kicks it hard. Which kick sends it further?

4. Where would a marble roll furthest: on sand, on grass, or on a kitchen floor?

5. You squeeze a sponge and let go. What happens to its shape?

Fix the mistake

6. Correct this statement: "A rolling ball stops because it runs out of push."

7. Correct this statement: "We can change the car and the surface at the same time to test the surface."

8. Correct this statement: "A soft push and a hard push do the same thing."

Year 3 Science: Plant eaters, meat eaters and both: teeth, beaks and food

Name: _____ Date: _____

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

Practice

1. An animal has wide, flat back teeth for grinding. Is it a herbivore, a carnivore or an omnivore?

2. A bird has a hooked beak and sharp claws. What does it eat?

3. A bear eats berries and fish. Which group is it in?

4. Why does a kiwi have a long, thin beak?

5. A butterfly has a tongue like a long straw. What does it eat?

Fix the mistake

6. Correct this statement: "Big animals must be meat eaters."

7. Correct this statement: "Omnivore means it eats anything at all."

8. Correct this statement: "All birds eat seeds."

Year 3 Science: Food and nutrients: what your body needs and why

Name: _____ Date: _____

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

Practice

1. Rice gives you energy. Which nutrient does it have most of?

2. Which food helps build and fix your body: bread, fish or an apple?

3. Which nutrient does butter have most of?

4. What is the best drink on a hot day?

5. A lunch is a pie and a fizzy drink. What is missing?

Fix the mistake

6. Correct this statement: "Fat is bad for you, so we should eat none."

7. Correct this statement: "Fruit juice is just as good as water."

8. Correct this statement: "Each food has only one nutrient."

Year 3 Science: Food chains: who eats what, starting with a plant

Name: _____ Date: _____

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

Practice

1. What three things does a plant use to make its food?

2. Put these in a food chain: hawk, grass, rabbit.

3. In leaf → caterpillar → thrush, what eats the caterpillar?

4. What is always at the start of a food chain?

5. In grass → rabbit → hawk, the rabbits get sick and die. What happens to the hawks?

Fix the mistake

6. Correct this statement: "In grass → rabbit, the arrow means the grass eats the rabbit."

7. Correct this statement: "A food chain can start with any animal."

8. Correct this statement: "Plants get their food from the soil."

Answer key (for parents and tutors)

1. A hair tie is 6 cm long. When it is stretched it is 10 cm long. How far did it stretch?
   4 cm, because 10 − 6 = 4.
2. You bend a dry cracker and it snaps. Is it flexible or brittle?
   Brittle, because it snaps when you bend it.
3. Which is best for a bath mat: plastic, a towel or glass?
   A towel, because it is absorbent and soaks up the drips.
4. A balloon is blown up, then let down. It goes back to small. Is it elastic?
   Yes, it is elastic, because it goes back to its shape.
5. Why is a gumboot made of rubber and not cloth?
   Rubber is waterproof and bends when you walk; cloth soaks up water.
6. Correct this statement: "Play dough is elastic because it stretches."
   Elastic things go back to their shape when you let go; play dough stays stretched, so it is not elastic.
7. Correct this statement: "Hard things are always brittle."
   Brittle things snap or shatter. A metal spoon is hard and rigid, but it does not shatter.
8. Correct this statement: "The band reached 12 cm on the ruler, so it stretched 12 cm."
   The stretch is the new length take away the first length: 12 cm take away 8 cm is 4 cm.

Answer key (for parents and tutors)

1. Is a torch a light source?
   Yes, it makes its own light.
2. Is baking paper transparent, translucent or opaque?
   Translucent, because it lets some light through.
3. Why can we see the Moon at night?
   The Moon bounces sunlight back to Earth.
4. A torch moves from high above a toy to low down. Does the shadow get longer or shorter?
   Longer, because a low light makes a long shadow.
5. A cup looks blue. Which colour of light does it bounce back?
   Blue light.
6. A boat far out at sea looks tiny. Is it really tiny?
   No. It looks small because it is far away.
7. Correct this statement: "The Moon makes its own light, like the Sun."
   The Moon only bounces back light from the Sun; the Sun is the light source.
8. Correct this statement: "Translucent means you can see clearly through it."
   Translucent lets only some light through, so things look blurry; transparent is the one you see clearly through.
9. Correct this statement: "A shadow is longest when the light is high above."
   A high light makes a short shadow; a low light makes a long one.

Answer key (for parents and tutors)

1. You open a door by pulling the handle towards you. Is that a push or a pull?
   A pull, because the door comes towards you.
2. A ball is sitting still on the floor. What will make it start to move?
   A push or a pull.
3. Ana kicks a ball gently, then kicks it hard. Which kick sends it further?
   The hard kick, because a bigger push makes a bigger change.
4. Where would a marble roll furthest: on sand, on grass, or on a kitchen floor?
   The kitchen floor, because it is the smoothest.
5. You squeeze a sponge and let go. What happens to its shape?
   It springs back to its first shape.
6. Correct this statement: "A rolling ball stops because it runs out of push."
   It stops because the ground and the air rub against it; on a smoother surface it rolls further.
7. Correct this statement: "We can change the car and the surface at the same time to test the surface."
   Change only one thing at a time, or you cannot tell which change made the difference.
8. Correct this statement: "A soft push and a hard push do the same thing."
   A harder push makes a bigger change, so the ball goes faster and further.

Answer key (for parents and tutors)

1. An animal has wide, flat back teeth for grinding. Is it a herbivore, a carnivore or an omnivore?
   A herbivore, because flat teeth grind plants.
2. A bird has a hooked beak and sharp claws. What does it eat?
   Other animals, so it is a carnivore.
3. A bear eats berries and fish. Which group is it in?
   An omnivore, because it eats plants and animals.
4. Why does a kiwi have a long, thin beak?
   To poke deep into soil and find worms and grubs.
5. A butterfly has a tongue like a long straw. What does it eat?
   Nectar from flowers.
6. Correct this statement: "Big animals must be meat eaters."
   Size is not the clue. A cow is huge and eats only plants; look at the teeth or beak instead.
7. Correct this statement: "Omnivore means it eats anything at all."
   An omnivore eats both plants and animals, not every kind of thing.
8. Correct this statement: "All birds eat seeds."
   Birds eat many foods: a kārearea's hooked beak tears meat, and a kiwi's long beak finds worms.

Answer key (for parents and tutors)

1. Rice gives you energy. Which nutrient does it have most of?
   Carbohydrate.
2. Which food helps build and fix your body: bread, fish or an apple?
   Fish, because it has lots of protein.
3. Which nutrient does butter have most of?
   Fat.
4. What is the best drink on a hot day?
   Water.
5. A lunch is a pie and a fizzy drink. What is missing?
   Fruit and vegetables (vitamins and minerals), and water.
6. Correct this statement: "Fat is bad for you, so we should eat none."
   Your body needs some fat for energy and warmth; we just should not eat too much.
7. Correct this statement: "Fruit juice is just as good as water."
   Juice has lots of sugar in it; water is the best drink for your body.
8. Correct this statement: "Each food has only one nutrient."
   Most foods have several nutrients; we sort a food by the one it has most of.

Answer key (for parents and tutors)

1. What three things does a plant use to make its food?
   Sunlight, water and carbon dioxide.
2. Put these in a food chain: hawk, grass, rabbit.
   grass → rabbit → hawk.
3. In leaf → caterpillar → thrush, what eats the caterpillar?
   The thrush.
4. What is always at the start of a food chain?
   A plant.
5. In grass → rabbit → hawk, the rabbits get sick and die. What happens to the hawks?
   The hawks have less food, so there will be fewer hawks.
6. Correct this statement: "In grass → rabbit, the arrow means the grass eats the rabbit."
   The arrow points to the eater: the grass is eaten by the rabbit.
7. Correct this statement: "A food chain can start with any animal."
   Every food chain starts with a plant, because only plants make their own food.
8. Correct this statement: "Plants get their food from the soil."
   Plants make their own food from sunlight, water and carbon dioxide; the soil gives them water.