

Unit 1 Invertebrates

(p. 6)

Q Which animal has a backbone, the tiger or the caterpillar?

A The tiger has a backbone.

(p. 7)

Q Can you guess which animals do not have a backbone?

A The spider, slug, scorpion, cuttlefish, and grasshopper do not have a backbone.

Key Words (pp. 6-7)

1. ⑥
2. ⑥
3. ①
4. ⑥
5. ①
6. ⑥
7. ①
8. ⑥

(p. 8)

Q What do invertebrates not have in their body?

A They do not have a backbone in their body.

Comprehension Check (p. 10)

1. ③
2. ①
3. False
4. True

5. backbone, invertebrates

6. make up

7. ⑥

8. star-shaped

Points to Remember (p. 11)

A.

Earthworms, skin, shells, segmented, transparent, spines

B.

animals, backbone, vertebrates, Invertebrates, types, honeybees

Unit 2 Head-Footed Animals

(p. 12)

Q1 Have you ever seen an octopus before?

A1 (Answers may vary.) Yes, I saw an octopus once at an aquarium.

Q2 What are the main parts of its body?

A2 An octopus's body mainly has a head and eight arms.

(p. 13)

Q1 Have you ever seen a squid before?

A1 (Answers may vary.) Yes, I saw a squid one time in the ocean.

Q2 What are the main parts of its body?

A2 A squid's body mainly has a head and many arms.

Key Words (pp. 12-13)

1. Ⓐ
2. Ⓑ
3. Ⓑ
4. Ⓑ
5. Ⓐ
6. Ⓐ
7. Ⓐ
8. Ⓑ

(p. 14)

Q1 How are octopuses and squids similar?

A1 Octopuses and squids both have a large brain and blue blood.

Q2 How are they different?

A2 They have different body shapes and live in different parts of the ocean.

Comprehension Check (p. 16)

1. Ⓒ
2. Ⓒ
3. False
4. False
5. ink, predators
6. consist, arms
7. Ⓑ
8. open

Points to Remember (p. 17)

A.

Octopus: round, eight arms, hunt alone

Squid: two fins, two tentacles, open water

B.

head-footed, feet, brains, blue, jet, danger

Making Connections (p. 18)

Unit 1: f-d-a

Unit 2: c-e-b

Unit 3 Ask NYPL

(p. 20)

Q1 What is the man's job?

A1 He is a librarian.

Q2 What kind of work do librarians do?

A2 Librarians organize and help people find information.

(p. 21)

Q1 What are some different ways to find information?

A1 People can find information from books, news articles, and social media.

Q2 How do you find your information?

A2 (Answers may vary.) I find most of my information from online news articles.

Key Words (pp. 20-21)

1. Ⓑ

2. Ⓐ
3. Ⓐ
4. Ⓑ
5. Ⓐ
6. Ⓐ
7. Ⓑ
8. Ⓑ

(p. 22)

Q What does Ask NYPL allow New Yorkers to do?

A It allows New Yorkers to call librarians and ask for information.

Comprehension Check (p. 24)

1. Ⓑ
2. Ⓒ
3. True
4. False
5. telephone, NYPL
6. questions, sorts
7. Ⓑ
8. took

Points to Remember (p. 25)

A.

Telephone Service: Library, 1968

Service Users: fact-check, basic

Librarians: provide, archives

B.

information, Public, librarians, archives, used, look up

Unit 4 Bookmobiles

(p. 26)

Q1 When do you think the picture was taken?

A1 (Answers may vary.) I think it was taken one hundred years ago.

Q2 What is special about the vehicle?

A2 It carries lots of books.

(p. 27)

Q Who might need this kind of vehicle?

A (Answers may vary.) I think people who do not have local libraries need this kind of vehicle.

Key Words (pp. 26-27)

1. Ⓐ
2. Ⓑ
3. Ⓐ
4. Ⓑ
5. Ⓐ
6. Ⓑ
7. Ⓐ
8. Ⓑ

(p. 28)

Q What are some vehicles that can be used as bookmobiles?

A Almost any vehicle can be used as a

bookmobile, but some examples include horse-drawn vans and wagons, cars, and trucks.

Comprehension Check (p. 30)

1. Ⓐ
2. Ⓑ
3. True
4. False
5. two, 200
6. access, represent
7. Ⓒ
8. popular

Points to Remember (p. 31)

A.

The Mobile Camel Library: Kenya, desert, 400

The Bokbaten: Sweden, islands, 3,000

B.

convenient, deliver, wagons, vehicle, borrow, access

Making Connections (p. 32)

Unit 3: c-e-a

Unit 4: d-f-b

Unit 5 The Mysterious Street Artist

(p. 34)

Q1 Have you ever seen graffiti before?

A1 (Answers may vary.) No, not in real life. I have only seen it on TV.

Q2 Why do you think some people create graffiti?

A2 (Answers may vary.) I think they want to share their ideas and opinions with other people.

(p. 35)

Q What do you think each piece of graffiti means?

A (Answers may vary.) Watching TV is not good for us. / We do not have any privacy. / There is too much CCTV in our world.

Key Words (pp. 34-35)

1. Ⓑ
2. Ⓐ
3. Ⓑ
4. Ⓐ
5. Ⓐ
6. Ⓑ
7. Ⓐ
8. Ⓐ

(p. 36)

Q Who is Banksy?

A He is a mysterious street artist who does graffiti in secret.

Comprehension Check (p. 38)

1. Ⓐ
2. Ⓒ
3. True
4. False

5. illegal
6. life, world
7. ©
8. public

Points to Remember (p. 39)

A.

anonymous, stencil, spray, walls, *Balloon*, HOPE

B.

in secret, paint, anonymous, powerful, famous, mystery

Unit 6 Graffiti That Grows

(p. 40)

Q1 What material is the woman putting on the wall?

A1 She is putting grass is on the wall.

Q2 What do you think this kind of art is called?

A2 (Answers may vary.) I think it is called "grass graffiti."

(p. 41)

Q How is this kind of graffiti different from traditional graffiti?

A This kind of graffiti uses natural materials. Normal graffiti uses spray paint that is not good for the environment.

Key Words (pp. 40-41)

1. ⑥
2. ⑥

3. ⑥

4. ⑥

5. ⑥

6. ⑥

7. ⑥

8. ⑥

(p. 42)

Q What is moss?

A Moss is a type of green plant that has tiny leaves.

Comprehension Check (p. 44)

1. ©

2. ⑥

3. True

4. False

5. harsh, toxic

6. safe, environment

7. ⑥

8. green

Points to Remember (p. 45)

A.

Traditional Graffiti: spray, toxic, harmful

Moss Graffiti: water, safe, positive

B.

3D effect, moss, anyone, create, eco-friendly, plant

Making Connections (p. 46)

Unit 5: a-e-d

Unit 6: c-f-b

Unit 7 The Long Road to Steel

(p. 48)

Q Which items do you think are made of a) bronze, b) iron, c) steel?

A I think items 4 and 6 are made of bronze. I think items 1 and 2 are made of iron. I think items 3 and 5 are made of steel.

(p. 49)

Q1 What material is the bridge made of?

A1 The bridge is made of steel.

Q2 Why do you think this material was used?

A2 (Answers may vary.) I think steel is very strong and lasts for a very long time.

Key Words (pp. 48-49)

1. ⓑ

2. ⓐ

3. ⓐ

4. ⓑ

5. ⓐ

6. ⓑ

7. ⓐ

8. ⓑ

(p. 50)

Q What is steel? When was it invented?

A Steel is a combination of 98% iron and 2% carbon. It was invented around 400 BC.

Comprehension Check (p. 52)

1. Ⓒ

2. ⓑ

3. False

4. True

5. tin

6. iron, carbon

7. ⓐ

8. modern

Points to Remember (p. 53)

A.

metals, Copper, element, durable, Carbon, produce

B.

material, Bronze, replacement, superior, invented, Industrial

Unit 8 Stainless Steel

(p. 54)

Q Why do you think these tools are made of stainless steel?

A I think they are made of stainless steel because they must be very smooth and clean.

(p. 55)

Q What happened to these old nails?

A They became an orange-brown color.

Key Words (pp. 54-55)

1. Ⓐ
2. Ⓐ
3. Ⓑ
4. Ⓐ
5. Ⓐ
6. Ⓑ
7. Ⓑ
8. Ⓐ

(p. 56)

Q How is stainless steel different from regular steel?

A Stainless steel contains roughly 11% chromium. Therefore, it does not rust or stain like regular steel.

Comprehension Check (p. 58)

1. Ⓐ
2. Ⓒ
3. True
4. False
5. oxygen
6. appliances, tools
7. Ⓑ
8. condition

Points to Remember (p. 59)

A. (clockwise from top center)

chromium, durable, cookware, car, environmentally, rust

B.

material, stainless, layer, staining, nature, surgical

Making Connections (p. 60)

Unit 7: d-b-a

Unit 8: c-f-e

Unit 9 Esports

(p. 62)

Q1 What are the men doing?

A1 They are playing video games.

Q2 What do you think their job is?

A2 (Answers may vary.) I think they are professional video game players.

(p. 63)

Q1 What is the man holding?

A1 He is holding a trophy.

Q2 What do you think he won?

A2 (Answers may vary.) I think he won an esports tournament.

Key Words (pp. 62-63)

1. Ⓐ
2. Ⓐ
3. Ⓑ

4. Ⓐ
5. Ⓑ
6. Ⓑ
7. Ⓑ
8. Ⓐ

(p. 64)

Q How do esports athletes compete?

A Esports athletes compete against each other in video game tournaments.

Comprehension Check (p. 66)

1. Ⓑ
2. Ⓒ
3. True
4. False
5. money, products
6. strategies
7. Ⓑ
8. earn

Points to Remember (p. 67)

A. (clockwise from top center)

video, athletes, tournaments, celebrities, clubs, individual

B.

popular, fans, compete, teams, platforms, pro gamers

Unit 10 How Pro Gamers Train

(p. 68)

Q How do you think pro gamers keep their bodies healthy?

A (Answers may vary.) I think pro gamers keep their bodies healthy by exercising and eating healthy food.

(p. 69)

Q How do you think pro gamers keep their minds healthy?

A (Answers may vary.) I think pro gamers keep their minds healthy by playing other sports and getting lots of sleep.

Key Words (pp. 68-69)

1. Ⓑ
2. Ⓐ
3. Ⓐ
4. Ⓑ
5. Ⓐ
6. Ⓑ
7. Ⓐ
8. Ⓑ

(p. 70)

Q How do pro gamers keep their bodies and minds healthy?

A Pro gamers keep their bodies and minds healthy by exercising, eating healthfully, meditating, and getting enough sleep.

Comprehension Check (p. 72)

1. ©
2. ©
3. True
4. True
5. discipline
6. weakness, skills
7. ©
8. performance

Points to Remember (p. 73)

A.

Body: strength, muscles, periods

Mind: sugar, stress, recover

B.

minds, exercise, cardio, meditation, practice, overall

Making Connections (p. 74)

Unit 9: e-c-b

Unit 10: d-f-a

Unit 11 Sugar in Our Body

(pp. 76-77)

Q1 What do all of the foods have in common?

A1 They all contain sugar.

Q2 Do you think sugar is good or bad for our body?

A2 (Answers may vary.) I think our body uses sugar for energy.

Key Words (pp. 76-77)

1. a
2. a
3. b
4. b
5. b
6. b
7. a
8. a

(p. 78)

Q Why is sugar important for our body?

A The cells in our body depend on glucose (sugar) for energy.

Comprehension Check (p. 80)

1. b
2. c
3. True
4. False
5. cells, energy
6. function
7. b
8. depend

Points to Remember (p. 81)

A.

sugar, glucose, cells, blood, immediately, energy

B.

sugar, substance, breaks, primary, negative, balance

Unit 12 Choosing the Right Juice

(p. 82)

Q1 What kind of juice did the woman choose?

A1 She chose orange juice.

Q2 What kind of juice do you usually drink?

A2 (Answers may vary.) I usually drink grape or pineapple juice.

(p. 83)

Q1 Which kind of juice do you think is healthier?

A1 I think juice number 2 is healthier.

Q2 Why do you think so?

A2 (Answers may vary.) I think juice number 2 is made of real fruits and vegetables, but juice number 1 is not.

Key Words (pp. 82-83)

1. Ⓐ
2. Ⓐ
3. Ⓐ
4. Ⓑ
5. Ⓐ
6. Ⓐ
7. Ⓑ
8. Ⓑ

(p. 84)

Q What is the best choice in juice? Why is it the best choice?

A The best choice in juice is 100% vegetable juice. It is the best choice because it contains lots of vitamins, minerals, fiber, and very little sugar.

Comprehension Check (p. 86)

1. Ⓐ
2. Ⓑ
3. True
4. False
5. real
6. whole, water
7. Ⓒ
8. choice

Points to Remember (p. 87)

A. (from worst to best)

Juice "Drinks" or "Cocktails": sugar, worst

100% Fruit Juice: high, choice

100% Fruit Juice: nutrients

B.

choose, artificial, minerals, sugar, fiber, fruit

Making Connections (p. 88)

Unit 11: e-c-a

Unit 12: d-b-f

Unit 13 The Origin of the Metric

System

(p. 90)

Q What line is the person pointing at?

A The person is pointing at the equator.

(p. 91)

Q1 What point is the pin on?

A1 The pin is on the North Pole.

Q2 How far is the equator from the North Pole?

A2 The equator is around 10,000 kilometers from the North Pole.

Key Words (pp. 90-91)

1. Ⓐ

2. Ⓑ

3. Ⓐ

4. Ⓑ

5. Ⓑ

6. Ⓐ

7. Ⓑ

8. Ⓐ

(p. 92)

Q What are metric system units based on?

A Metric system units are based on unchanging measures in nature.

Comprehension Check (p. 94)

1. Ⓑ

2. Ⓐ

3. False

4. True

5. body

6. standards, measure

7. Ⓒ

8. determine

Points to Remember (p. 95)

A. (from left to right)

Meter, length, weight, equator, liter, unchanging

B.

metric, nature, distance, divided, water, accurately

Unit 14 Calendars hen and Now

(p. 96)

Q How often does February have 29 days?

A It has 29 days once every four years.

(p. 97)

Q How long does it take for Earth to travel around the Sun?

A It takes 365.24 days for Earth to travel around the Sun.

Key Words (pp. 96-97)

1. Ⓑ

2. Ⓐ

3. Ⓑ

4. Ⓐ
5. Ⓐ
6. Ⓑ
7. Ⓐ
8. Ⓑ

(p. 98)

Q How does the Gregorian calendar accurately track time?

A It uses a leap year, but skips it three times every 400 years.

Comprehension Check (p. 100)

1. Ⓒ
2. Ⓒ
3. False
4. True
5. location
6. leap, four
7. Ⓑ
8. tracks

Points to Remember (p. 101)

A.

Egyptian Calendar: 2500

Julian Calendar: four, 365.25

Gregorian: three, accurate

B.

Earth, short, replaced, leap, skips, track

Making Connections (p. 102)

Unit 13: b-c-f

Unit 14: d-a-e

Unit 15 The Smog Free Project

(p. 104)

Q Why do you think the boy is wearing a mask?

A (Answers may vary.) I think he is wearing a mask because the air is dirty.

(p. 105)

Q1 How is the air in the park?

A1 The air is very clean.

Q2 Why do you think the woman is so happy?

A2 (Answers may vary.) I think she is happy because the air is clean.

Key Words (pp. 104-105)

1. Ⓐ
2. Ⓑ
3. Ⓐ
4. Ⓐ
5. Ⓑ
6. Ⓐ
7. Ⓑ
8. Ⓑ

(p. 106)

Q What do Smog Free Towers do?

A They suck up and purify smoggy air.

Comprehension Check (p. 108)

1. Ⓐ
2. Ⓑ
3. False
4. False
5. air, suck
6. cube, dust
7. Ⓑ
8. campaign

Points to Remember (p. 95)

A.

purifier, parks, vacuum, smoggy, filter, hour

B.

pollution, device, purify, installed, smog, support

Unit 16 The Zero-Waste Movement

(p. 110)

Q What is special about the store?

A Products are not kept in individual plastic packages. Instead, customers pour the products into their own reusable containers.

(p. 111)

Q1 Which set of products creates less waste?

A1 Set number 2 creates less waste.

Q2 Why do you think so?

A2 (Answers may vary.) I think so because the materials can easily be washed and used again.

Key Words (pp. 110-111)

1. Ⓑ
2. Ⓑ
3. Ⓐ
4. Ⓐ
5. Ⓐ
6. Ⓐ
7. Ⓐ
8. Ⓑ

(p. 112)

Q What two things do zero-wasters mainly do?

A They use less and reuse more.

Comprehension Check (p. 114)

1. Ⓒ
2. Ⓐ
3. False
4. True
5. zero
6. use, reuse
7. Ⓐ
8. prevents

Points to Remember (p. 115)

A.

Ways to Use Less: out, secondhand, own

Ways to Reuse More: reusable, compost, fix

B.

Movement, waste, necessary, Zero-wasters,
luxurious, leftover

Making Connections (p. 116)

Unit 15: f-a-e

Unit 16: c-d-b