Agriculture

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Express Publishing
The history of agriculture

Get ready!

1. Before you read the passage, talk about these questions.
   1. When did farming first begin in your country?
   2. What did farmers first grow in your country?

Chapter 1: The Development of Agriculture

Agriculture began in the area known as the Fertile Crescent. The area is a hot, dry desert. But it has two of the requirements for farming: good soil and a water supply.

Many early farmers used the Nile River as a water supply. The Nile River floods at the same time every year. Farmers planted crops before the floods. This helped their plants to survive in the desert. Later, farmers created irrigation ditches. They moved water from the Nile River to their fields. They could cultivate crops any time of the year and harvest extra food.

Producing extra food was important. Later, farmers fed animals with it. Those domesticated animals became another important part of agriculture.

Reading

2. Read the textbook passage. Then, mark the following statements as true (T) or false (F).
   1. Crops cannot grow in deserts.
   2. The Nile River floods every year.
   3. Farmers raised animals before plants.

Vocabulary

3. Match the words (1-6) with the definitions (A-F).
   1. agriculture
   2. crop
   3. cultivate
   4. produce
   5. domesticate
   6. plant

A. a large group of cultivated plants
B. to put seeds in soil
C. growing plants and raising animals
D. to make something
E. to raise a crop from seeding to harvest
F. to tame an animal

4. Read the sentence pair. Choose where the words best fit the blanks.
   1. water supply / irrigation
      A. The river is the farmer's _____________.
      B. ____________ helps farmers grow crops in areas with little rainfall.

   2. harvesting / farming
      A. ____________ includes raising animals and crops.
      B. Farmers wait until crops are mature to start _____________.

5. 🎧 Listen and read the textbook passage again. Then, say three things you have learnt from the text.
Listening

6 Listen to a conversation between a student and teacher in a history class. Choose the correct answers.

1 What is the conversation mainly about?
   A a way to predict floods
   B an early irrigation method
   C the number of early farmers
   D the most common early crops

2 How did farmers control water?
   A They put gates in ditches.
   B They filled ditches with dirt.
   C They carried water in buckets.
   D They planted far from the river.

7 Listen again and complete the conversation.

Student: 1 __________________, Mrs. Anderson. I have a question about the first farmers.

Teacher: Great. What is it?

Student: Well, they were in a desert. How did they irrigate their 2 ________?

Teacher: Oh, with 3 _________. They connected their fields and the Nile River.

Student: Okay. So, 4 ________ moved through the ditches to the fields.

Teacher: Exactly.

Student: Then, I have another question. How did they 5 ________ the water?

Teacher: The ditches had 6 __________. They opened and water flowed through.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Excuse me.

How did early farmers ...
They connected ...

Student A: You are a student learning about early agriculture. Ask Student B about:
- water supply
- watering fields
- controlling water

Student B: You are a History teacher. Answer Student A's questions.

Writing

9 Use the conversation from Task 8 to fill out the student's notes.

Name: ____________________________ Date: ________

Class: ____________________________

Subject: ____________________________

Farmers got water from ____________________________

Water came to the fields in ____________________________

They controlled water by ____________________________
Support your local farmers!

Come to the farmer’s market this Saturday, 8AM-3PM on Main Street. This year’s harvest is the best yet!

**JUNE 10**

**FRESH FOOD**
Buy fresh fruit and vegetables for a good price!

**Fruit:** Delicious melons, strawberries, and blueberries.

**Vegetables:**
Fresh broccoli, peas, and lettuce.
We sell tubers and legumes too!

*This week we have Thompson’s Granola. Thompson cereal crops are grown on a nearby farm.

**CLOTHING**
We offer some industrial crop products, such as hemp shoes, shirts, and hats.

WE HOPE TO SEE YOU ON SATURDAY!

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Get ready!

1. Before you read the passage, talk about these questions.
   1. What are your favorite fruits and vegetables?
   2. What non-food products come from plants?

Reading

2. Read the advertisement. Then, fill in the blanks with the correct items.

   1. **Available fruits:**

   2. **Available vegetables:**

   3. **Cereal products:**

   4. **Industrial crop products:**

Vocabulary

3. Match the words (1-6) with the definitions (A-F).

   1. harvest  
   2. legume  
   3. melon  
   4. tuber  
   5. cereal  
   6. farmer’s market

A. a crop that grows underground
B. a crop that produces grain
C. a crop that has pods
D. crops that have been gathered
E. a type of large, sweet fruit
F. a group of farmers selling crops
4 Check (√) the sentence that uses the underlined part correctly.

1. A. Legumes are a very popular fruit.
   B. Kevin likes to wear hemp clothing.

2. A. Many people prefer cereals because they have no seeds.
   B. Vegetables are used in many meals.

3. A. Most harvests grow completely underground.
   B. Fruit is popular because it is sweet.

4. A. Industrial crops are not eaten.
   B. Some tubers are used to make clothes.

5 🎧 Listen and read the advert again. What can someone find at the market?

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Can I help you?
I want some ...
How much are they?

Student A: You are at a farmer’s market. Talk to Student B about:
- three products
- prices

Student B: You are a farmer at a farmer’s market. Answer Student A’s questions.

Writing

9 Use the conversation from Task 8 to fill out the customer’s receipt.

FRANKLIN Farms

Date of Sale: ____________________

<table>
<thead>
<tr>
<th>Items Purchased</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Amount Due: ____________________

Farmer: Welcome to the farmer’s market. Can I 1 ___________ with something?

Customer: Yes, please. I want some fresh fruit.

Farmer: These 2 ___________ are perfect. We picked them yesterday.

Customer: Oh, good. And I’d like some 3 ___________, too. 4 ___________ are they?

Farmer: A three pound bag costs one dollar.

Customer: I’ll take a bag, thanks.

Farmer: Okay. Anything else today?

Customer: Yeah. I saw your ad for 5 ___________. Do you have that?

Farmer: Yes, we do. 6 ___________ are grown on a nearby farm.
Get ready!

1. Before you read the passage, talk about these questions.
   1. What types of meat come from animals?
   2. What other products come from animals?

More than a Meal

We rely on animals for a number of products. Some are more obvious than others. Animals’ milk and meat provide us with protein. We make clothing and furniture with wool and leather. In addition, there is a long list of animal by-products. We use them every day. But we don’t always know it. We render fat, or tallow, into tires, soaps, and candles. Marshmallows, buttons, and tape include bones and hooves. Wool is often used in carpet. Even baseballs use animal products.

Animal by-products are found in unexpected places. Thanks to rendering, very little goes to waste. Meat is just one of many products that we take from animals.

Reading

2. Read the magazine article. Then, choose the correct answers.
   1. What is the article mainly about?
      A. Animals that only produce meat
      B. The most popular types of meat
      C. Products made from animals
      D. Waste products of rendering
   2. Which of the following is NOT a by-product?
      A. fat
      B. bone
      C. hooves
      D. protein
   3. What is true of rendering?
      A. It limits waste.
      B. It is a by-product.
      C. It provides protein.
      D. It is in marshmallows.

Vocabulary

3. Read the sentence pair. Choose where the words best fit the blanks.
   1. wool / milk
      A. _______ is an important food source.
      B. Many clothes are made of ________.
   2. protein / leather
      A. _______ is often used to cover furniture.
      B. Plant products and meat contain ________.
   3. meat / by-products
      A. Humans have always used animals for ________.
      B. ________ are used in many common products.
4 Write a word that is similar in meaning to the underlined part.

1 Too much oily substance from plants and animals is unhealthy.  
   ________________

2 Hard materials that give a body structure are a by-product.  
   ____________

3 The hard feet of animals are used to make tape.  
   ____________

4 Soap is made by melting animal fat.  
   ________________

5 Fat that is used to make candles is also used in soap.  
   ________________

5 Listen and read the magazine article again. What happens to animal fat before it is used to produce soaps?

Listening

6 Listen to a conversation between a manager and a developer at a meeting. Mark the following statements as true (T) or false (F).

1 ______ The new product has no extra chemicals.
2 ______ The all-natural soap will be expensive.
3 ______ Tallow is rarely used in soap.

7 Listen again and complete the conversation.

Manager: 1 ________________. We have a new product to sell. Miss Smith will tell us about it.

Developer: Okay. Customers want natural products, right? So we made an all-natural soap.

Manager: What 2 ________________ by “all-natural”?

Developer: There are no extra 3 _____________. It’s just the basic ingredients.

Manager: Sounds interesting. Will it be 4 ____________?

Developer: No. After all, the main ingredient is tallow.

Manager: 5 ________________. What’s tallow?

Developer: Oh, tallow is basically animal fat. It’s used in 6 ________________.

Manager: And it’s cheap?

Developer: Very. It’s a by-product that few people use.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

We have a new product.
What do you mean by ...
The main ingredient is ...

Student A: You are a salesman. Ask Student B about:
- a new product
- ingredients
- price

Student B: You created a new product that uses animal by-products. Answer Student A’s questions.

Writing

9 Use the conversation from Task 8 and the magazine article to fill out the product description.

NEW PRODUCT NOTES

Product: ____________________________

Description/Special Qualities: ____________________________

Main Ingredient: ____________________________

Expected Costs: ____________________________
CultiAdvice

Dear Green Thumb:
My tomatoes are dying. They get plenty of sun and water. What am I doing wrong? — Tom G.

Dear Tom:
Check the soil. Tomato roots need the right amount of water and air. They don’t do well in sand or clay. Both have the wrong soil structure. Sand particles are too loose to hold enough water. Dense clay prevents aeration. You need a soil texture in between those extremes. Loam with high silt is usually good.
The other issue is nutrients. A soil’s parent material determines what nutrients are in it. You can improve the nutrients by adding humus.

Get ready!
1. Before you read the passage, talk about these questions.
   1. What kind of soil is there in your country?
   2. Why is good soil important?

Reading
2. Read the newspaper advice column. Then, mark the following statements as true (T) or false (F).
   1. Tomatoes grow well in clay.
   2. Aeration does not occur in clay.
   3. Humus adds nutrients to soil.

Vocabulary
3. Fill in the blanks with the correct words and phrases from the word bank.

Word Bank
aeration clay loam humus soil structures

1. Some ________ hold more water than others.
2. Crops don’t grow well in pure ________ soil.
3. Use ________ to add nutrients to soil.
4. ________ provides roots with air.
5. ________ is a mix of three soil types.

4. Match the words (1-6) with the definitions (A-F).
   1. ________
   2. ________
   3. ________
   4. ________
   5. ________
   6. ________

A. a material made of small pieces of rock and mineral
B. a material that is deposited by water
C. rock and minerals that eventually form soil
D. a layer of material that plants grow in
E. the size of particles in a soil
F. having a lot of material in a small space
Listen and read the newspaper advice column again. What do you need to take into consideration when planting tomatoes?

Listening

Listen to a conversation between a customer and clerk in a plant supply store. Choose the correct answers.

1. What is the customer buying at the store?
   A. soil  
   B. pots  
   C. houseplants  
   D. vegetables

2. Why does the clerk recommend Wonder Grow?
   A. It contains no clay.  
   B. It has dense soil structure.  
   C. It supports vegetable growth.  
   D. It has good aeration and holds water.

Listen again and complete the conversation.

Clerk: Hi. Can I help you with anything?
Customer: Yes. I need some __________.
Clerk: Is this for indoor or outdoor plants?
Customer: It's for indoor plants.
Clerk: What kinds of plants is it for? Houseplants? Flowering plants? Vegetables?
Customer: I have some spider plants. They need to be put in __________.
Clerk: __________, you should use Wonder Grow. It has __________ and __________ well, too.
Customer: Okay, 6 __________. Thanks for your help.

Speaking

With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I need some ...
What kind of plants is it for?
You should use ...

Student A: You work in a plant supply store. Talk to Student B about:
- type of plants
- soil types
- soil description

Student B: You need soil for your plants. Answer Student A's questions.

Writing

Use the conversation from Task 8 and the newspaper advice column to fill out the product description.

Product name: __________

__________ can be used for __________ or __________.

It supports __________ and __________ growth.

Best of all, it has __________ and __________ better than any product.
Get ready!

1 Before you read the passage, talk about these questions.
1 Where do farmers get water?
2 How do water shortages hurt farmers?

Reading

2 Read the article from the San Fernando Sun newspaper. Then, choose the correct answers.

1 What is the article mostly about?
   A crop shortage
   B a lack of rainfall
   C new irrigation methods
   D new types of crops

2 According to the article, what will cause a water shortage in the future?
   A raising rain-fed crops
   B using extra groundwater
   C farming in arid locations
   D planting crops in the mountains

3 What is true of the peaches and nectarines?
   A They will not be damaged by the drought.
   B They will be more expensive this year.
   C They will need more water than most fruits.
   D They will be grown by out of town farmers.

Vocabulary

3 Read the sentence pair. Choose where the words best fit the blanks.

1 ditch / groundwater
   A Irrigate the crops by digging a ___________.
   B Areas with a lot of ___________ are ideal for farming.

2 shortage / rainfall
   A With so much ___________, Dawn didn’t have to water her plants.
   B Many crops died due to the water ___________.

3 rain-fed / drought-resistant
   A Linda prefers ___________ crops since she lives in an arid region.
   B Andrew doesn’t irrigate; his crops are ___________.

DROUGHT CONTINUES

San Fernando Sun

SAN FERNANDO — The Central Valley’s current drought is the worst in 50 years. It started five years ago. Average rainfall in the valley is down 35%. Less rainfall in the mountains also limits the water cycle in this already arid region as well.

Many rain-fed crops are dying. Recently, many farmers dug ditches to irrigate them. They used extra groundwater from their wells, too. Many experts say that will create water shortages in the future.

Expect higher prices for many fruits and vegetables this summer. Peaches and nectarines are an exception. Local farmers are growing drought-resistant varieties of those crops.
Match the words (1-4) with the definitions (A-D).

1. __ water cycle
2. __ drought
3. __ arid
4. __ irrigate

A. to guide water to plants
B. the pattern of water moving and changing form
C. receiving little rainfall
D. a period of unusual dryness

Listen and read the article from the San Fernando Sun newspaper again. Why has the fact that there has been less rainfall in the mountains affected the region?

Listening

Listen to a conversation between two farmers. Mark the following statements as true (T) or false (F).

1. __ The man's vegetable crop died.
2. __ The woman might expand her irrigation system.
3. __ The woman does not have drought-resistant crops.

Listen again and complete the conversation.

Farmer 1: I'm worried. My vegetables won't __________ if this drought continues.
Farmer 2: I feel the same way. My lettuce and cucumbers aren't doing well.
Farmer 1: What are you going to __________ _________ it?
Farmer 2: I might __________ my irrigation system.
Farmer 1: That __________ very expensive.
Farmer 2: I agree. But I don't know what else to do.
Farmer 1: You could always plant __________ vegetables next year.
Farmer 2: That's a good idea. It will cost less. But it __________ this year.

Speaking

With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

My __ aren’t doing well.
You could always __.
That's a good idea.

Student A: You are a farmer during a drought. Talk to Student B about:

- your crops
- irrigation
- other solutions

Student B: You are a farmer during a drought. Discuss solutions with Student A.

Writing

Use the conversation from Task 8 to fill out the farm report.

FARM REPORT

Date: __________

Crops Planted: ______________________

Crop Condition: ______________________

Water Problems: ______________________

Possible Solutions: ______________________
Seeds

Cold-weather hybrid broccoli. Bred for superior seed vigor. Seedlings survive in temperatures down to 37°F.

Germination: Soak seeds in water overnight to remove hard coats and end dormancy. Place in 70°F soil to germinate.

Location: Sow in a place that gets full sun.

Sowing method: Use a pen or similar shaped object to prepare holes 0.5 cm deep, 2 cm apart. Drop one seed per hole. Cover with soil. Water.

Days to sprout: 7-14

Days to maturity: 58

Harvest: Cut buds before they flower.

Price: $0.5 / 100 g, packet

Get ready!

1. Before you read the passage, talk about these questions.
   1. How do farmers plant seeds?
   2. What do seeds need to grow?

Reading

2. Read the page from The New Gardener's Seed catalog. Then, mark the following statements as true (T) or false (F).

   1. The seedlings can survive below 37°F.
   2. The broccoli seeds have hard coats.
   3. The seeds will sprout within two weeks.

Vocabulary

3. Match the words (1-6) with the definitions (A-F).

   1. hard coat
   2. germinate
   3. seedling
   4. seed vigor
   5. hybrid
   6. sow

A. the firm outer layer of a seed
B. to sprout from a seed
C. to plant seeds
D. made by parents of different breeds
E. a young plant
F. the strength and survivability of a seed

4. Write a word that is similar in meaning to the underlined part.

   1. Farmers plant small objects from which plants grow in the spring.
      s ______ d ______
   2. Each plant has a different number of days until it can be harvested.
      d ______ t ______ m a ______ y
   3. Some plants require special ways in which seeds are planted.
      s o w ______ m e ______
   4. To plant a large crop, you need a large quantity order of seeds.
      b ______ k
   5. Some plants produce seeds that pass the winter in an inactive state.
      s o r ______ y
5. Listen and read the page from The New Gardener’s Seed catalog again. How many weeks will it take for the broccoli to be edible?

Listening
6. Listen to a conversation between a customer and a farmer. Mark the following statements as true (T) or false (F).

1. The customer wants watermelon seeds. T/F
2. The farmer does not have the seed varieties that the customer wants. T/F
3. The customer will receive 10% off. T/F

7. Listen again and complete the conversation.

Farmer: Hi there. Welcome to Braxton Farms. How can I help you?
Customer: Hi, I’d like to buy some seeds.
Farmer: Great. What varieties are you interested in?
Customer: I want some 1__________, the Super King. And some cantaloupe, the Royal Gold.
Farmer: I’m sorry. I 2___________ that.
Customer: Super King watermelon and Royal Gold cantaloupe.
Farmer: 3___________ . Also, we have a special today on 4__________ orders. You get 10% off.
Customer: 5___________ . I only need two packets of each.
Farmer: Well, they 6___________ packs of 3 for $3.78.

Speaking
8. With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:
I’d like to buy some seeds.
What varieties are you interested in?
I only need ...

Student A: You are a farmer selling seeds. Talk to Student B about:
- seed varieties
- discounts
- total price

Student B: You are buying seeds. Answer Student A’s questions.

Writing
9. Use the conversation from Task 8 to fill out the receipt.

BRAXTON FARMS
Sales Receipt

Seed Variety: ______________________
Number of packets: ______________________
Seed Variety: ______________________
Number of packets: ______________________
Discount? Y / N
Total Price: ______________________
Get ready!

1. Before you read the passage, talk about these questions.
   1. How do plants change as they grow?
   2. What function does each part of a plant serve?

Reading

2. Read the magazine article. Then, mark the following statements as true (T) or false (F).
   1. No plant has more protein than quinoa.
   2. Quinoa sprouts quickly and then slows.
   3. Farmers who grow quinoa harvest its seeds.

Vocabulary

3. Match the words (1-4) with the definitions (A-D).
   1. photosynthesis
   2. branch
   3. stalk
   4. quinoa

   A. a narrow part that supports leaves
   B. a chemical process that produces energy
   C. a limb of a plant
   D. a strong plant that is grown for its seeds

4. Fill in the blanks with the correct words and phrases from the word bank.

   word bank:
   roots  growth chart  seedhead
   leaves  buds  flowering

   1. Those ________ will grow into flowers.
   2. Plants absorb nutrients from the soil with their ________.
   3. Photosynthesis occurs in the ________ of a plant.
   4. Tom keeps a detailed ________ of his crops to test how effective his fertilizers are.
   5. ________ plants usually produce colorful blooms in the spring.
   6. The ________ of a quinoa plant contains the protein-rich harvest.
5 Listen and read the magazine article again. Why do gardeners like quinoa?

Listening
6 Listen to a conversation between two farmers discussing plant growth. Mark the following statements as true (T) or false (F).

1 The man planted quinoa for the first time.
2 The woman’s crops did not grow.
3 The woman planted quinoa on thousands of acres.

7 Listen again and complete the conversation.

Farmer 1: Susan, you planted quinoa for the first time this year, 1 ______ .
Farmer 2: I did. I was worried 2 _______. But it seems okay now.
Farmer 1: Worried? Why?
Farmer 2: It was growing so slowly. But it just 3 _______.
Farmer 1: Oh, so they’re 4 _______.
Farmer 2: Yeah, they are. We expect to harvest them next week.
Farmer 1: That’s great. How much do you expect to harvest?
Farmer 2: Well, we only planted a 5 _______. So probably two thousand pounds 6 _______.

Speaking
8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

You planted quinoa?
Worried? Why?
How much do you expect to harvest?

Student A: You are a farmer. Ask Student B about planting quinoa for the first time. Talk about:
• growth rate
• concerns
• expected harvest

Student B: You are a farmer. Answer Student A’s questions.

Writing
9 Use the conversation from Task 8 to fill out the farmers’ notes on the first quinoa harvest.

Quinoa Harvest Summary

Acres Planted: ______________________
Summary of Crop Growth: ______________
Expected Harvest: ____________________
Actual Harvest: ______________________
REYNOLDS HARVESTING

Harvest Summary Report

Crops: Hay and Wheat

<table>
<thead>
<tr>
<th>Harvest Date</th>
<th>Field # / Crop</th>
<th>Yield</th>
<th>Package Type</th>
<th>Package Weight</th>
<th>Rained On</th>
</tr>
</thead>
<tbody>
<tr>
<td>06/29</td>
<td>1 / Hay</td>
<td>0.5 ton / acre</td>
<td>Round Bale</td>
<td>0.6 tons</td>
<td>No</td>
</tr>
<tr>
<td>08/16</td>
<td>2 / Wheat</td>
<td>30 bushels / acre</td>
<td>Bushel</td>
<td>600 bushels</td>
<td>Yes</td>
</tr>
<tr>
<td>10/02</td>
<td>3 / Wheat</td>
<td>80 bushels / acre</td>
<td>Bushel</td>
<td>1600 bushels</td>
<td>No</td>
</tr>
</tbody>
</table>

Notes: Field #1 had the most abundant yield. Field #2 was more difficult. It matured later than expected. The farmers reaped several bushels too early. We also experienced an equipment problem during threshing. Some of the hay was not properly separated from the chaff. Field #3 was more successful. Inspectors discarded nearly a ton of unacceptable material from the stacks. Most came out of field #2.

Vocabulary

3 Read the sentence pair. Choose where the words best fit the blanks.

1 reap / mature
A ___________ the crops in six months.
B Some plants take longer to ___________.

2 chaff / harvest
A The annual ___________ is next month.
B This machine removes the unusable ___________.

2 tons / bales
A There were many more ___________ of hay this year.
B How many ___________ of wheat were harvested?

Get ready!

1 Before you read the passage, talk about these questions.

1 When do farmers harvest crops in your country?
2 How do farmers gather crops during harvest?

Reading

2 Read the harvest summary report. Then, mark the following statements as true (T) or false (F).

1 __ The crops all have the same package type.
2 __ None of the crops were rained on.
3 __ Field #2 produced the smallest amount of wheat.

4 Write a word that is similar in meaning to the underlined part.

1 This year's quantity of crops produced was twice last year's. y __ d
2 Removing unusable parts from wheat makes it edible. h __ s __ n
3 Instead of gathering the crops in bales, we left them in organized piles. t a ___
4 When you go to the market, get 2 units of measurement equal to 9.3 Gallons of grain. b __ s __
5 When you place an order, tell them what form of packaging to use. p __ t ___
5 Listen and read the harvest summary report again. What problems did farmers experience with this year's harvest?

Listening
6 Listen to a conversation between two farmers discussing a harvest. Choose the correct answers.

1 How does the man feel about the harvest?
   A worried  C confused  B pleased  D disappointed

2 What can you infer about the farmers' planting method?
   A It was unsuccessful.
   B It created a smaller harvest.
   C It had not been used before.
   D It involved several types of crops.

7 Listen again and complete the conversation.

Farmer 1: Cathy, what's the 1 ______ on the latest corn harvest?
Farmer 2: Well, we have fifteen tons for immediate sale.
Farmer 1: Fifteen tons? 1 ______ tons did we sell from the last field?
Farmer 2: Um, let's see. We sold eleven tons from the last field.
Farmer 1: That's 3 ______! Your new 4 ______ is working nicely.
Farmer 2: Yes, it is. We also expect to approve another five tons by Friday.
Farmer 1: 5 ______ , Cathy. This is our 6 ______ harvest ever.

Speaking
8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:
We have ... for sale.
We will approve ... by ...
This is our ... harvest

Student A: You are a farmer. Talk to Student B about:
   • a crop report
   • tons sold
   • your opinion of harvest

Student B: You are a farmer. Answer Student A's questions.

Writing
9 Use the conversation from Task 8 to fill out the crop report.

<table>
<thead>
<tr>
<th>Date</th>
<th>Crop</th>
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To: t.garcia@garciafarms.com
From: c.thompson@garciafarms.com
Subject: Storage Problem

Mr. Garcia,

We found a problem in bunker silo number 13. Mold is growing near the south opening. I suspect two causes. First, there was improper leveling. Too much moisture gathered at one end. Secondly, the silo has too much ventilation. It can't dry and cool the silage.

As a result, most of the silage is destroyed. The rest is in silage bags for now. Number 13 is closed until we remove the mold. Should we use one of the tower silos for storage in the meantime? We should also discuss how to fix number 13. I don't want this to happen again.

Thank you,
Carla Thompson, Storage Manager

Get ready!

1. Before you read the passage, talk about these questions.
   1. How do farmers store crops in your country?
   2. How can stored crops be damaged?

Reading

2. Read the email. Then, complete the summary of the email.

Workers discovered mold in 1. There were two causes: improper 2 and too much 3. Most of the silage was destroyed. The rest is in 4 bags. The workers might store silage in the 5 silos.

Vocabulary

3. Read the sentence pair. Choose where the words best fit the blanks.

1. cool / dry
   A. ___________ the grain or the heat will ruin it.
   B. After the harvest, ___________ the wet crops.

2. storage / mold
   A. Nancy is worried about getting ___________ in her silo.
   B. Jim sold some of the grain and put the rest in ___________.

3. silage bag / ventilation
   A. There's a problem with the silo; use a ___________.
   B. Don's storage facilities have excellent ___________.


Match the words (1-4) with the definitions (A-D).
1 _ leveling 3 _ tower silo
2 _ moisture 4 _ bunker silo
A flattening the top of a pile
B a long trench used to store grain
C wetness
D a tall storage facility

Listen and read the email again. Why is Carla Thompson contacting Mr. Garcia?

Listen to a conversation between a farm owner and a storage manager. Mark the following statements as true (T) or false (F).
1 _ A machine improperly leveled the grain.
2 _ The new assistant will receive more training.
3 _ Workers will use silage bags until the ventilation works.

Listen again and complete the conversation.

Manager: Mr. Garcia, did you get my email about the bunker silo?
Owner: I did. How bad is it?
Manager: It’s pretty bad. There’s mold
1 ______________ ____________________________ .
Owner: How did this happen?
Manager: It was our 2 ______________ ____________________________ . He wasn’t trained on 3 ______________ .
Owner: Well, 4 ______________ ____________________________ he gets trained.
Manager: Of course. We’re also checking the 5 ______________ system. There’s too much air moving in there.
Owner: Use the 6 ______________ ____________________________ until you fix it. And keep me updated.

With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:
How bad is it?
How did this happen?
Use the … until …

Student A: You are a farm owner. Talk to Student B about:
- mold in a silo
- causes
- storage

Student B: You are a storage manager. Answer Student A’s questions.

Use the conversation from Task 8 and the email to fill out the storage manager’s message to farm workers.

ATTENTION
Bunker silo 13 ________________ .
This was caused by ________________ and ________________ .
Use ________________ until it is fixed.
There is training on ________________ for all new employees this week.
Get ready!

1 Before you read the passage, talk about these questions.
   1. What types of food do farm animals eat?
   2. How does feed affect animals’ growth?

Reading

2 Read the job posting. Then, mark the following statements as true (T) or false (F).
   1. Hillford Farms has fifteen varieties of chicken.
   2. The Hillford Farms daily ration includes fats.
   3. Applicants need a degree in poultry management.

Vocabulary

3 Match the words (1-5) with the definitions (A-E).
   1. nutrient
   2. feed
   3. poultry
   4. animal nutritionist
   5. vitamin

A an organic substance found in food that is essential for good health
B food given to animals
C a person who makes healthy food for animals
D any organic or inorganic substance that provides nourishment
E domesticated birds such as chickens and turkeys

4 Write a word that is similar in meaning to the underlined part.
   1. Henry increased the daily amount of food.
   2. Inorganic substances like potassium are essential for good health.
   3. Besides sleep and shelter, the process of nourishing an organism is the most important thing that every organism needs.
   4. Animals need a sufficient amount of substances used to make energy in their diet.
5 Listen and read the job posting again. What will be the main duties of the animal nutritionist?

Listening

6 Listen to a conversation between an interviewer and a job applicant. Choose the correct answers.

1 What does the applicant make at AGM Industries?
   A low-fat chicken feed
   B high-protein pig feed
   C low-carbohydrate pig feed
   D high-carbohydrate chicken feed

2 What requirement does the applicant meet?
   A He has one year of experience.
   B He has worked with chickens.
   C He has created special feeds.
   D He has worked for Hilford Farms.

7 Listen again and complete the conversation.

Interviewer: Good morning. Mr. Jordan, I'm Terry Riley.

Job applicant: 1 you, Miss Riley.

Interviewer: Nice to meet you too. Please, 2 and we'll get started.

Job applicant: Thank you. Did you get my resume?

Interviewer: Yes, I did. It looks very good. 3 your work at AGM Industries.

Job applicant: Well, I work at their 4 . I create special formulas for high-protein feed.

Interviewer: Interesting. Now, applicants must have experience with 5 . Have you ever worked with 6 ?

Job applicant: Yes, in my previous job. It was at Reynolds Farms.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Nice to meet you.
Tell me about...
Have you ever worked with...

Student A: You are interviewing a job applicant. Talk to Student B about:
   • resume
   • current job
   • experience

Student B: You are interviewing for a job. Answer Student A's questions.

Writing

9 Use the conversation from Task 8 and the job posting to fill out the applicant's resume.

Name: __________________________

Position applying for: __________________________

Current Position: __________________________

Responsibilities: __________________________

Former Position: __________________________

Responsibilities: __________________________

Name: __________________________
PROPER ANIMAL HOUSING
METHODS
May 1, 2011 by Ben Keller

Here are some tips for how to properly house animals. I will use my hog barn as an example. The ideas apply to coops and pens as well. Animals with proper housing are in their comfort zones. They are healthier and more productive than animals with poor housing.

First, make sure the enclosure matches the space requirements of the animal. You also need to know the animals' critical temperatures. Install automated heating and cooling to prevent heat stress and cold stress. Don't forget to have a good waste management system. Slotted floors provide a simple way to keep your animal's living space clean.

Get ready!

1 Before you read the passage, talk about these questions.
1. How are animals housed in your country?
2. How do workers maintain animal housing structures?

Reading

2 Read the page from a farming blog. Then, mark the following statements as true (T) or false (F).
1. The author raises poultry.
2. Housing affects animals' productivity.

Vocabulary

3 Read the sentence pair. Choose where the words best fit the blanks.

1. coop / cold stress
   A. The chickens live in a separate ________.
   B. Install a heater to prevent ________.

2. heat stress / pen
   A. During the summer, ________ is a problem.
   B. Pigs do best if they are kept in their own ________.

3. slotted floor / waste management
   A. ________ is essential for odor control.
   B. A ________ helps air to circulate.
4. Match the words (1-4) with the definitions (A-D).

1. __ barn
2. __ comfort zone
3. __ critical temperature
4. __ space requirement

A. conditions under which an animal is comfortable
B. a structure used to house animals
C. the amount of space that an animal needs
D. a temperature that must be maintained

5. Listen and read the page from a farming blog again. Apart from proper housing, what else do animals require to be productive?

6. Listen to a conversation between two farmers discussing animal housing. Place a check (✓) next to reasons they need a new barn.

1. [ ] They will have more animals.
2. [ ] The barn gets too cold in winter.
3. [ ] The barn has poor ventilation.
4. [ ] They want to add slotted floors.
5. [ ] The barn doesn’t meet space requirements.

7. Listen again and complete the conversation.

Farmer 1: I think we need a new barn.
Farmer 2: What’s wrong with this one?
Farmer 1: First, the __________ isn’t very good.
Farmer 2: I agree with you there. It’s 2 ____________ __________ in here during the ____________.
Farmer 1: And don’t forget, we’re getting ________________ in May.
Farmer 2: That’s a 5 ____________ : We’ll need more space then.
Farmer 1: I’ll talk with a builder tomorrow.
Farmer 2: Let’s estimate the 6 ____________ first.

8. Speaking

With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I think we need a new barn.
I agree with you there.
We’ll need more space.

Student A: You are a farmer. You want a new barn. Talk to Student B about:
- a new barn
- temperature
- animals and space

Student B: You work with Student A on a farm. Answer Student A’s questions.

9. Writing

Use the conversation from Task 8 to fill out the farmers’ letter to a builder.

Dear Mr. Haynes,

We need __________________ .
Our current barn __________________ .
And we are getting __________________ .
The barn won’t meet __________________ .
We need the new barn __________________ .
It should be able to house __________________ .
How much __________________ ?

Thanks,

__________________________
Get ready!
1. Before you read the passage, talk about these questions.
   1. What traits do farmers want in different animals?
   2. How often do different animals breed?

Reading
2. Read the notice. Then, mark the following statements as true (T) or false (F).
   1. The company sells high quality bulls.  
   2. The company helps customers select desirable traits.  
   3. The computer print out details the breeding value of the steers.

Vocabulary
3. Fill in the blanks with the correct words and phrases from the word bank.

Word Bank
breeding value  progeny  rate of gain  heritability

1. Healthy breeders usually produce healthy ____________.
2. Laura's breeding bulls have high _____________.
3. This year's calves have a lower _____________.
4. Each trait has a different degree of _____________.

4. Match the words (1-5) with the definitions (A-E).
   1. breeding  4. EPD
   2. pedigree  5. sire summary
   3. trait selection

A. a line of ancestors
B. the act of mating animals
C. a rating of the likelihood that a trait will be inherited
D. a list of predictions about the passage of traits
E. the act of breeding to achieve specific traits
5 ✎ Listen and read the notice again. What does the cattle breeding service claim that it can predict?

Listening
6 ✎ Listen to a conversation between a breeder and a client. Choose the correct answers.

1. What trait does the client want the offspring to have?
   - A strong muscles
   - B high rate of gain
   - C higher milk production
   - D increased heritability

2. What does the client ask the breeder to provide?
   - A an EPD
   - B a pedigree
   - C a discount
   - D a sire summary

7 ✎ Listen again and complete the conversation.

Breeder: Here are pictures of all of our bulls. What traits do you want in the offspring?
Client: Well, I have a dairy herd. So I'd like to increase 1 ____________.
Breeder: This Holstein 2 ____________ you. Many of his progeny are prize milk cows.
Client: Really! Can I see his 3 ____________?
Breeder: 4 _____________. I'll get you a copy.
Client: How much do you charge for breeding?
Breeder: 5 _____________. I give a discount for more than twenty cows.
Client: I see. That's 6 _____________.

Speaking
8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:
What traits do you want?
I'd like to increase ...
How much do you charge for breeding?

Student A: You are a cattle breeder. Talk to Student B about:
- traits
- progeny
- discounts

Student B: You want to breed your cattle. Answer Student A's questions.

Writing
9 Use the conversation from Task 8 to fill out the order with the breeder.

Tom's CATTLE BREEDING

Order 138

Customer name: ________________________________
Type of farm: ________________________________
Traits desired: ________________________________

Paperwork requested: ________________________________
Number of cows: ________________________________
Discount? Y / N
Get ready!

1 Before you read the passage, talk about these questions.
   1 What are common slaughter methods?
   2 What are the challenges of slaughtering and processing?

Reading

2 Read the website. Then, choose the correct answers.

   1 Who slaughters the animals at Jacobson's?
      A the animals' owners
      B professional butchers
      C the company's owner
      D a meat inspector

   2 What are Jacobson's cut fees based on?
      A type of animal
      B weight of the animal
      C health of the animal
      D time to process the animal

   3 What is NOT a service offered by the company?
      A treating hides
      B making pet food
      C inspection of animals
      D delivery of meat

Vocabulary

3 Write a word that is similar in meaning to the underlined part.

   1 When the animals are big enough they are killed for food or manufacture.
      s _ _ _ g h _ _ _ _

   2 Most slaughterhouses charge extra fees to prepare animals for eating or manufacturing.
      f _ _ c _ _

   3 Jonathon sent 50 animals to the slaughterhouse.
      _ _ _ d

   4 Jackie learned how to use animal skins to make traditional clothing.
      _ i _ _

   5 Mr. Randall requested several different parts of meat.
      _ _ _ s
4 Fill in the blanks with the correct words and phrases from the word bank.

**Word Bank**
butchering  kill fee  humane  inspected  offal

1. Wendell's Slaughterhouse has a lower _________.
2. Slaughterhouses must use _________.
3. _________ is often used to make other products.
4. Each animal must be _________ before slaughter.
5. Carol thinks the cattle aren't ready for _________.

5 🎧 Listen and read the website again. What happens to the parts of animals that are inedible for humans?

**Speaking**

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

**USE LANGUAGE SUCH AS:**

I have _______ that I need slaughtered.

What's your kill fee?

Do you do cuts?

**Student A:** You have animals you need slaughtered. Talk to Student B about:
- type of animal
- kill fees
- cuts

**Student B:** You are a butcher. Answer Student A's questions.

**Writing**

9 Use the conversation from Task 8 and the website to fill out the order summary.

**Jacobson's Butchering Co.**

Date: ____________

Type of animal: ____________

Number of head: ____________

Kill fee: ____________

Cuts requested? Y / N

Cut price ____________ per pound

Appointment scheduled for: ____________
Get ready!

1. Before you read the passage, talk about these questions.
   1. What equipment is used for planting in your country?
   2. How has modern equipment changed farming?

Reading

2. Read the newspaper advertisements. Then, mark the following statements as true (T) or false (F).

   1. The tractor has a special price with the purchase of other items.
   2. The broadcast seeder is used to prepare fields.
   3. The seed drill ad claims to protect the buyer's back.

Vocabulary

3. Write a word that is similar in meaning to the underlined part.

   1. That field has a lot of weeds; use the tool that breaks apart soil and weeds.
   2. Eric is plowing the field with his new that breaks apart soil and smooths the ground.
   3. She wants a device attached to a tractor that goes deep in the earth to turn soil.
   4. Paul got a new device pulled behind a tractor that lays down seeds in rows and covers them.
   5. Plant the seedlings with the device pulled behind a tractor that places small plants in the soil.

4. Match the words (1-6) with their definitions (A-F).

   1. rotiller
   2. cultipacker
   3. tractor
   4. stone picker
   5. broadcast seeder
   6. seed drill

   A. a device that spreads seeds and fertilizer over a field
   B. a device pulled by a tractor that deposits seeds in the ground
   C. a machine that turns over soil
   D. a device that separates stones and soil
   E. a vehicle that pulls farm equipment
   F. a machine that flattens soil
Listen and read the newspaper advertisements again. What do the advertisements for farming equipment all have in common?

**Listening**

Listen to a conversation between a seller and a caller responding to a used-equipment ad. Choose the correct answers.

1. What equipment is the caller interested in?
   - A a tractor
   - B a rototiller
   - C a stone picker
   - D a transplanter

2. Why doesn't the buyer purchase the equipment?
   - A It is too small to move his rocks.
   - B Someone else bought it already.
   - C It is too expensive for a used item.
   - D He decided to buy a new one instead.

Listen again and complete the conversation.

**Speaking**

With a partner, act out the roles below based on Task 7. Then, switch roles.

**USE LANGUAGE SUCH AS:**

- I'm calling about ...
- It's in ... condition.
- How much is it?

**Student A:** You want to buy a piece of equipment. Talk to Student B about:

- type of equipment
- condition
- price

**Student B:** You are selling a piece of farm equipment. Answer Student A's questions.

**Writing**

Use the conversation from Task 8 and the advertisement to fill out the advertisement.

**FOR SALE**  
**Farmer's Weekly Classifieds**

**Equipment for sale:**

**Condition:**

**Used for:**

**Price:**
Get ready!

1. Before you read the passage, talk about these questions.
   1. What types of equipment are used in harvesting?
   2. What are the challenges of harvesting crops?

Reading

2. Read the website. Then, mark the following statements as true (T) or false (F).
   1. Customers can purchase grain from Finneman’s.
   2. Silage is made from plant remains.
   3. Finneman’s can condition wet hay.

Vocabulary

3. Match the words (1-5) with the definitions (A-E).
   1. chaser bin
   2. baler
   3. gleaner
   4. combine harvester
   5. forage harvester

A. A machine that harvests crops of grain
B. A harvest machine that does not use gas
C. A cart used to carry grain from a field to storage
D. A device that bundles hay
E. A device that cuts up plants for use as silage

4. Write a word that is similar in meaning to the underlined part.
   1. Grain is easier to unload with an angled cart that is pulled behind a tractor.
   2. Don’t forget the device that cuts hay so it will dry quickly.
   3. The moving strip of material that transports objects to other areas moves grain from here to the other side of the barn.
   4. The new device that moves grain from trucks and carts into storage bins made the harvest much faster.
Listen and read the website again. How does Finneman's make moving grain easy?

Listening

Listen to a conversation between a farmer and an assistant. Choose the correct answers.

1. What is the man worried about?
   A. The grain auger is not working.
   B. The gravity wagons will fill quickly.
   C. The combine harvesters are too slow.
   D. The tractor cannot pull the wagons.

2. What does the boss want done by 3:00?
   A. the fields completely harvested
   B. the grain emptied out of the wagons
   C. the equipment out in the field
   D. the combine harvester hooked to the trucks

Listen again and complete the conversation.

Farmer: Are we ready to start harvesting, Jessica?
Assistant: I think so. The 1______ are in the field already.
Farmer: Good. What about the wagons?
Assistant: The 2______ are attached to the tractor. 3______.
Farmer: Great, but we only have three wagons. They'll 4______.
Assistant: I thought of that. I have the 5______ ready too.
Farmer: Excellent. I want these 6______ by three o'clock.
Assistant: Okay, boss. I'll let everyone know.

Speaking

With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Are we ready to start harvesting?
What about the ...?
I have the ... ready, too.

Student A: You own a harvesting company. You are about to start a harvest. Talk to Student A about:
- equipment being used
- possible problems
- time to finish

Student B: You are an assistant at a harvesting company. Answer Student A's questions.

Writing

Use the conversation from Task 8 to fill out the harvesting company's report.

Finneman's Harvesting
BILL FOR SERVICES

Equipment Used: ____________________________
Problem: ____________________________
Solution: ____________________________
Time finished: ____________________________