**Unit 1 What’s the Temperature?**

**Listen to the audio and fill in the blanks. Track 03**

(1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ tell us when it is hot or cold. They tell us the (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ temperature. We use them in our daily lives.

How do they (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_?

Can we make our own thermometer?

Let’s make a thermometer with everyday (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Step 1. Pour water into a small (5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and add a few drops of food coloring.

Step 2. (6)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a small hole in the lid.

Step 3. Close the lid. Put the straw (7)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the hole so it touches the water. Seal it with clay.

Step 4. Draw (8)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ lines on a piece of paper and put it on the (9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

What did we see?

When the (10)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ was warm, the water went up inside the straw.

When the temperature was cold, the water went (11)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ into the bottle.

How does it work? (12)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ increase when they meet something warm.

The water moves up the straw. Water (13)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ when it meets something cold. So, it (14)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ down the straw.

The thermometer showed us the (15)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in temperature.

**Unit 2 James Feels Hot**

**Listen to the audio and fill in the blanks. Track 06**

James (1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. He feels sick.

“Mom, my forehead is too (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!” he says.

Mom takes a thermometer out of a (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

She checks his (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It’s normal.

“You seem okay,” she says.

James looks at the (5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. “Mom, what’s the red stuff (6)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_?”

Mom says, “It’s alcohol. (7)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ changes its volume, so it goes up and down (8)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. For this reason, alcohol is used in thermometers.

“There are many (9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of thermometers. This one measures your (10)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ temperature. I also use one in the (11)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for cooking. There are thermometers in (12)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gardens and hospitals as well!”

“Wow. Do we have any more thermometers at home?”

“Let’s go and see!”

**Unit 3 Melting Points**

**Listen to the audio and fill in the blanks. Track 09**

It was very (1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Mandy and Mark went to the movie (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. When the movie finished, they (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

“The ice on the street didn’t (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!” said Mandy.

When they got home, Mark put some ice in a (5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of water. It melted in five (6)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!

Does ice melt at a different speed in different (7)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_? Let’s see!

Step 1. Pour (8)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, milk, and water into different bowls. Put an ice cube in each (9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at the same time.

Step 2. See how long it takes for the (10)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to melt in each bowl.

The ice melts in this (11)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: first in water, then in cola, and then in (12)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Ice melts fastest in (13)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ water. But ice melts slowest in milk.

The (14)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the temperature when a solid changes to a liquid.

The melting point of water is higher than the other liquids.

Water is a pure substance. Mixtures have lower melting points than pure (15)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. That is why ice melts the fastest in water.**Unit 4 The Case of the Disappearing Snowman**

**Listen to the audio and fill in the blanks. Track 12**

Emma (1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ early on Christmas morning.

Snow was (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!

“Dad, let’s make a (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!” she said. So they did.

Then she (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to her grandparents’ for a (5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ meal. That evening, they came home.

“Dad, the snowman (6)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_! Where is it?”

“It was (7)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ today,” said her dad. “The snow melted.

“Last night, the temperature was (8)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ zero degrees Celsius. The water (9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the air froze. It turned to snow and fell from the (10)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

“Today, the temperature was warm. It was more than zero (11)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Celsius. So the snow melted. Zero degrees (12)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the melting point of water.

“Look, can you see the (13)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ where your snowman was?”

“I see it! Can we make a snowman next time it (14)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_?”

“Of course! Now, who wants some (15)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_?”

**Unit 5 Wet and Dry**

**Listen to the audio and fill in the blanks. Track 15**

Do you know what high (1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is? It’s when there is a lot of water vapor in the air.

When it’s hot and humid, you sweat a lot. The (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ stays on your body. You feel hotter.

When it’s cold and humid, your (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ get wet.

When cold wind (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on them, you feel colder.

Let’s see how humidity works.

Let’s make a (5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Step 1. Make an arrow out of a (6)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Make a hole in the (7)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It should be slightly larger than the size of a pin.

Step 2. Put a pin through the hole, and pin it to the bottom of a thick piece of (8)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Step 3. Take a long hair. Stick one end to the top of the cardboard. (9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the other end to the arrow.

Step 4. Take a hairdryer and blow hot air on the hair.

Step 5. Now, put the hygrometer in a bag with a wet (10)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Close the bag and wait.

When we used the (11)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on the hair, it got shorter, and the arrow moved.

When we put the hygrometer in the bag, the hair got (12)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and the arrow moved the other way.

Why did this (13)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_? The hairdryer dried out the air around the hair. It made the hair (14)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. In contrast, hair expands when it’s wet or humid. Humidity can even make your hair (15)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_! **Unit 6 Hot and Humid**

**Listen to the audio and fill in the blanks. Track 18**

It (1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ all day yesterday, but today it’s sunny.

Mia goes to the (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with her mom. It’s really hot and (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Mom says, “The weather today is really hot and (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.”

“Humid? What’s that?” Mia (5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

“Humidity is how much water (6)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ there is in the air. High (7)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ means there is a lot of water vapor in the air. (8)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ humidity means there is little water vapor in the air.

“When the humidity is too (9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, like today, you feel hotter.

You (10)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ more. And food goes bad quickly!”

“So high humidity is (11)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_?” asks Mia.

“(12)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. When the humidity is too low, the air is dry. It (13)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ your skin and eyes. It can be hard to (14)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.”

“Well, it’s too humid today. Let’s go (15)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,” says Mia.

**Unit 7 Heat Transfer**

**Listen to the audio and fill in the blanks. Track 21**

Leave a spoon in a hot pot of (1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. When you touch it later, the (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is hot!

But the spoon handle wasn’t inside the soup. Why did it get hot?

(3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ moved up the spoon.

When you heat part of a (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ material, that part gets hotter. Then the heat moves to the (5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the object.

The whole object gets hot over time. Heat moves through solid materials. This is called “(6)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.”

Let’s watch it happen. This (7)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ involves fire, so be careful.

Step 1. (8)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ three different copper sheets.

Step 2. (9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ thermochromic adhesive labels to the three different (10)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sheets.

Step 3. Heat a corner of each copper sheet and (11)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the color change on the labels.

Step 4. Draw the (12)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the color changes when heating the copper (13)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

The first part of the sheet to (14)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ color is the part near the fire.

Then the rest of it changes.

Heat (15)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from a high temperature to a low temperature.**Unit 8 Insulating Ice**

**Listen to the audio and fill in the blanks. Track 24**

Danny saw a (1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of an igloo in a magazine.

“Wow, Mom, look! A house (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ice! But isn’t it cold in there?”

“No, not at all. The house is made of cold (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. But it isn’t cold inside because of (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!”

“What’s insulation?”

“Insulation (5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ heat escaping from an object or a place.

“Put a (6)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on a hot cup of tea. The tea (7)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hotter for longer. Wear a (8)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in winter. Hot air stays near your body.”

“Oh, that’s why you tell me to (9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the windows in winter! To (10)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the hot air in the house.”

“That’s right.”

“I’m (11)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that even people at the North Pole can stay (12)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.”

**Unit 9 Dissolving Substances**

**Listen to the audio and fill in the blanks. Track 27**

Put (1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in your tea. Put salt in your (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

They mix with the liquid. They seem to (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

You can’t see them, but the sugar and the salt are (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ there. Drink the tea. It tastes sweet.

Try the soup. It tastes (5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The sugar and the salt mixed with the (6)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

When a substance mixes with another (7)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, we call this “dissolution.”

Step 1. Pour water in a beaker. Put the beaker on an (8)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ scale.

Step 2. Put a sugar cube on the scale, too. (9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ them together.

Step 3. Now, put the sugar cube in the beaker, and (10)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ it completely in the water.

Step 4. Weigh the (11)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ again.

The (12)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the beaker doesn’t change. It is the same before and after dissolving the sugar (13)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in it.

The sugar cube is still in the (14)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It dissolved in the water. It (15)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with the water.**Unit 10 Solvents and Solutes**

**Listen to the audio and fill in the blanks. Track 30**

Today, some (1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of Lisa’s mom came to visit her at home. They ate (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and drank coffee.

Lisa’s mom put sugar cubes in her bitter coffee.

The sugar (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ disappeared!

Lisa wanted to ask what happened, but her mom was (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ talking. So Lisa looked (5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

“Oh, the sugar didn’t disappear. It just (6)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It got very small, and it (7)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ into the coffee. Now mom’s coffee is much (8)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!”

Lisa saw that substances that dissolve in other substances are called “(9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.” Sugar and salt are solutes.

The substance they dissolve in is called a “(10)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.” Water and coffee are solvents. That’s why you can (11)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ salt when you (12)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ it on your food. But you can’t see it.

Then Lisa mixed some (13)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ together. Sugar dissolved in milk. But not (14)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ worked. Water didn’t dissolve in oil!

**Unit 11 All the Stars in the Sky**

**Listen to the audio and fill in the blanks. Track 33**

There are (1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ stars in the night sky. People group the (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ stars together into recognizable shapes called (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Some of them look like (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or animals.

Let’s make a (5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and see the constellations at home.

Step 1. Look at a (6)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the stars. Make holes in the lid of a box to (7)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ one constellation.

Step 2. Make a large hole in the (8)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the box. Put a flashlight in the (9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Step 3. Show your friends the constellation light box that you made. Go to a (10)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ room, shine the flashlight at the (11)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or the walls, and enjoy the constellation (12)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Constellations are different in (13)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and winter.

This is because Earth moves (14)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the sun. As Earth moves in space, we can see (15)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ stars.

**Unit 12 Orion and the Big Dipper**

**Listen to the audio and fill in the blanks. Track 36**

Ryan went (1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with his dad. They sat around the campfire at (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Ryan looked up at the night (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Wow! There were so many stars in the sky. Ryan couldn’t see that many in the (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

In the city, fog, (5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and tall buildings (6)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the stars.

Dad pointed to the sky. “Look! There’s (7)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!”

“Orion? What’s that?”

“Orion is a man, but not a (8)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ man. It’s a constellation. That’s a (9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of stars that looks like something. It’s (10)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to spot Orion in the winter sky here. Just (11)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ three stars that look like a (12)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.”

“I see them!” says Ryan. “I can see Orion. Are there (13)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ more?”

“Many more. Look over there. That one looks like a (14)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It’s called the Big (15)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.”

**Unit 13 Water in the Air**

**Listen to the audio and fill in the blanks. Track 39**

Go (1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ early in the morning. Can you see drops of water on the grass or (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_? These drops are called dew.

There are low and thick (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ close to the ground, making it difficult to see. That’s called (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Fog and dew are different. But both are (5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ water in the air.

Dew forms when water vapor meets cold leaves or branches. Then, the air (6)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and the water vapor in the air condenses.

Let’s watch it (7)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Step 1. Fill 2/3 of a (8)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with water and ice cubes.

Step 2. Wipe the surface of the jar with a dry (9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Then, observe the changes on the surface of the jar.

The vapor outside the jar (10)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It forms water drops on the surface of the cold jar.

Fog (11)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from water vapor as well.

Step 1. Fill up the jar with warm water to (12)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ it up. Then pour out the water.

Step 2. Put a lit (13)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ stick into the jar for a minute. Then, take it out.

Step 3. Place a dish with (14)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on top of the jar. See what happens.

The ice cools the warm water vapor. The water (15)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ condenses, and it makes fog inside the jar.**Unit 14 Steaming Hot Soup**

**Listen to the audio and fill in the blanks. Track 42**

Kevin is very (1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Dad made carrot soup for dinner. Mmm!

Dad puts the hot (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on the table and starts to eat.

Kevin starts laughing.

“What’s (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_?” asks his dad.

“Your (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are foggy! You look like Grandfather!”

Kevin’s dad (5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

“That’s because of the (6)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,” he says. “Hot water vapor comes out from the soup, and it (7)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ my cold glasses. The vapor cools down quickly and turns to (8)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.”

Kevin thinks about his (9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ shower.

“That’s why the mirror steams up when I have a (10)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!”

“Yes! That’s right,” says Dad. “Now eat your (11)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ before it cools down.”

Look for steam (12)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ you when you get home today.

**Unit 15 Aerospace Engineers**

**Listen to the audio and fill in the blanks. Track 45**

Do you know about the Wright (1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_?

The Wright brothers (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the first airplane in 1903. It only flew for 12 seconds! It flew just 36 (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Now, planes can fly from (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to America. They can fly for 21 hours (5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Planes can fly over 15,000km!

Who made planes better? (6)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ engineers did. They keep designing better (7)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

They make planes faster, quieter, and (8)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. They make planes from better materials. They (9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ better shapes. They make planes better for the (10)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Aerospace engineers don’t just (11)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ planes. They design drones and helicopters. They even design things that can (12)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in space, like satellites and space (13)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Would you like to design a rocket to visit the (14)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the universe?

Become an aerospace (15)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!

**Unit 16 3D Printing**

**Listen to the audio and fill in the blanks. Track 48**

We can print (1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. We can print books.

Can we print a (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_? Or a cup? Or even a pizza?

Yes, we can! 3D printers can (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_anything we can imagine. (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3D printers can even print food!

(5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ special software on your computer. (6)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ anything you want.

Your computer (7)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the design to the 3D printer. The printer moves in all (8)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It makes your design real.

(9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ engineers designed the first 3D printers 40 years ago. The printers used to be very big and very (10)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. They couldn’t print many things. Now they are smaller, and they are (11)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. They can print more and more things.

(12)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can make artificial 3D-printed hearts. (13)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can 3D-print their art. You can print your own (14)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

We can print anything we like (15)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3D printers!