**Unit 1 The Three States of Water**

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

(1) can be solid, liquid, or gas.

Can you (2) it?

Let’s take a look. We can see water (3) from solid to liquid and then to gas.

Step 1. (4) some water to make (5) .

Step 2. Put the ice on your (6) and see what happens.

The ice (7) and becomes liquid.

Later, the water (8) into the air.

A (9) lake is solid. The water on a pool slide is liquid.

The steam at a (10) is water as gas.

What other solids, liquids, and gases are around us?

**Unit 2 Smoke or Steam?**

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

Kelly’s dad is (1) water in the kitchen.

He’s making (2) for lunch.

What’s this? Is there a (3) in the kitchen?

“Dad, (4) is coming from the (5) !”

“Don’t worry, Kelly. This isn’t smoke. This is (6) .

Boiling water makes steam.”

“What is steam, dad? Why does boiling water make it?”

“When water boils, the liquid becomes a (7) gas. This is steam.

Then it meets the cold air (8) the pot.

It becomes small (9) of liquid again.”

It’s time to eat now. The noodles look (10) !

**Unit 3 Crushing Cups**

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

Do you think paper cups are strong?

They get (1) quickly. We can break them (3) .

They don’t seem strong.

But they can be very strong!

Let’s see.

Step 1. Put six paper cups on the (3) in two (4) .

Step 2. Put a book on top of the paper cups and step on the book carefully.

Step 3. If you can (5) on them without (6) them, use (7) cups next time. How many cups do you need?

When we stand on one paper cup, we put all our (8) on one cup. We (9) the cup.

When we stand on six paper cups, we put our weight (10) six cups. We can stand on the cups.

\* One paper cup can hold about 21kg.

**Unit 4 Super Skis**

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

Alice goes (1) with her family.

There is so much (2) !

She (3) on the snow. Her foot (4) . It’s so cold.

“Dad, how can we ski in this snow?”

“You sank because of (5) . That’s why we (6) \_\_\_\_\_\_\_\_\_\_\_\_\_\_ skis,” Dad says.

“What’s pressure? Is it my weight?”

“Almost. Pressure is weight in one (7) . Your feet are small, so your weight (8) on a small area.

The pressure is high.

The skis are big and long.

When you (9) them, your weight is (10) out.

The pressure becomes low. You don’t sink!”

**Unit 5 Straw Flutes**

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

Take some (1) and some tape.

What can we do with this?

We can make a pan (2) .

See how it makes sound just by (3) a straw.

Step 1. Take seven straws.

Step 2. Don’t cut the first straw. Cut the second straw 1.5cm

(4) , the third one 3cm shorter, and so on. Cut each straw 1.5cm shorter than the last one.

Step 3. (5) the straws from shortest to (6) . Make sure the (7) part is all lined up, then put tape over them.

Step 4. (8) both sides of the pan flute and blow over the ends!

Does it sound good? I’m sure it does.

Which straw makes the (9) sound?

Which straw makes the lowest sound?

Does the (10) of the straw change the sound?

Can you play a song on your new pan flute?

**Unit 6 The Wolf and the Whistle**

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

Tammy walked home at night.

She heard a (1) sound behind her.

It was a wolf! It made a low (2) sound.

Tammy was very scared.

No one else could see the wolf because it was dark.

No one else could hear it because the (3) was low.

Then she remembered the (4) in her (5) .

She (6) it. It made a high sound.

The wolf was (7) .

People heard the sound. They made the wolf (8) !

High sounds (9) far. Low sounds don’t.

Fire (10) and police cars use high sounds.

**Unit 7 The Pine Cone’s Secret**

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

We can see (1) in forests. We can see them in parks and in the (2) , too.

They’re good for winter (3) and they smell good, too.

Pine cones also have a (4) .

Let’s find out what their secret is.

Step 1. First, look closely at the pine cones. Some are (5) open while some are closed.

Step 2. Put the wide open pine cones in a bowl of water for about an

(6) .

Step 3. Take the pine cones out of the water.

Step 4. A little while later, see what happened to the pine cones.

Pine cones open when they are (7) . They (8) when they are wet, or when the air is (9) .

Find some pine cones on trees near you.

Look at them (10) . What can they tell you?

Is the air dry, or is it humid?

**Unit 8 The Story of the Pine Cone**

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

There is a (1) . It has many pine cones.

The pine cones are(2) seeds.

The pine cones (3) the seeds.

They’re like the seeds’ homes.

When it rains, the pine cones close. They (4) the seeds from the wind and the (5) .

One (6) and (7) day, it’s time for the seeds to go. The pine cones open up.

The wind comes.

It blows the (8) out of the pine cones.

They travel far.

They (9) into (10) pine trees.

Soon, the trees grow more seeds.

**Unit 9 Roll a Coin**

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

(1) are useful.

We put coins in. We get things out!

How do they work?

They use magnets to stop coins that aren’t (2) .

Let’s see!

Step 1. (3) two thick books together.

Step 2. (4) another book against the two thick books to make a (5) .

Step 3. Put a stick magnet on the book.

Step 4. (6) a coin and an (7) ring along the book.

The coin rolls down the book. It doesn’t (8) to the magnet.

The iron (9) stops. It sticks to the magnet.

Iron sticks to magnets.

Coins are made of (10) metals (copper and nickel etc.).

These metals don’t stick to magnets.

**Unit 10 Toy Coins**

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

Brian and Jason went to a vending machine.

Brian wanted to (1) something.

He took out some (2) coins.

They were (3) plastic. He put them in the machine.

He put in some (4) coins, too.

(5) the toy coins came out.

“The (6) and shape of the coins is the same.

What happened?”

Jason said, “I know why. Real coins are made of metals.

The machine has (7) in it.

Metal coins move slowly (8) the magnets.

Plastic coins fall (9) . They (10) right out!”

**Unit 11 Liquid to Solid**

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

We know a solid keeps its (1) and (2) .

We know a liquid changes its shape but not its volume.

What happens when a liquid changes to a solid?

Step 1. Fill a test tube (3) with water. Mark the height of the water and measure its weight.

Step 2. (4) salt with (5) ice in a cup. Put the test tube in the (6) of the cup. Freeze the water.

Step 3. Now measure the (7) of the ice in the test tube. Weigh the test tube.

Step 4. Put the (8) in a cup of (9) water. Measure the water level in the test tube again and weigh it.

The liquid water changed into solid ice.

Then it changed into a liquid again. It changed its volume.

The ice was higher.

But the weight didn’t change.

It (10) the same.

**Unit 12 Ice Breaker**

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

It was a hot day. Susie (1) the (2) .

She was (3) . “Mom, I put a water bottle in the freezer. Now it’s (4) !”

Her mom came to see.

“Why did it (5) ?” Susie asked.

“When water freezes, it gets (6) .

The ice broke the (7) bottle.”

“Oh! When I put my (8) in the freezer, the plastic

(9) gets bigger. Is that why?

It’s because the yogurt has water in it, isn’t it?”

“That’s right,” says her mom. “Now, can you help me (10) the freezer?”

**Unit 13 Rock-Breaking Rivers**

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

At the top of the mountain, there are big rocks.

At the (1) , there are smaller rocks.

(2) the sea, there is sand.

What makes this happen? Let’s (3) .

Step 1. (4) some sand high like a mountain.

Use (5) sand at the top.

Step 2. Pour water on top of the sand. Watch what happens.

The water (6) the colored sand to the bottom.

This is what (7) do.

Rivers (8) on mountains. They go to the sea.

Rivers (9) the big rocks at the top of the (10) .

They bring small rocks to the bottom.

They turn rocks into sand!

**Unit 14 Adventures of Spring Water**

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

(1) flowed out of the ground.

She flowed (2) a big rock.

“I want to be big like you!” she said.

“You can,” said the rock.

“Keep going. You will become a big sea.”

She (3) a trip.

She (4) down the mountain. She was strong.

She changed the (5) around her.

She flowed (6) big rocks. She broke the rocks and made soil.

(7) grew in the soil.

Now she was a big river. She flowed (8) .

She (9) going. She flowed to the (10) .

She was so happy!

She traveled around the world.

**Unit 15 Building Worlds**

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

Do you know what VR is? VR means virtual (1) .

You wear a (2) . You turn it on.

You enter a new world!

Walk in Paris. Walk (3) and (4) .

Walk on the moon! Look up and down.

You can do (5) you want.

VR feels real. But it’s not.

Virtual world (6) make these worlds.

They (7) things around us.

They use a (8) camera.

Then (9) world creators make virtual worlds on a computer.

They use a special program.

They (10) us to new worlds!

**Unit 16 Flower Power**

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

Do you like flowers, trees, and (1) ?

Why not be a (2) ?

Botanists work (3) plants.

They look at plants all day.

They (4) all about plants.

Some botanists travel all over the (5) .

They (6) mountains. They find new plants.

They help plants that are in (7) .

Botanists see how plants grow.

They can grow plants, too.

(8) botanists even make (9) with plants.

Doesn’t it sound (10) ?