

Skills Worksheet

Reinforcement**A Moth at the Concert**

Complete this worksheet after you finish reading the section "Heat and Energy."

Myron the moth found himself flying through a concert hall while a rock-and-roll band performed. The sounds of the concert didn't matter to Myron, but he was amazed at the temperature differences he noticed all over the hall.

Read the descriptions of the places that Myron visited that evening. Then, determine the way in which heat was transferred. In each case, did Myron experience conduction, convection, or radiation? Circle the appropriate choice, and explain your answer on the following line.

1. Myron first flew from the dark night into the dressing room at the back of the concert hall. The band wanted a cup of tea before the show. On a small electric stove, Myron saw a clear teapot. The water inside the pot was bubbling. As he flew closer, he saw little tea leaves rising from the bottom of the pot. The leaves went to the side and sank back down to the bottom. Myron had never seen anything like it.

conduction convection radiation

2. One of the band members poured a cup of tea. She left her spoon in the cup as she turned to tune her guitar. Myron, who was curious, slipped across the room. He landed on the spoon's handle. If Myron had vocal chords, he would have screamed! His feet felt like he had landed in a fire. Myron flustered away as fast as his wings would carry him.

conduction convection radiation

3. As the band ran from the room, Myron flew along behind them. They danced onto the stage, but Myron flew toward the huge lights. After all, that's what moths like to do. But when he was still many feet away, he began to feel very hot. He wanted to get closer to the beautiful, bright light, but he was afraid his wings would catch fire!

conduction convection radiation

4. Myron flew down, around, and above the light. As he skittered into the space above the bulb, a strong, warm wind suddenly caught his wings! He was carried higher and higher above the light until the warm breeze cooled. Then, he swept back down, to one side of the light, riding a gentle, cool breeze. It was so much fun, Myron wanted to do it all night.

conduction convection radiation