**Thermal Energy Transfer**

Identify the examples as either **conduction, convection or radiation** depending on how thermal energy is being transferred and explain your choice. Some may have more than one answer.

1. A rock getting warm because it is touching a hot coal in a fireplace. Conduction
2. A lava lamp circulating ‘lava’ inside itself. Convection
3. Warm air rises and cold air sinks near the ground producing sea breezes.

Convection

1. A heat lamp keeps roast beef warm at a buffet by shining on it. Radiation
2. The handle of a pan gets warm because the bottom of the pan is sitting on a hot burner. Conduction
3. Water circulating in a pot of boiling water. Convection
4. The Sun warming our planet. Radiation
5. You step on hot sand in your bare feet. Conduction
6. Holding your hand above a frying pan on the stove to see if it is hot before adding food. Radiation
7. Touching a hot iron by accident and burning yourself. Conduction
8. Warm ocean water and cold ocean water mixing to create ocean currents. Convection
9. A fireplace warms air near it. This mixes with cold air farther away from the fireplace to warm up the room. Convection
10. You leave a metal spoon in your cup of hot chocolate and a few minutes later it is warm. Conduction