



**ANSWER KEY**

**Dangerous Waters**

1. Two ways to light an outdoor swimming pool are wet niche lighting and fiber optic lighting.
2. It is safe to have electric light bulbs underwater because all the parts of the lighting system are kept dry and well insulated from the water.
3. Answers will vary.
4. If an electrical appliance catches fire, use a Class C fire extinguisher to put it out.
5. If you throw water on an electrical fire, you could be shocked.
6. You could be shocked by throwing water on an electrical fire because water conducts electricity. Any electricity still flowing through the appliance can travel up the stream of water and shock you.
7. When speaking about electricity, “grounded” means touching the ground or something in contact with the ground.
8. Answers to the question about ways one could be grounded will vary. Make sure students know they can be grounded not only when standing directly on the ground but also when touching or standing on something in contact with the ground: holding or standing on a ladder, touching plumbing pipes, standing on the cement slab floor of a garage, standing on the sidewalk, climbing in a tree, etc.
9. To be safe using electricity near water, make sure the appliance is plugged into a GFCI. These devices monitor the flow of electricity in a circuit, and if any is escaping the circuit, they quickly shut off power to prevent serious shock. GFCIs should be used with appliances in bathrooms, near kitchen sinks, and outdoors.