Roof & Ceilings Worksheet

1. What are the three primary roof and ceiling insulation locations?

2. Explain the difference between an encapsulated attic and an attic outside the thermal envelope.

3. Are you required to insulate the ductwork within an encapsulated plenum? Why or why not?

4. Would you insulate the ductwork within a plenum outside the thermal envelope? Why or why not?

5. Which type of ceiling fill is typically applied by hand, loose fill or batt insulation?

6. Which type of ceiling insulation never contains a vapor retarder, loose fill or batt insulation?

7. Generally, where should exterior roof insulation be applied?
   A) Beneath the structural roof decking.
   B) On the top of structural roof decking, directly underneath the bulk water control layer. But a second layer of roof sheathing or other nailing surface may be required over the insulation to attach the water-resistant roofing covering.
   C) Directly above the bulk water control layer.

8. Explain the key difference between closed cell and open cell spray foam.

9. What is a major downfall of closed cell spray foam?

10. What is a way to insulate a cathedral or other vaulted ceiling type building when the roof is being installed at the same time as the insulation?

11. Name one pro and one con for exterior insulation…

12. True or False: Dropped ceilings are an effective air and vapor barrier.

13. Why do metal buildings have special insulation requirements?

14. Often, attics are vented to remove heat and humidity that can otherwise build up. Name at least two critical things to remember when designing attic ventilation.

15. Name a scenario when attic ventilation makes sense.

16. Name at least three common culprits of Air and Vapor leakage in roofs and ceilings?