

CONTENT OUTLINE

The National Home Inspector Examination is based on a formal role delineation study that defines the profession as practiced in the field. Home inspector subject matter experts from a variety of practice specialties and geographic areas contributed to the study, and home inspectors from throughout the nation then reviewed the study via a statistically valid survey. The resulting content areas and their associated knowledge and skill requirements serve as the "blueprint" for the National Home Inspector Examination. The percentage of questions on the exam for each content area is indicated below.

This document, based on the role delineation study, is intended to provide home inspectors with topics for study that may appear on the *National Home Inspector Examination*. The contents of this document are neither a complete listing of all topics covered by the examination nor all skills necessary to perform a competent inspection.

I. Inspection Methods (27%)

Task 1: Sensory Observation

Seeing, smelling, touching, and hearing observed components during the course of inspections.

- a. Exterior systems
- b. Structural systems
- c. Roofing systems
- d. Electrical systems
- e. Heating and cooling systems
- f. Insulating and ventilation systems
- g. Plumbing systems
- h. Interior systems
- i. Fireplace and chimney systems

Task 2: Measurement Methods

Using instruments to determine or quantify conditions.

- a. Exterior systems
- b. Structural systems
- c. Roofing systems
- d. Electrical systems

- e. Heating and cooling systems
- f. Insulating and ventilation systems
- g. Plumbing systems
- h. Interior systems
- i. Fireplace and chimney systems

Task 3: Additional Methods

Using probes, disassembly, or other processes to determine the condition of not-readily-accessible systems and components.

- a. Exterior systems
- b. Structural systems
- c. Roofing systems
- d. Electrical systems
- e. Heating and cooling systems
- f. Insulating and ventilation systems
- g. Plumbing systems
- h. Interior systems
- i. Fireplace and chimney systems

II. Building Systems (42%)

Task 1: Exterior Systems

- a. Vegetation, grading, drainage, and retaining walls
 - Common retaining wall types, materials, applications, installation methods, construction techniques, and clearance requirements
 - 2. Common grading/drainage system types, materials, applications,

- installation methods, and construction techniques
- 3. Typical defects
- 4. Typical vegetation and landscape conditions and maintenance practices and how they may affect the building
- 5. Maintenance concerns and procedures
- 6. Safety issues, applicable standards, and appropriate terminology

- b. Driveways, patios, and walkways
 - Common types, materials, applications, installation methods, and construction techniques
 - 2. Typical defects
 - 3. Maintenance concerns and procedures
 - 4. Safety issues, applicable standards, and appropriate terminology
- c. Decks, balconies, stoops, stairs, steps, porches, and applicable railings
 - Common types, materials, applications, installation methods, and construction techniques
 - 2. Typical defects (e.g., flashing, attachment issues, railing)
 - 3. Maintenance concerns and procedures
 - 4. Safety issues, applicable standards, and appropriate terminology
- d. Wall cladding, flashing, trim, eaves, soffits, and fascia
 - 1. Common types (e.g. plywood, aluminum cladding, step flashing, composite siding, SIPS, EIFS)

a. Foundation

- Common foundation types, materials, applications, installation methods, and construction techniques
- 2. Typical foundation system modifications, repairs, upgrades, and retrofits methods and materials
- 3. Common foundation conditions and defects (e.g., cracks, settlement) and their common causes and effects
- 4. Soil types and conditions and how they affect foundation types
- Applied forces and how they affect foundation systems (e.g., wind, seismic, loads)
- 6. Safety issues, applicable standards, and appropriate terminology

b. Floor structure

- Common floor system types (e.g., trusses, concrete slabs), materials, applications, installation methods, and construction techniques
- Typical modifications, repairs, upgrades, and retrofits methods and materials
- 3. Typical defects (e.g., improper cuts and notches in structural members)
- 4. Limitations of framing materials (e.g., span)
- 5. Applied forces and how they affect floor systems (e.g., wind, seismic, loads)
- 6. Safety issues, applicable standards, and appropriate terminology
- c. Walls and vertical support structures

- 2. Typical defects (e.g., nailing, water absorption)
- 3. Appropriate tools and their uses (e.g., probe, awl, moisture meter)
- 4. Maintenance concerns and procedures
- 5. Safety issues, applicable standards, and appropriate terminology
- e. Exterior doors and windows
 - Common door and window types, materials, applications, installation methods, and construction techniques
 - 2. Typical defects
 - 3. Appropriate tools and their uses (e.g., probe, awl, moisture meter)
 - 4. Safety issues, applicable standards, appropriate terminology, and glazing requirements (e.g., egress requirements)

Task 2: Structural Systems

- Common types, materials, applications, installation methods, and construction techniques
- Typical modifications, repairs, upgrades, and retrofits methods and materials
- 3. Typical defects
- 4. Seismic and wind-resistant construction methods and hardware
- 5. Fire blocking
- 6. Safety issues, applicable standards, and appropriate terminology

d. Ceilings

- Common ceiling structure types, materials, applications, installation methods, and construction techniques
- Acceptable truss and ceiling structural-member modifications, repairs, upgrades, and retrofits methods and materials
- Typical defects
- 4. Limitations of framing materials (e.g., span)
- 5. Applied forces and how they affect ceiling structures (e.g., wind, seismic, loads)
- Safety issues, applicable standards, and appropriate terminology

Task 3: Roofing Systems

a. Roofs

1. Common roof structure types, materials, applications, installation methods, and construction techniques

- 2. Typical roof structure modifications, repairs, upgrades, and retrofits methods and materials
- 3. Typical defects
- 4. Limitations of framing materials (e.g., span)
- 5. Seismic and wind-resistant construction and hardware
- 6. Insufficient ventilation and how it affects roof structures
- Applied forces and how they affect roof structures (e.g., wind, seismic, loads)
- 8. Cathedral ceilings and how they affect roof framing
- 9. Maintenance concerns and procedures

b. Roof covering

- 1. Common roof-covering types, materials, applications, installation methods, construction techniques, and manufacturing requirements
- 2. Typical roof covering repair methods and materials
- 3. Typical defects
- 4. Characteristics of different roofing materials
- 5. Deck and sheathing requirements for different types of roof coverings
- 6. Maintenance concerns and procedures
- 7. Safety issues, applicable standards, and appropriate terminology

c. Roof drainage systems

- Common drainage system types, materials, applications, installation methods, and construction techniques
- Typical modifications, repairs, upgrades, and retrofits methods and materials
- 3. Typical defects (e.g., ponding, improper slopes, disposal of water run-off)
- 4. Maintenance concerns and procedures
- 5. Safety issues, applicable standards, and appropriate terminology

d. Flashings

- Common types, materials, applications, installation methods, and construction techniques
- 2. Typical defects
- 3. Purpose of roof flashing
- 4. Maintenance concerns and procedures
- 5. Safety issues, applicable standards, and appropriate terminology
- e. Skylights and other roof penetrations
 - Common skylight and other roof penetration types, materials, applications, installation methods, and construction techniques

- 2. Typical defects
- 3. Maintenance concerns and procedures
- 4. Safety issues, applicable standards, and appropriate terminology

Task 4: Electrical Systems

- a. Service drop of service lateral, service equipment, and service grounding
 - Common types, materials, applications, installation methods, and construction techniques
 - Typical modifications, repairs, upgrades, and retrofits methods and materials
 - 3. Typical defects (e.g., water and rust in panel equipment, height)
 - 4. Electrical service capacity
 - 5. Service grounding and bonding
 - 6. Maintenance concerns and procedures
 - 7. Safety issues, applicable standards, and appropriate terminology
- b. Interior components of service panels and subpanels
 - Common types, materials, applications, installation methods, and construction techniques
 - Typical modifications, repairs, upgrades, and retrofits methods and materials
 - 3. Typical defects
 - 4. Main disconnects
 - 5. Panel grounding and subpanel neutral isolation
 - 6. Panel wiring
 - 7. Overcurrent protection devices
 - 8. Function of circuit breakers and fuses
 - 9. Maintenance concerns and procedures
 - 10. Inspection safety procedures
 - 11. Safety issues, applicable standards, and appropriate terminology
- c. Wiring systems
 - 1. Common types, materials, applications, and installation methods
 - Typical modifications, repairs, upgrades, and retrofits methods and materials
 - 3. Typical defects
 - 4. Problems with aluminum wire
 - 5. Obsolete electrical wiring system
 - 6. Maintenance concerns and procedures
 - 7. Safety issues, applicable standards, and appropriate terminology
- a. Devices, equipment, and fixtures (e.g., switches, receptacles, lights)
 - Common types, materials, applications, installation methods, and construction techniques

- Typical modifications, repairs, upgrades, and retrofits methods and materials
- 3. Typical defects
- 4. Equipment grounding
- 5. Wiring, operation, location of typical devices and equipment (e.g., air conditioners, GFCI, arc fault)
- 6. Maintenance concerns and procedures
- 7. Safety issues, applicable standards, and appropriate terminology

Task 5: Heating and Cooling Systems

- a. Heating and cooling
 - 1. Typical defects
 - 2. Theory of refrigerant cycle (latent and sensible heat)
 - 3. Theory of heat transfer and how it takes place in different heating system types
 - 4. Theory of equipment sizing
 - 5. Methods of testing the systems
 - 6. Performance parameters
 - 7. Condensate control and disposal
 - 8. Byproducts of combustion, their generation, and how and when they become a safety hazard
 - 9. Maintenance concerns and procedures
 - 10. Safety issues, applicable standards, and appropriate terminology

b. Distribution systems

- Common distribution system types, materials, applications, installation methods, and construction techniques
- 2. Typical defects
- 3. Methods of testing the system
- 4. Maintenance concerns and procedures
- 5. Safety issues, applicable standards, and appropriate terminology
- c. Venting systems
 - Common venting system types, materials, applications, installation methods, and construction techniques
 - 2. Typical defects
 - 3. Theory of venting
 - 4. Equipment sizing
 - 5. Safety issues, applicable standards, and appropriate terminology

Task 6: Insulating and Ventilating Systems

- a. Thermal insulation
 - 1. Common thermal insulation types, materials, applications, installation methods, and construction techniques
 - 2. Typical defects
 - 3. Theory of heat transfer and energy conservation

- 4. Performance parameters (e.g., R-value)
- 5. Maintenance concerns and procedures
- 6. Safety issues, applicable standards, and appropriate terminology
- b. Moisture management
 - Common vapor retarder types, materials, applications, installation methods and construction techniques
 - 2. Typical defects
 - Theory of moisture generation and movement
 - 4. Performance parameters
 - 5. Vapor pressure and its effects
 - 6. Theory of relative humidity
 - Effects of moisture on building components, occupants, and indoor air quality
 - 8. Moisture control systems
 - 9. Appearance or indications of excessive moisture
 - 10. Likely locations for condensation to
 - 11. Maintenance concerns and procedures
 - 12. Safety issues, applicable standards, and appropriate terminology
- c. Ventilation systems of attics, crawl spaces, roof assemblies, and interior spaces
 - 1. Common types, materials, applications, installation methods and construction techniques
 - 2. Typical ventilation defects and how they affect buildings and people
 - 3. Theory of air movement
 - 4. Theory of relative humidity
 - 5. Air movement in building assemblies
 - 6. Inter-dependence of mechanical systems and ventilation systems
 - 7. Appliance vent systems requirements (e.g., dryers, range hoods)
 - 8. Screening, sizing, and location requirements for vent openings
 - 9. Maintenance concerns and procedures
 - 10. Safety issues, applicable standards, and appropriate terminology

Task 7: Plumbing Systems

- a. Water supply distribution system
 - Common water distribution types, materials, applications, installation methods, and construction techniques
 - Typical modifications, repairs, upgrades, and retrofits methods and materials
 - 3. Typical defects (e.g., crossconnection, back flow)

- 4. Common water pressure/flow problems and how they affect the water distribution system
- 5. Pipe deterioration issues (e.g., PVC, galvanized, brass)
- 6. Maintenance concerns and procedures
- 7. Safety issues, applicable standards, and appropriate terminology
- b. Fixtures and faucets
 - Common fixture and faucet types, materials, applications, installation methods, and construction techniques
 - Typical modifications, repairs, upgrades, and retrofits methods and materials
 - 3. Typical defects (e.g., cross-connection, back flow)
 - 4. Maintenance concerns and procedures
 - 5. Safety issues, applicable standards, and appropriate terminology
- c. Drain, waste, and vent systems
 - Common types, materials, applications, installation methods, and construction techniques
 - Typical modifications, repairs, upgrades, and retrofits methods and materials
 - 3. Typical defects
 - 4. Theory and usage of traps and vents
 - 5. Acceptable piping, materials, and applications
 - 6. Indications of defective venting or drain slope
 - 7. Identification of public or private disposal (when possible)
 - 8. Joining dissimilar pipe materials
 - 9. Proper support spacing
 - 10. Maintenance concerns and procedures
 - 11. Safety issues, applicable standards, and appropriate terminology
- d. Water heating systems
 - Common types, materials, applications, installation methods, and construction techniques (e.g., instant, tankless, indirectly heated)
 - Typical water heater defects (e.g., improper vent/flue materials, condition, unsafe locations, connections)
 - 3. Accessory items (e.g., drainpans, seismic restraints)
 - 4. Connections to and controls for energy source
 - 5. Combustion air requirements
 - 6. Maintenance concerns and procedures
 - 7. Safety issues, applicable standards, and appropriate terminology
- e. Fuel storage and fuel distribution systems

- Common types, materials, applications, installation methods, and construction techniques
- 2. Typical defects
- 3. Defects in above-ground oil/gas storage tanks
- 4. Fuel leak indications, repairs, and remediation methods
- Basic components of gas appliance valves and their functions
- 6. Tank restraints and supports
- 7. Underground storage tank indicators and reporting requirements
- 8. Maintenance concerns and procedures
- 9. Safety issues, applicable standards, and appropriate terminology
- f. Drainage sumps, sump pumps, sewage ejection pumps, and related piping
 - Common types, materials, applications, installation methods, and construction techniques
 - 2. Typical defects
 - 3. Sump pump location significance
 - 4. Pump discharge location significance
 - 5. Wiring installation methods
 - 6. Maintenance concerns and procedures
 - 7. Safety issues, applicable standards, and appropriate terminology

Task 8: Interior Systems

- a. Walls, ceiling, floors, doors, and windows
 - 1. Types of defects in interior surfaces not caused by defects in other systems
 - 2. Typical defects in interior surfaces caused by defects in other systems
 - 3. Safety issues, applicable standards, and appropriate terminology
- b. Walls, ceiling, floors, doors, windows, and related fire/life safety equipment
 - Common wall, ceiling, floor, door, and window types, materials, applications, installation methods and construction techniques
 - 2. Typical defects
 - 3. Egress requirements
 - 4. Applicable fire/safety and occupancy separation requirements (e.g., smoke detectors, window bars, ladders, firewalls, firedoors, and penetrations)
 - Operation of windows, doors, window bars, and other fire/life safety equipment and components
 - 6. Maintenance concerns and procedures
 - 7. Safety issues, applicable standards, and appropriate terminology
- c. Steps, stairways, landings, and railings
 - 1. Common step, stairway, landing, and railing types, materials, applications,

- installation methods and construction techniques
- 2. Typical defects
- 3. Maintenance concerns and procedures
- 4. Safety issues, applicable standards, and appropriate terminology
- d. Installed countertops and cabinets
 - 1. Common cabinet and countertop types, materials, applications, installation methods and construction techniques
 - 2. Typical defects
 - 3. Maintenance concerns and procedures
 - 4. Safety issues, applicable standards, and appropriate terminology
- e. Garage doors and operators
 - 1. Common garage door and door operator types, materials, applications, installation methods and construction techniques
 - 2. Typical defects
 - 3. Maintenance concerns and procedures
 - 4. Safety issues, applicable standards, and appropriate terminology

Task 9: Fireplace and Chimney Systems

- a. Fireplaces, solid-fuel burning appliances, chimneys, and vents
 - Common manufactured fireplaces and solid-fuel burning appliance types, materials, applications, installation methods and construction techniques
 - 2. Common manufactured fireplaces and solid-fuel burning appliance chimney, vent connector, and vent types, materials, applications, installation

- methods and construction techniques of direct-vent and non-vented fireplaces
- 3. Common masonry fireplace types, materials, applications, installation methods and construction techniques
- 4. Common direct-vent fireplace vent types, materials, applications, installation methods and construction techniques
- 5. Chimney terminations (e.g., spark arrestors)
- 6. Chimney height and clearance requirements
- 7. Theory of heat transfer and fire safety fundamentals
- 8. Effects of moisture and excessive heat on fireplaces
- 9. Fuel types and combustion characteristics
- 10. Typical defects
- 11. Combustion air supply requirements
- 12. Operation of equipment, components, and accessories
- 13. Maintenance concerns and procedures
- 14. Safety issues, applicable standards, and appropriate terminology

III. Reporting (26%)

Task 1: Distinguishing Characteristics

Describe building systems and components in accordance with the agreement with the client by documenting distinguishing characteristics (e.g., type, size, location) and inspection methods (when necessary) to inform the client.

- a. Knowledge of:
 - Minimum and critical information required in an inspection report (e.g., property data, participants, weather conditions, inspection methods, systems and components inspected, findings)
 - Distinguishing characteristics of system or component (e.g., type, size, location)
- b. Skill in:

- 1. Documenting distinguishing characteristics (e.g., type, size, location)
- Documenting inspection methods, limitations, and restrictions to inspection

Task 2: Condition

Communicate in writing the condition of systems and components to inform the client.

- a. Knowledge of terminology for describing findings and defects
- b. Skill in:
 - 1. Documenting findings and defects clearly and completely
 - Documenting evidence of an adverse condition even if the evidence is not conclusive

- 3. Documenting notification to third parties about unsafe conditions that required immediate action, if any
- 4. Documenting limitations and restrictions

Task 3: Action/Consequence

Document the need for correction or additional evaluation in order to inform the client.

- a. Knowledge of consequences associated with property defects
- Skill in describing clearly and completely a recommendation based on the inspection findings

IV. Professional Practice (5%)

Task 1: Elements of the inspection contract

- a. Knowledge of:
 - 1. Purpose of a contract
 - 2. Elements of a contract
- Task 2: Third-party stakeholders with financial or technical interests (e.g., lenders, sellers, builders, code officials)

 Knowledge of:
 - a. Nature of conflict of interest among third parties
 - b. Appropriate protocols for disclosing inspection information to third parties

Task 3: Conditions of immediate safety concern Knowledge of:

- a. The duty to inform parties at risk of immediate life-threatening conditions
- b. The duty to inform the client of the disclosure to others of immediate life-threatening conditions

Task 4: Inspector financial responsibilities Knowledge of types of business insurance (e.g., errors and omissions, general liability, bonding)

Task 5: Professional conduct Knowledge of:

- a. Fundamental legal concepts (e.g., fiduciary responsibility, contractual responsibility, liability, negligence, due diligence)
- b. Need to disclose and document conflicts of interest of the home inspector
- c. Inspector behavior that adversely affects concerned parties (e.g., harassment, racism, libel, slander)
- d. Methods for responding to a complaint
- e. Boundaries of personal expertise and professional scope of practice