



metal-clad (MC) cable



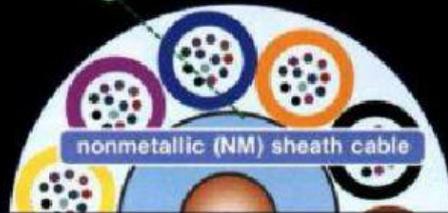
underground feeder (UF) cable



service entrance (SE) cable

# Home Wiring

## Tips and Types:



nonmetallic (NM) sheath cable

There are many different types of electrical wire and cable. **Knob and tube (K&T) wiring** is one of the oldest types of wiring. Older types of cable are **armored cable (AC)** and **metal-clad (MC) cable**. Both of these are **insulated** by steel. These were **replaced** in newer construction by **nonmetallic (NM) sheath cable**. However, replacement is not required if the wire or cable **jacket** is still good. Check them to make sure there is no **bare conductor** or wire showing. **Underground feeder (UF) cable** and **service entrance (SE) cable** are used outdoors. However, SE cable is only approved for above-ground use.

### Get ready!

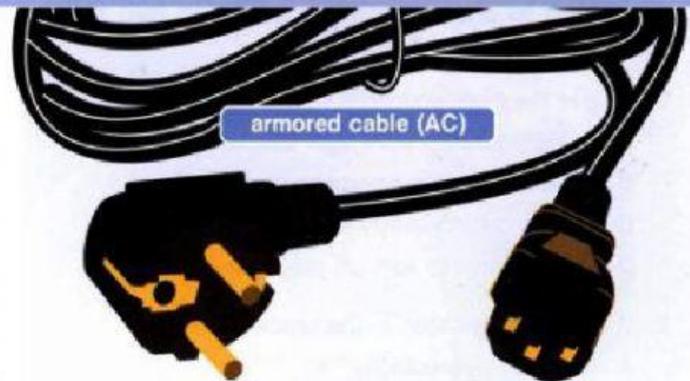
- 1 Before you read the passage, talk about these questions.

- Why might an electrician need to know the types of wires?
- What are some different types of wire?

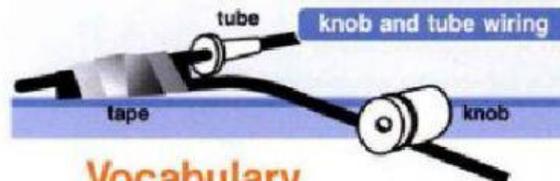
### Reading

- 2 Read the excerpt from a magazine article. Then, choose the correct answers.

- What is the main idea of the article?
  - Wiring in older houses is dangerous.
  - Metal-clad cable is not recommended in homes.
  - Several types of wires and cables can be found in buildings.
  - Indoor and outdoor wires vary from each other.
- Which of the following is NOT true according to the article?
  - Armored cable is a newer kind of wire.
  - NM cable is found in newer buildings.
  - Wires are unsafe in old buildings.
  - SE cable is not used underground.
- When do older wires need to be replaced?
  - when they are found in older homes
  - when NM cable is available for use
  - when bare wires or conductors are seen
  - when they are used for service entrances



armored cable (AC)



knob and tube wiring

### Vocabulary

- 3 Match the words (1-6) with the definitions (A-F).

- |   |                 |   |                    |
|---|-----------------|---|--------------------|
| 1 | — SE cable      | 4 | — NM sheath cable  |
| 2 | — knob and tube | 5 | — UF cable         |
| 3 | — armored cable | 6 | — metal-clad cable |

- a cable with an insulating material like thermoplastic
- wires that run through porcelain covers found in old homes
- wires for above ground use encased in a PVC jacket
- wires in steel insulation with a grounding wire
- wires for underground, wet areas in a thermoplastic jacket
- wires encased in spiraled steel or aluminum

4 Read the sentence pair. Choose where the words best fit the blanks.

1 conductor / jacket

A It looks like the \_\_\_\_\_ is bare.

B The \_\_\_\_\_ is cracked.

2 required / insulated

A Modern wires should always be \_\_\_\_\_.

B UF or SE cable are \_\_\_\_\_ for outdoor wiring.

5 Listen and read the excerpt from the magazine article again. When do you not need to replace older types of wiring?

## Listening

6 Listen to a conversation between a homeowner and an electrician. Mark the following statements as true (T) or false (F).

1 \_\_\_ The homeowner has lived in the house for many years.

2 \_\_\_ The wiring is nonmetallic sheath cable.

3 \_\_\_ The electrician will replace the wiring tomorrow.

7 Listen again and complete the conversation.

Homeowner: Thanks for 1 \_\_\_\_\_ so quickly. We just bought this house ... it's about 150 years old.

Electrician: It looks like it's still in 2 \_\_\_\_\_.

Homeowner: Yes, but we're worried whether or not the wiring is safe.

Electrician: 3 \_\_\_\_\_ . It looks like you've got knob and tube wiring.

Homeowner: Is that good or bad?

Electrician: It depends on the condition of the 4 \_\_\_\_\_ , if you know what I mean?

Homeowner: Sure. Well, what does 5 \_\_\_\_\_ ?

Electrician: No cracks or 6 \_\_\_\_\_ . That's good news.

## Speaking

8 With a partner, act out the roles below based on Task 7. Then switch roles.

USE LANGUAGE SUCH AS:

*We're worried whether or not ...*

*It looks like you've got ...*

*It depends on ...*

**Student A:** You are an electrician. Talk to Student B about:

- what Student B is worried about
- what type of wiring he or she has
- the condition of the wiring

**Student B:** You are a new homeowner. Talk to the electrician about your wiring.

## Writing

9 Use the conversation from Task 8 to fill out the customer feedback form.

Eddie's Electrics

## Customer Feedback Form

What type of service did we provide today?

\_\_\_ consultation

\_\_\_ repair / rewiring

Was our electrician on time? Y / N

Was he or she helpful? If so, please explain.

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