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PHYSICAL AND CHEMICAL CHANGES

SUBJECT-CHEMISTRY

CHAPTER NO- 2

Importance of chemical changes

PERIOD-7

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LEARNING OBJECTIVE

Students will be able to

- Understand the importance of chemical changes
- Familiarize with the types of chemical changes that occur in our daily life.
- Sensitize different life processes taking place in plants and animals and all chemical changes which help to sustain life.
- Familiarize with an example of simultaneous physical and chemical change.
- Understand the difference between physical and chemical changes

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WARM UP QUESTIONS

Recapitulation of the previous topic by asking following questions

- How will you know that a chemical change has taken place?
- Different types of energies are needed for different chemicals. Justify this statement by giving some examples.

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IMPORTANCE OF CHEMICAL CHANGE

- Burning of paper and log of wood
- Digestion of food
- Boiling an egg
- Chemical battery usage
- Electroplating a metal
- Baking a cake
- Milk going sour
- Various metabolic reactions that take place in the cells
- Rotting of fruits
- Decomposition of waste
- The explosion of fireworks
- The reaction between salts and acids.
- Rusting of iron
- Lighting a matchstick

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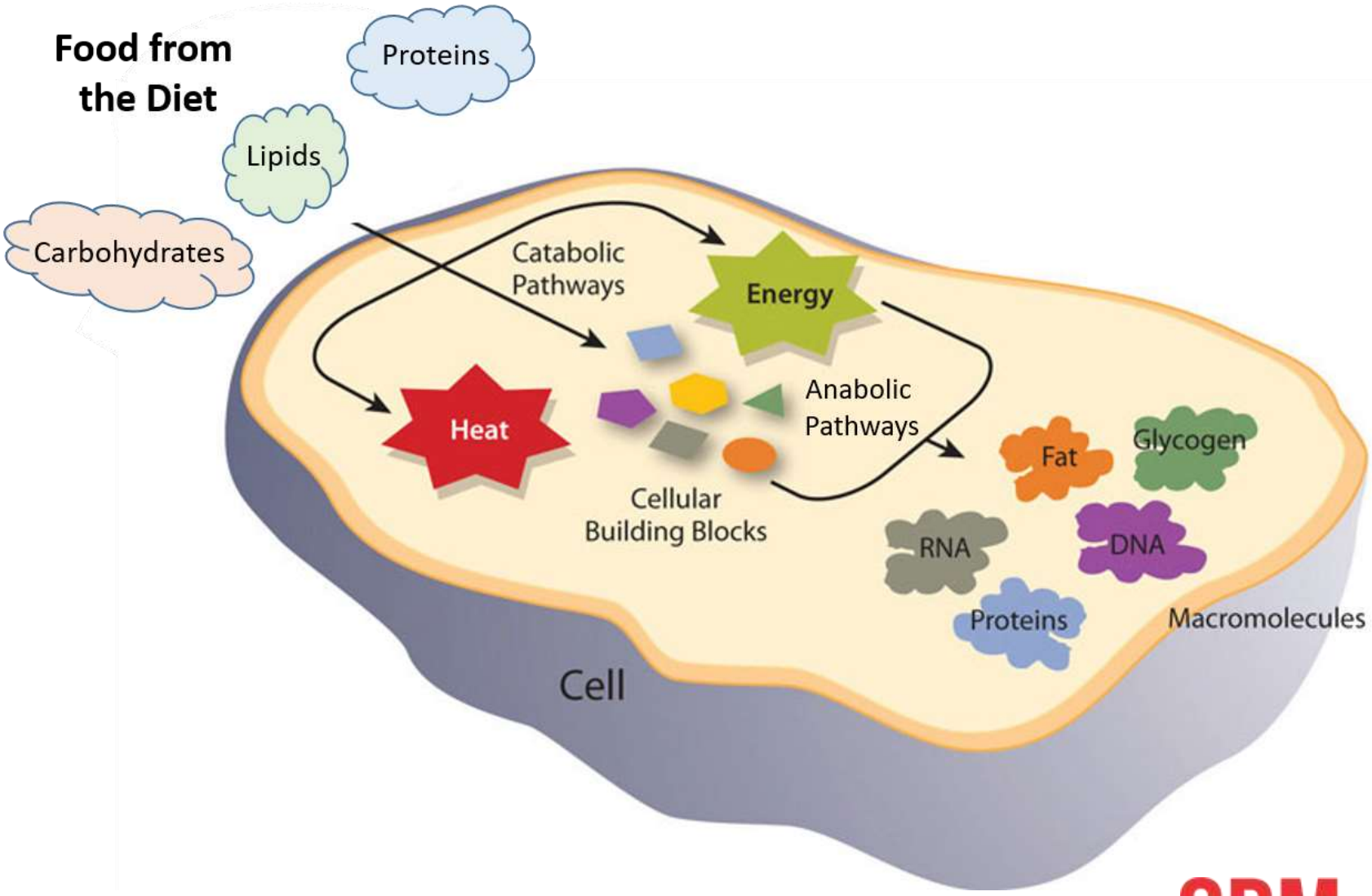

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SIMULTANEOUS PHYSICAL AND CHEMICAL CHANGE

- A change can't be both physical and chemical, but physical and chemical changes can occur simultaneously. This is what's happening with the burning candle: the wax is melting, which is a physical change, and it's combusting, which is a chemical change.

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DIFFERENCE BETWEEN PHYSICAL AND CHEMICAL CHANGE

Difference Between Physical and Chemical Change

Physical Change

- Change is temporary.
- No new substance is formed. There is change only in physical properties.
- Change can be reversed by simple physical methods.
- Energy may or may not be released or absorbed.
- Most of the time original form of the substance can be obtained easily by simple physical methods.

Chemical Change

- Change is permanent.
- New substances are formed with entirely different physical and chemical properties.
- Change cannot be reversed by simple physical methods.
- Energy is released or absorbed during chemical change.
- The original substance cannot be obtained by simple physical methods.

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HOME ASSIGNMENT

- Objective type questions-3,4
- Melting of wax is which type of change?
- Burning of candle is which type of change?
- Differentiate between physical and chemical change.

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THANKING YOU

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