

19 Food chains and energy – Part 1

—Answers

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Work through these after trying the questions yourself.

19.1 The direction in which energy flows (from one organism to the next).

19.2 An organism that makes its own food, usually by photosynthesis.

19.3 The fox.

19.4 About 10%.

19.5 So much energy is lost as heat at each level that too little is left to support many more levels.

19.6 At each step only about **10%** of the energy passes on; the rest is lost (mostly as heat). Eating the wheat is **one** step from the producer, but eating beef adds an extra level (wheat → cattle → people), wasting most of the energy —so the field feeds fewer people that way.