

*KS3 and upwards
science and food technology*

Timing - 10 minutes

*Pupil activity sheet I3 accompanies
this activity.*

I3. Would you eat these for breakfast?

The purpose of this exercise is to illustrate that *all* foods are chemicals; it is not intended as a test of a pupil's chemical knowledge.

The mention of the word 'breakfast' gives a clue to the identity of the foods. You may like to provide pictures or a list of possible correct answers to make the task easier.

Answers to Pupil activity sheet I3:

Food 1 - tomato

Food 2 - bacon

Food 3 - eggs

Food 4 - buttered toast

Food 5 - coffee

The following lists show the ingredients in five foods. What do you think these foods are? Would you eat them for breakfast?

FOOD 1:

WATER, SUGAR, CELLULOSE, MONOSODIUM GLUTAMATE (E621), CAROTENE (E160A), LYCOPENE (E160D), RIBOFLAVIN (E101), ASCORBIC ACID (E300), CITRIC ACID (E330), MALIC ACID (E296), OXALIC ACID, FLAVOURINGS

FOOD 2:

MYOSIN, ACTOMYOSIN, MYOGLOBIN, COLLAGEN, ELASTIN, AMINO ACIDS, CREATINE, LIPIDS, LINOLEIC ACID, OLEIC ACID, LECITHIN (E322), CHOLESTEROL, SUCROSE, GLUCOSE, PYROLIGNEOUS ACID, PHOSPHORUS, THIAMIN, RIBOFLAVIN (E101), NIACIN (E375), CYANOCOBALAMIN, PYRIDOXINE, SODIUM CHLORIDE, IRON, MAGNESIUM, POTASSIUM

FOOD 3:

LECITHINS (E322), CEPHALINS, LYSOPHOSPHATIDYL CHOLINES, SPHINGOMYELLINS, CHOLESTEROL, AMINO ACIDS, AVIDIN, LUTEIN (E161B), ZEAXANTHIN, PYRIDOXINE, COBALAMIN, BIOTIN, CHOLECALCIFEROL

FOOD 4:

GLUTEN, AMINO ACIDS, AMYLOSE, STARCHES, DEXTRIN, SUCROSE, PENTOSANS, HEXOSANS, MONO-, DI- AND TRI-GLYCERIDES, SODIUM CHLORIDE, PHOSPHORUS, CALCIUM, IRON, THIAMIN, RIBOFLAVIN (E101), NIACIN (E375), PANTOTHENIC ACID, VITAMIN D, METHYL ETHYL KETONE, ACETIC ACID (E260), PROPIONIC ACID (E280), BUTYRIC ACID, VALERIC ACID, CAPROIC ACID, ACETONE, MALTOL (E636), ETHYL ACETATE, ETHYL LACTATE

FOOD 5:

WATER, CAFFEINE, METHANOL, ETHANOL, BUTANOL, METHYLBUTANOL, ACETALDEHYDE, METHYL FORMATE, DIMETHYL SULPHIDE, PROPIONALDEHYDE, PYRIDINE, ACETIC ACID (E260), FURFURAL, FURFURYL ALCOHOL, ACETONE, METHYL ACETATE, FURAL, METHYLFURAN, DIACTYL ISOPRENE