

What are the Changes in the Blood in the Placenta, and how are they effected?

Describe the Nervous and Muscular forces by which Respiration is effected.

What are the Constituents of the Blood, and how is it formed, tracing it from the Chyme, inwards?

Describe the Functions of the Skin.

Describe the Functions of the several portions of the Alimentary Canal.

CHEMISTRY—Dr. SANGSTER.

Give briefly the two theories as to the nature of Electricity.

Describe the Composition, Preparation, and Properties of the compounds of Nitrogen with Oxygen, specially pointing out the relation between N , O , and the Nitrates, and N , O , and Nitrites.

Give Composition and Properties of Cyanogen and its Compounds.

Express by symbols the composition of the following Compounds:—Tartaric, Acetic, Nitric and Benzoic Acid, Grape Sugar, and Chloroform.

Describe the Chemical character and composition of the Fats, explaining briefly how they may be decomposed into their proximate constituents. Give general Formula for the so-called Fatty Acids.

Describe the Chemical relations and characteristics of Urea and Uric Acid, and explain how they may be separated from Urine.

Give a brief synopsis of the Chemistry of the Vegetable Alkaloids.

PRACTICAL CHEMISTRY—Dr. SANGSTER.

Describe the mode of preparing Pot Iodate, Absolute Alcohol, and Pure HCL.

Give the group tests for Lases, mentioning the principal Metals in each Group.

Give the distinguishing reactions by which you would recognise Salts of Copper, Lead, and Mercury.

What special reactions characterize Opium and Morphine, respectively?

What impurities are more or less frequently met with in Commercial Potassium Iodide, Sulphate of Quinine, and Chloroform, and how would you detect their presence?