

Biological Seminar: Techniques for studying the brain.

Please complete this worksheet during the seminar. You will have 35-40 minutes to complete the questions. We will have 10-15 minutes at the end to discuss the answers together as a class. You can work in groups if you want. Use the Biopsychology textbook to help construct your answers.

1. Describe the neuroanatomical techniques used in order to view neurons (Chapter 1).

- Golgi stain:

- Nissl stain:

- Electron microscopy:

2. Describe the following methods for visualising the human brain and Recording Human Psychophysiological Activity (Chapter 5).
 - X-Ray computed tomography (CT)
 - Magnetic resonance imaging (MRI)
 - Positron emission tomography (PET)

- Functional MRI (fMRI)

- Electroencephalography (EEG)

3. Describe the biopsychological paradigms of animal behaviour (Chapter 5).

- Open-field test
- Tests of Sexual Behaviour
- Tests of Aggressive and Defensive Behaviour
- Traditional Conditioning Paradigms

- Conditioned Taste Aversion
- Radial Arm Maze
- Morris Water Maze
- Conditioned Defensive Burying

4. Describe the procedures involved in conducting the following forms of invasive physiological research (Chapter 5):

- Stereotaxic surgery:

- Lesions:

- Electrophysiological recordings: