**Correlations: Watch the power-point presentation and fill in the work sheet below**

1. **Fil in the gaps:**

This is a measure of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ between \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It measures how strongly the variables are related with each other, and in which \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. If a strong correlation is found, a value from one variable can be used to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the corresponding value of the other.

1. **Draw a positive and negative correlation on the axes below**

Positive Negative

**3a) what are these graphs called? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**3b) Give one example of a positive correlation and one example of a negative correlation**

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1. **Fill in the gaps:**

We use a formula to find out what a correlation coefficient is. This indiciates the strength and direction of the correlation. The correlation coefficient cannot be any value other than those between -1 and 1. A score of \_\_\_\_\_\_ indicates a perfect negative correlation, and a score of \_\_\_\_\_ indicates a perfect positive correlation. A score of \_\_\_\_\_ indicates no correlation

1. **What correlation coefficient would indicate a…**

Weak positive correlation? Strong negative correlation?

Negative moderate correlation? weak negative correlation?

1. **Estimate the correlation coefficients for the scattergraphs**
2. b) c) d) e) f) g)
3. **Which of these are positive and which are negative criticisms of correlations?**

*Can be used when research would be impossible or unethical to manipulate an IV.*

*Cannot and must not infer cause and effect relationships*

*Can only detect linear (straight line) relationships.*

*One can predict the value from one variable based on the value from another variable if they are correlated.*