### YC/PL/20/1217 KS3/KS4, Lesson Plan

## **Probability & Luck**

10 hours (approx.)

## Overview: 2.7

Investigate the odds associated with one specific area of gambling. This could include sports betting, scratch cards, fruit machines or other area of your choice. Your work should take place over an extended period to gather data. Produce a power point with evidence of your findings. This lesson plan relates to challenge 2.7.

### Learning Objectives: To analyse probability & luck

•	To understand what we mean by 'odds' with regard to gambling.
•	To learn the rules of probability associated with a particular type of gambling.
•	To analyse different odds for different areas of gambling.
	To investigate if there is significant data in the specific research area.

#### **Learning Outcomes**

- 1. I can offer a personal definition of 'odds in gambling'.
- 2. I can understand the main rules of probability associated with a particular type of gambling.
- 3. I can analyse the odds associated with different areas of gambling.
- 4. I can find interesting research conclusions through data analysis.

### Resources

- 1. Power-point presentation on 'Probability & Luck'.
- 2. Infographics on 'Probability & Luck'.
- 3. Downloadable information sheets with facts and figures.
- 4. 'Probability & Luck' guidance notes and downloadable support materials.





# **Probability & Luck**



(30 minutes)

Group discussion on different areas of gambling or betting, with an initial focus on the kinds of odds involved and how these are created. It may be particularly useful to look at the accuracy of sports betting as compared to scratch cards, bingo or the national lottery.

### **Main Activity**

(Up to 9 hours)

### **Playing the Numbers Game**

This activity is best completed by students on their own or working in pairs, with an initial focus on which form of gambling or betting they find most interesting in terms of the odds. Initial focus should be on what the odds in each area mean with regard to chances of winning or losing, the amount of money won or lost and the frequency of certain outcomes occurring. The information obtained should then be turned into a presentation format which can be easily shared with others and which allows final data to be understood. Students should also draw a conclusion about their findings to share with others.

Findings from the discussion should be recorded in an appropriate format and shared. Students can use the skills sheet for 'Learning & Sharing' as appropriate. Students should use the appropriate skills sheet and complete the preparation and review sections to support this activity fully.

### **Plenary** (30 minutes)

### What have we learned?

This session should be a chance to share the learning between different students and to draw group conclusions about the odds involved in betting and gambling.

#### **Extension Task**

Students should find an occasion to share their findings with younger students through assemblies, information sessions, leaflets or other appropriate outcomes.



