

## Introduction

Top Science is an easy-to-play card game that introduces pupils to feeding relationships and habitats. All pupils aged 11-14 should be able to use Top Science. It could also provide older pupils with a starting point for further study.

## Running the activity

Pupils play Top Science in pairs. Cards need to be printed and laminated prior to use. Cards are shuffled and dealt face down. Pupils should not change the order of their cards. They take it in turn to nominate a category that their card scores highly in. If their value beats their opponent's, they win the card. This continues for each successive card until one player has won all the cards and hence the game. In some cases a category is not applicable for a card. The player should then select an alternative category.

The game consists of 35 cards. An additional card describes the categories for pupils. The game cards for this particular Top Science pack are also colour coded into five habitats:

- British woodland
- Freshwater stream
- Arctic
- Savanna
- Atlantic ocean

Pupils can use information from the cards to draw simple food webs for each habitat. They could then extend these with further research.

The cards may also be used to play a version of gin rummy. This activity develops knowledge of food web vocabulary. Pupils shuffle the pack and deal seven cards to each player. They take it in turns to take a card from the remaining pack, which they either discard or keep, discarding a different card from their hand. The next player may take the top card from the discarded pack, or a new card. Pupils aim to collect sets of cards which are made up of:

- Three, four or seven cards from the same habitat.
- Three, four or seven cards from the same trophic level (remembering that there are only five tertiary consumers in the pack).

When pupils have a set of cards they may lay them down face upwards. The winner is the first player to lay down seven cards in sets.

## Safety

Not applicable.

## More ideas

- One card can be selected for more detailed research.
- Pupils produce a card of their own for a new organism. Forward these to the ASE Science Year team. We will select the most creative and well-researched card, and produce it to the same specification as the pack.
- Year 9 pupils can use the game pre-SATS to review feeding relationships.
- Use information from the cards to draw pyramids of number and biomass.

## Learning outcomes

- Understand that food webs are composed of several food chains, and that food chains can be quantified using pyramids of numbers.

## Prior learning

A basic knowledge of food chains.

## Where the activity fits in

QCA Unit 7C Environment and feeding relationships

## Skills

Communication, vocabulary