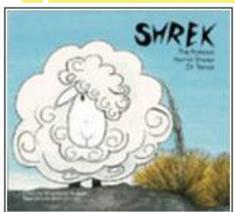## Take This

Read:
*Shrek, the Famous Hermit Sheep of Tarras*
by Tarras School Students and Teachers
ISBN 0476011795,
9780476011973

Years 3-4

## GEOMETRY

**Position and orientation**
Locate Tarras and Bendigo Station on a NZ map Locate other key places of interest: (Lake) Wanaka, Cromwell, Lake Dunstan, Clutha River, State Highway 8. Discuss map features that the students notice.

Using information from the book, images of landscape features, have students create their own 'fictional' map of Shrek's area. Have them include a simple key of its features and record, using positional and directional language, the route Shrek took from the paddock to his cave, and several different paths the shepherds could have taken to find him.

## GEOMETRY

**Transformation**
Explore vertical and horizontal lines of symmetry. Tell students that in his life, Shrek raised over $170,000 for Cure Kids NZ. Have them create a Shrek slogan for their poster, eg. *Shrek the helper, Cure Kids' Champion, Baa Benefits Kids, Hermit Helper, Fleecy Funds*. Explain that their slogan (using lower case or capital letters) should include *at least* 6 letters that have one line of symmetry. (Shrek was a hermit for 6 years).

## MEASUREMENT

**Read the true story of *Shrek* (c. 1994 – 6 June 2011)**
*Google for more information*

Create and use appropriate units and devices to measure mass and time.

Introduce and model a simple timeline of the school year, highlighting equal intervals of months. Together list key events in Shrek's life. Have students work in pairs to combine their understanding of the model, and the events list, to create a timeline of Shrek's life. Share and discuss successful representations including equal divisions for years. Have students refine their time lines and include these on a poster.

Have students work in pairs with kitchen scales to identify several items each of which have a mass of 1kg. On a Shrek poster, show in a diagram the weight of Shrek's wool (25kg) in the equivalent weight of their 1 kg benchmark items. Use scales to investigate the gram weight of a ball/sample of wool. Understand from using the scales that 1000g = 1kg. With support, investigate and work out an approximate number of balls of wool that could have been made from Shrek's fleece. Add this information to their poster.

## STATISTICAL INVESTIGATIONS AND LITERACY

*Probability*: Discuss the likelihood of everyone in the class on one day wearing a garment made fully or in part from wool. Explore the range of language from impossible to certain. Have children check the label in one of their outer garments to see if it contains wool. Record and discuss results.

Discuss and agree to run a Shrek charity fundraiser (eg, gold coin trail, whanau/community sponsor children to wear a woolly/hot/thick jacket for a whole day/school week). Have children work in pairs to develop a plan to do this, including collecting information (survey) from the class/school about the preferred charity or type of fundraising event. As a class discuss, agree on and carry out the best plan.

Have students gather, and work in pairs to sort and display the data using a tally chart/bar graph. Have them present their displays and findings. As a class critique the investigative process followed. Record the suggestions for improvement.

Carry out the fundraiser. Attach data displays and results, and photos to Shrek posters.

## NUMBER AND ALGEBRA

As part on ongoing numeracy learning, using partitioning strategies, simple multiplication and fractions, write equations (using symbols correctly) to solve closed and open problems related to events in Shrek's life. Eg.
For how many seasons/months/weeks was Shrek a hermit?
Shrek grew 25 kg of wool in 6 years. How many did Shrek grow each year?
*If* Shrek's fleece had weighed 1kg when he ran away, and it's weight doubled each year after that, how heavy would it have been when he was found?
*If* Shrek's cave was twice as high as it was wide, what might the measurements have been?
*If* Shrek raised 1/3 of money for Cure Kids by selling his fleece and 2/3 from event money, what 2 digit combinations might there have been?
*If* there were 15 people with cameras filming his fleece being shorn, and these people stood together in 4 groups that were not all the same size, how many camera people could have been in each group?
Challenge students to record their solutions using diagrams, tables and equations.