

Fairytale Kingdom

Part 1: Rapunzel's Tower KS2 activities

Maths: Hair-raising heights

Ask the children to answer the following questions based on Rapunzel's tower. They could work individually, in pairs or in small groups:

1. Rapunzel's Tower measures 255m from the ground to the window. Rapunzel's hair is 1250cm long. How many metres does Rapunzel's hair need to grow before it reaches the bottom of the tower allowing her Prince to climb up it?

[242.5m]

2. Rapunzel's hair grows 5cm per day. How many days will it take for her hair to reach the bottom of the tower?

[48.5 days]

3. The wicked enchantress who locked Rapunzel up is thinking about moving her to an even taller tower. The new tower is 600 metres tall with a radius of 40m. Using squared paper and a suitable scale, draw a diagram of this tower. What would the diameter of the tower be?

[80m]

D&T: A tower of strength (Unit 6A)

Investigate what materials make strong buildings. Split the class into groups and provide each group with a range of paper-based materials, for example: ordinary paper, sugar paper, card, art straws, newspaper, and so on. Challenge each group to build a tower using any combination of materials. Once the models are finished, conduct fair tests for: wind resistance (you could use a desk fan or stand them outside the classroom on a breezy day) and water resistance (you could use a water spray), as well as appearance. Elicit which structure was the most effective.

D&T: Intruder alert (Unit 4D)

Explain to the children that the wicked enchantress who locked Rapunzel up is thinking of installing an intruder alarm on the tower, in case anyone tries to break in and rescue her. Allow time for the children to explore some simple circuits incorporating buzzers and switches. Then, challenge them to design an intruder alarm for the tower. Remind them that as the tower has no doors, the alarm will need to be fitted to a wall – for example, it could be disguised as ivy growing up the tower or a fake stone that sets off the alarm when touched.

Literacy: Tower poetry

Hold a class discussion about what towers are used for. Look in a dictionary for a definition as a starting point. You could look at examples from history, such as towers used for defence or punishment. Thought shower children's ideas and using a spider diagram, expand on these ideas to help create a sense of setting and atmosphere. Ask questions such as: *How would it feel to be locked inside a tower?* Invite the children to write a shape poem based on their ideas. For example, they could write a poem about a soldier on nightwatch in a tower during a battle, or a bird nesting on the roof of a church tower.

