How scary should a calendar be?

four hours work

© The Nuffield Foundation, 2001
Young children are often encouraged to make small calendars to give to parents and friends as gifts, but if they have never used one themselves they don’t really understand what they are for. In this unit they will find out how calendars work and how to make a calendar with a monster theme. Monsters are always popular with children, and here they have control over the design of their own monsters – they might like them scary or they might like them to be friendly. Computer software becomes an exciting design tool for small groups of children working together to develop and edit designs for their ideal monster.

In this unit children will learn:

- to consider the appearance and function of calendars;  
  (Session 1)
- about the visual characteristics that make monsters friendly or scary;  
  (Session 2)
- to make a monster on screen using an object-based graphics package;  
  (Session 3)
- to use computer software as a design tool;  
  (Session 3)
- to work as a team in a small group.  
  (Sessions 3 and 4)
the small tasks
the focused practical tasks

1. Investigating calendars 30 minutes
2. Looking at monsters 30 minutes
3. Experimenting with the software 30 minutes
4. Writing the specification 30 minutes

the big task
the design and make task

The big task is to design and make a calendar illustrated with monsters, one for each month of the year. Each monster will be designed and produced by a team of children using suitable computer software. The calendar will be made to meet the preferences of the users who might be the class themselves or some other group in the school. 60 minutes

The evaluation 30 minutes
Unit review 30 minutes
SECTION 3

children’s decisions

The children can decide on the following:

- where the calendar is to be used
  required learning in Session 1,
  design decision made in Session 4;

- what sort of calendar it should be
  required learning in Session 1,
  design decision made in Session 4;

- whether the name of the month should
  be on the picture
  required learning in Session 1,
  design decision made in Session 4;

- what kind of monsters they should be
  required learning in Session 2,
  design decision made in Session 4;
**children’s decisions**

**design decisions**

- what body parts the monster will have required learning in Sessions 2 and 3, design decision made in Session 4.

- what head parts the monster will have required learning in Sessions 2 and 3, design decision made in Session 4.
session one

investigating calendars

Teacher input

Show the class a selection of old calendars. As a minimum your selection should include a calendar with all the months on one display sheet, one with flipover pages for the months and one with a tear-off sheet for each month. If you cannot find commercial examples then it would be easy to make them yourself. For the date section you can buy ready-made small calendars. Explain what the words mean (the months of the year and the days of the week) and what the numbers mean. A good starting point is today’s date. Then several children could try to remember their birthdays and you could mark each one with a name and a red circle on the largest calendar. Now the calendar has become a useful birthday-finder. Explain that the class is going to make one large calendar with 12 pictures and that now they will have a chance to investigate how it might be made.

Pupil activity

Working individually children should have the opportunity to try out calendar ideas with paper and fixings. They can use pictures drawn or cut from magazines and can make sample date sheets or use sheets from old calendars. Tell them that the important thing is to make a model of several types of calendar and see if they can come up with some new ideas of their own. At the end of the session each child should show their favourite model and these should be kept for a display.

Resources

Stimulus: selection of calendars;
Consumables: paper, card, treasury tags, magazine pages or similar for pictures, masking tape;
Tools: pens, pencils, scissors, hole punch, stapler.

Health and safety check

Discuss the hazards and risks involved in using scissors, hole punches and staplers and how these risks can be controlled by careful handling and using the correct procedures.
looking at monsters

Teacher input
Start with a poem, story or picture of a monster. The day before this session, ask the class to bring in a picture or book about monsters if they have a favourite. Ask one or two children to try to look scary, then friendly. Talk about the appearance of monsters e.g. space monsters often have antenna, and ask the class to guess whether a monster is friendly from just looking at it. Draw some features on the board and ask the class to spot the clues e.g. bared teeth, narrowed eyes and grabbing hands are scary; wide eyes, smiley mouth and dancing legs friendly. Tell the children that monsters will be the theme of the class calendar and that now they will have the chance to try out some ideas for monster features. Write the words “scary” and “friendly” on the board. Also tell them that they will be using computer software to design and print out their monster pictures and that they will have a practice with that another day.

Pupil activity
Tell the class that they will each work individually to explore features, trying to make them scary or friendly. Explain that they can use gummed paper shapes of different sizes to make eyes, expressions, different types of bodies, arms and legs. They should label those examples that they think are scary or friendly. At the end of the session the samples they make can be put on display.

Resources
Stimulus: monster poem, story or picture;
Consumables: gummed paper shapes, card, paper, sticky tape;
Tools: pencils, pens, scissors.

Health and safety check
Discuss the hazards and risks involved in using scissors and gummed paper and how these risks can be controlled by careful handling.
experimenting with the software

Teacher input
Tell the class that they are going to learn how to make monsters on the computer. Explain that they will make the actual monsters for the calendar another day; today is for practice. The best starting point is a whole class lesson to introduce children to the software and tools available. The software used as an example is Monsters, which is a MyWorld2** module, but any object-based drawing program could be used (i.e. moving and changing given shapes rather than painting their own). It is important that the children can understand and use the chosen software tools available.

Show the children how to choose monster parts or shapes; flip, rotate, and re-size the monster parts; discard the parts they don’t want; add text to the screen; save and print from the screen.

Put the class into 12 groups, as there will be 12 pictures on the final calendar. They should work in those groups today and in later sessions. Put the words “scary” and “friendly” up near the computer.

Pupil activity
A very useful starting point is to have a monster already on screen and ask each group to build a new monster to match it exactly. This should involve using all the tools, and would help you to identify those children who need more help. Then children should try out monster ideas on screen in teams – filling screen with several monsters to see which elements look scary or friendly. Each group should be allowed to print at least one sheet with design ideas on it. (If the printer is slow the samples should be saved and printed later.) These sample sheets can then be put on display.

Resources

Tools:
- computer
- graphics package
- colour printer

Health and safety check
Discuss the hazards and risks involved in using computers and how the risks can be controlled by sitting properly at the correct height and not straining to see the screen.

* The ‘Pupil activity’ could be spread out over a few days if computer access is limited.

** MyWorld is a framework program available in most primary schools. It has hundreds of additional modules that can be purchased separately from educational software suppliers.
SECTION 4  
**teaching the unit**

**writing the specification**

**Teacher input**
Remind the class about the calendar they will be making. Point out the displays of their design ideas for calendars, monster features and screen monsters. Tell them that today they will be making some important decisions about the way they will make the calendar. They will be writing two specifications, one will be a record of the whole class decisions about the calendar and the other will be a record of each small group’s decisions about their page of the calendar.

Make a large chart and record the class specification; see the ‘Class monster calendar specification’ in the resources section. The decisions to be made are: where will the calendar be used? (e.g. our class, the school office, the library); what sort of calendar should it be? (e.g. one large sheet with all 12 pictures, flipover made of card, card on wall with picture changed each month); should the name of the month be on the picture? (e.g. monster + April, just monster); what kind of monsters should they be? (scary or friendly).

If the calendar might be for another place in the school, pre-arrange for someone from there to come in and tell the class his/her preferences during this session. Give each group a month to go with their picture.

**Pupil activity**
Children will get into their design groups to discuss the features they want for their own monster. They will record their design decisions on ‘Our monster calendar specification’, available as a ready-to-copy sheet. They will decide: the monster’s body parts (e.g. arms, legs, head, body, tail); the monster’s head parts (e.g. eyes, mouth, teeth, ears, antennae).

The sheets for each member of a group should contain identical design decisions if they have made these decisions as a team.

**Resources**
- **Stimulus:** calendar samples from Session 1, monster parts samples from Session 2, computer design samples from Session 3;
- **Consumables:** paper, ‘Class monster calendar specification’, ‘Our monster calendar specification’;
- **Tools:** pencils.

**Health and safety check**
Discuss the hazards and risks involved in working as a group and how these can be controlled by the way the children behave and treat one another.
SECTION 4

the big task: making the calendar

Teacher input
Tell the class that they are ready to make the calendar. Have prepared the card or cards for mounting the pictures as agreed in the class specification and show the children what they will need to do when their pictures are ready. Remind them to use only a little glue and to spread it out. Demonstrate what you mean with a piece of paper and card. Tell them that after they have mounted their pictures you can finish assembling the calendar.

Pupil activity
Tell the children to work in their design groups to build their monsters for the class calendar. Remind them to work together as a team, and to make sure everyone takes part. They should have their ‘Our monster calendar specification’ sheets to refer to as they work, and should be able to see the ‘Class monster calendar specification’. The final design should be saved and then printed out. When the picture is ready it should be mounted on card as planned. Some groups will need help with this.

Extension work
Children who finish early or who need an extra challenge could be asked to do the following.

♦ Design and make a birthday chart with the date of their birthdays and a birthday monster.
♦ Make a list of ways a calendar could be useful in the home.

Resources

Stimulus: prepared card(s) for calendar, ‘Our monster calendar specifications’ and ‘Class monster calendar specification’ sheets;

Consumables: glue, card, fixings as required;

Tools: graphics package, colour printer.

Health and safety check
Revisit the discussion about controlling risks when working in a group. Revisit the discussion about controlling risks when using computers.

* The computer activity could be spread out over a few days if computer access is limited.
Teacher input
Tell the class that it is time to evaluate the calendar they have made. Show them the ‘Class monster calendar specification’ where their design decisions were recorded, and remind them of what those decisions were. Explain that they will need to compare the actual calendar with the specification to see if it turned out the way they planned. Tell them that they will be evaluating their own monster later. Make sure everyone can see the finished calendar and the ‘Monster calendar class specification’ and ask the following questions.

♦ Who is the calendar for?
♦ Do they think the calendar looks good? (If it is for another person or group make sure to arrange for them to see it and made a comment on it either before or during this session.)
♦ What kind of calendar is it?
♦ Is the name of the month on each picture?
♦ What kinds of monster are on the calendar?
♦ Does the calendar look the way we expected it to?
♦ What changes did we make? Why?
♦ Which bit was the most tricky?

Pupil activity
Children should each fill in ‘Our monster calendar evaluation’, available as a ready-to-copy sheet, comparing their ‘Our monster calendar specification’ with the final monster their group produced. One person from each group should tell the class about their monster and their evaluation.

Resources
Stimulus: the finished calendar, ‘Class monster calendar specification’, ‘Our monster calendar specifications’;
Consumables: ‘Our monster calendar evaluation’;
Tools: pencils.

Health and safety check
Discuss the hazards and risks involved in using the monster calendar and how the risks can be controlled.
Teacher input

Explain to the class that it is important to think about how to get better at design & technology and that they can do this by discussing the following questions.

♦ What did you learn about calendars?
♦ How can you make a monster look friendly?
♦ How can you make a monster look scary?
♦ Was it difficult using the computer to make your monster?
♦ What did you get better at?
♦ Would you choose to use the computer to design something else?
♦ Did you always agree with the other people in your group?
♦ Did you work together as a team?
♦ What could you have done better?

Pupil activity

The class should discuss the questions in their groups and you should ask each group to say what they could have done better. The class should agree a target for getting better based on their answers for their next design & technology unit.

Resources

Stimulus: finished calendar, any samples from Sessions 1, 2 or 3.

Health and safety check

Discuss whether the class used hazard recognition, risk identification and risk control to design and make safely.
### Vocabulary

<table>
<thead>
<tr>
<th>Session 1</th>
<th>Session 2</th>
<th>Sessions 3</th>
<th>Sessions 4–7</th>
</tr>
</thead>
<tbody>
<tr>
<td>calendar, months of the year, days of the week</td>
<td>monster, scary, friendly, eye, mouth, teeth, antennae, arm, leg, wings, tail</td>
<td>computer software, screen, save, select, drag and drop, re-size, turn</td>
<td>design specification, team, make, evaluation, improve</td>
</tr>
</tbody>
</table>

### Resources Summary

<table>
<thead>
<tr>
<th>Stimulus materials</th>
<th>Consumable materials</th>
<th>Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Session 1</strong></td>
<td>selection of calendars</td>
<td>paper, card, treasury tags, magazine pages or similar for pictures, masking tape</td>
</tr>
<tr>
<td><strong>Session 2</strong></td>
<td>monster poem, story or picture</td>
<td>gummed paper shapes, card, paper, sticky tape</td>
</tr>
<tr>
<td><strong>Session 3</strong></td>
<td>calendar samples from Session 1, monster parts samples from Session 2, computer design samples from Session 3</td>
<td></td>
</tr>
<tr>
<td><strong>Session 4</strong></td>
<td>calendar samples from Session 1, monster parts samples from Session 2, computer design samples from Session 3</td>
<td>paper, ‘Our monster calendar specification’, ‘Class monster calendar specification’</td>
</tr>
<tr>
<td><strong>Session 5</strong></td>
<td>‘Class monster calendar specification’, ‘Our monster calendar specification’</td>
<td>glue, card, fixings as required</td>
</tr>
<tr>
<td><strong>Session 6</strong></td>
<td>the finished calendar, ‘Class monster calendar design specification’, ‘Our monster calendar specification’</td>
<td>‘Our monster calendar evaluation’</td>
</tr>
<tr>
<td><strong>Session 7</strong></td>
<td>finished calendar, any samples from Sessions 1, 2 or 3</td>
<td></td>
</tr>
</tbody>
</table>
**literacy**

This unit supports the ‘Literacy strategy’ objectives of reading and writing labels and captions in Year 1.

**Numeracy**

This unit supports many objectives from the ‘Numeracy strategy’ for Year 1. The children will need to use everyday language to describe the position of the shapes that make the monsters and the movement needed to put them together. They will be able to talk about turning shapes and use whole turns and half turns.

A lot of sequencing work can be covered when ordering the days of the week and seasons of the year. More able children will be able to move on to ordering the months of the year.

The children will be able to develop their counting to 31 and read and write the numbers for their calendar.

**ICT**

This unit covers many of the learning objectives in the QCA SoW 1A ‘An introduction to modelling’.

The children will develop an understanding that a computer allows the user to make choices and that different decisions lead to different outcomes. They will learn to move a mouse and place items accurately on a screen. They will be able to fill their monsters with colour and print their work.

Producing a calendar will enable the children to create a representation of a fantasy situation as in the integrated task of the SoW.
Class monster calendar specification

Class: ____________________________  Date: ____________________________

1. Where will the calendar be used?

________________________________________________________________________

2. What kind of calendar?

☐  

3. Will the name of the month be on each picture?

☐ No  ☐ Yes

4. What kind of monsters will we make?

☐ friendly  ☐ scary
Our monster calendar specification

Name: ___________________________  Date: ___________________________

Our monster’s body will have

_______ arms  _______ legs

_______ wings  _______ tail

Our monster’s head will have

_______ eyes  _______ mouth

_______ teeth  _______ antennae
Our monster calendar evaluation

Name: ___________________________ Date: ______________________

We wanted:

_________ arms

_________ wings

We wanted:

_________ legs

_________ tail

Our monster has:

_________ eyes

_________ teeth

Our monster has:

_________ mouth

_________ antennae

_________ eyes

_________ teeth

_________ antennae
Acknowledgements

Nuffield Curriculum Project Centre Team
David Barlex, Director Nuffield D&T Senior Lecturer Brunel University
Jane Mitra, Deputy Director and Educational Consultant
Nina Towndrow, Project Administrator

Authors and contributors
Eileen Birkenhead, Educational Consultant
Daniel Davies, Bath University
John Garvey, Brunel University
Rob Johnsey, Warwick University
Teresa Linton, Grasmere C of E Primary School
Lynne Orford, Holtspur School, Beaconsfield
Chris Purdie, Townsville Junior Grammar School, Queensland, Australia
Cy Roden, Educational Consultant
Marion Rutland, Roehampton Institute University of Surrey
Joy Simpson, Whipton Barton Middle School, Exeter
John Twyford, Exeter University

Design
Dave Mackerell, Studio Communications

Evaluation
Patricia Murphy and Marion Davidson of the Open University

Health and Safety guidance
Anna Wojtowicz and Caroline Reynolds from the Health and Safety Executive

Illustration and 2D/3D model making
Nathan Barlex

Proof reading
Joanne Jessop, Sue Byrne

The Project appreciates the efforts of all those teachers who taught trial units of work and provided valuable feedback. The Project is grateful for all the support it has received from the Advisory Services.