Teachers’ Notes

Aimed at Primary pupils, the ideas in this study guide are intended as starting points for a cross-curricular project on the film ‘A Bug’s Life’ at Key Stages 1 and 2. Many curriculum areas are covered although the focus is on ICT, in particular, the Internet.

The activities seek to complement and extend the pleasure the children will have derived from a visit to the cinema whilst at the same time meeting some of the requirements of the National Curriculum, The National Literacy Strategy and Scottish Guidelines. The table provided on pages 15 and 16 can be used for planning and record keeping.

There is a glossary at the back of the guide (page 14) with clear explanations of all the highlighted words that the children can use themselves. This page has an attractive border. Simply cover up the text and photocopy to create special sheets for the children to write up their work. There is also a copy of Aesop's fable (page 10) 'The Ants and the Grasshopper' which can be photocopied and enlarged if needed.

Film Synopsis

Walt Disney Pictures and Pixar Animation Studios, join creative forces again with their second fully computer-animated feature ‘A Bug’s Life’ directed by Academy Award ® winner, Randy Newman. The movie is loosely based on one of Aesop’s famous fables ‘The Ants and the Grasshopper’. Our hero Flik’s ant colony is under attack and he takes on a dangerous mission to Bug City to enlist the support of tougher bugs to help. Inadvertently he gets a troupe of unemployed circus performers and the fate of Ant Island rests in their hands...

UK release date: February 5, 1999
Certificate : U
Running time: 94 minutes
Computer Power

Twenty years ago, no one had heard of CGI - or Computer Generated Images. Models and makeup were used to create special effects instead of computers. Today, mostly all of the special effects we see in films are created by computers. 'A Bug's Life' is no exception, in fact, the CGI in this film are at the very forefront of technological development.

So, how did the creators of the film create shots showing 800 ants, thunderstorms and drops of water from an ant's-eye-view and make it look as real as possible? Sixty animators worked on 'A Bug's Life' - and here's what they had to do to make their bugs look real.

They started where you would expect - in their backyards looking for insects. They very carefully studied what insects looked like, how they moved and ate and how they changed. The animators then drew them on to paper and started to develop the insect characters for the film. To make the insects less scary, they altered things, for instance, the ants have four legs, not six and have eyes like humans. Models were then made of the drawings, so that the animators had something three-dimensional to work with. Once this was done, the images were scanned into the computer. Once they are programmed in, they can become moving puppets - not with strings - but as pictures on a screen.

In the film 'A Bug's Life', we are drawn into the insect world. We go under the grass, through the mud and into Bug City as if we are insects ourselves. Never before have we been given the chance to see just what it is like to be an insect as we have in this film. To create such a detailed film version of the insect world, it took all sixty animators one week to complete 3 -5 seconds of computer animation. The most difficult scenes took over 100 hours per frame to create. The average shot took 15 hours to make.

MATHS TASK

If it takes one week to complete 5 seconds of computer animation can you work out how long it takes to complete a minute? ......................

What about 5 minutes? .................................................................

What about half an hour? .............................................................

The film is 94 minutes long. Estimate roughly how long it took to make the film

Now work out the real answer and check how close you were ..............
Why CGI?

What are the advantages and disadvantages of using Computer Generated Images compared to other methods of animation?

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<tr>
<th>ANIMATION</th>
<th>DESCRIPTIONS</th>
<th>FOR</th>
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<tr>
<td>drawn animation - 'The Lady and the Tramp'</td>
<td>A drawing is replaced by another in a sequence. Each drawing is slightly different from the one before.</td>
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<tr>
<td>cut out animation - 'Paddington Bear'</td>
<td>Cut out shapes are moved around or replaced by other cut outs.</td>
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<tr>
<td>model animation (stop-motion animation) - 'James and the Giant Peach'</td>
<td>Puppets are positioned and filmed before being moved ever so slightly and filmed again.</td>
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<tr>
<td>computer animation (CGI) - 'A Bug’s Life'</td>
<td>Three-dimensional models are drawn on a computer screen and moved around.</td>
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**TASK**

Find out about the different types of animation listed below. Read the descriptions and then write the argument for and against it. Think about how it looks, how long it takes, how expensive it might be and how it translates to the 'big screen'. For instance, cut out animation might not look as 'real' as CGI, but it is very easy to do and you don't need a computer to do it!
To infinity and beyond!

'A Bug's Life' is a CGI film made by the people who made 'Toy Story' and 'Toy Story 2'. It shows us the insect world from a bug's point of view. If that is what can be done in 1999 imagine what could be possible in 2099!

CGI means that we have the technology to make a film about anything. It could be a film about life at the end of the rainbow or on the dark side of the moon. What film would you make? In the box below write a short proposal (suggestion) of what you think would make a great CGI movie.

PROPOSAL FOR A CGI MOVIE

Genre (what type of film will it be?)

Characters (who is going to be in your film?)

Setting (where is the film set?)

Era (what period of time will it be set in?)
Knee-high to a grasshopper

Imagine being as small as an ant: gross would look like a forest of trees and the trees would look like mountains; a matchbox would look like a huge building to get lost in; one human footstep would be like an epic journey for an ant.

The film 'A Bug's life' manages to get this across perfectly using CGI to give us a chance to see what nature looks like up close.

To get all of the details right the filmmakers actually built a tiny - insect-size camera and dragged it through flowers, leaves and grass so that they could get a clear idea of what it must be like to live life as a bug.

TASK 1

What would it be like to be an insect in your classroom? What would your classroom look like?

Draw the following places from an insect's point of view:

a) on the board wipe
b) in the bin
c) in a lunch box
d) in the teacher's drawer
e) on the computer keyboard
f) in the technology cupboard
g) under your desk
h) inside a pencil case
i) inside the teacher's coffee cup
j) on the bookshelf

TASK 2

Choose one of the places in TASK 1 and write an adventure for your insect. Maybe it gets shut inside your pencil case and transported to your home. Or maybe it nearly gets washed away when your teacher's coffee cup is washed up. Write your story and then illustrate it with drawings showing what is happening to your brave bug!

TASK 3

Using the Internet find out how insects see. Draw what it is like to have a fly's vision.
Film versus reality

The insects in the film are characters in a story but how do their real-life counterparts compare to the screen versions?

**TASK**

Below is a list of the main insect characters in the film and a brief description of how they behave on the big screen. Using the internet and information books find out about the real-life insect *equivalent* and draw it beside its name on this page and the next.

<table>
<thead>
<tr>
<th>Cartoon character</th>
<th>Real-life insect Description and drawing</th>
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<tbody>
<tr>
<td>Flik is the brave little ant who has mighty big plans for saving his <em>colony</em>. Even when the going gets tough this <em>resourceful</em> but <em>misguided</em> ant risks everything by keeping his hopes high despite some major setbacks and the fact that other ants lack faith in him.</td>
<td>ANT</td>
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<tr>
<td>Hopper is the grasshopper leader whose tough <em>exterior conceals</em> an even tougher <em>interior</em> and a <em>superior intellect</em>.</td>
<td>GRASSHOPPER</td>
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<tr>
<td>Slim is an <em>intellectual</em> walking <em>STICK INSECT</em> stick insect who takes his acting a bit too seriously especially considering that he is a clown in a run-down flea circus.</td>
<td>STICK INSECT</td>
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<tr>
<td>Heimlich is a carefree caterpillar clown with a thick German accent who is happiest when some food is on offer.</td>
<td>CATERPILLAR</td>
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<tr>
<td>Cartoon character</td>
<td>Real-life insect Description and drawing</td>
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<tr>
<td>Francis, the most unladylike ladybird, who finds that it is not easy being the male of his species</td>
<td>LADYBIRD</td>
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<td>Manny is a pompous praying mantis magician who prays for the good old days when audiences responded to his act.</td>
<td>PRAYING MANTIS</td>
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<td>Gypsy is a lovely moth who adds colour to P.T.Flea's magic act and helps her magician mate, Manny, keep his head about him.</td>
<td>MOTH</td>
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<tr>
<td>Rosie is a spider who has forgotten how to spin a web - which has drastic consequences during the circus scene.</td>
<td>BLACK WIDOW SPIDER</td>
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<td>Tuck and Roll are two wacky gymnasts that do not understand a word of English and have not got a clue what is going on around them.</td>
<td>WOODLICE</td>
</tr>
<tr>
<td>Dim is the loveable, not-too-bright beetle who stars in the circus wild animal act. This big brute may I the part but his low tolerance pain makes for some embarrassing moments.</td>
<td>RHINO BEETLE</td>
</tr>
</tbody>
</table>
TASK 2

Once you have found out about your insect you could compile an information leaflet about the real lives of the stars of the movie! Use all of the most interesting facts about them to make it really good, for instance, did you know that the praying mantis can see behind him when he is looking forward?!

Bug ballads

In 'A Bug's Life', Princess Dot and her friends welcome the 'heroes' (the circus bugs) to Ant Island by showing them an improvised play of what they think the visitors will do to the evil grasshopper. They use props made out of leaves and music played on seeds and acorns to make their performance better.

TASK 1

In groups make up a short play to show what happened in the film when the ants managed to fight off the grasshoppers. If you have not seen the film act out a play version of Aesop's fable on page 9. Think about how you can make your play more dramatic - you could use music or even special effects.

TASK 2

In the Film 'A Bug's Life' the hero, Flik, takes it upon himself to get help from what he thinks is a daring band of do-gooders. What he doesn't realise is that the bugs he comes across are actually unemployed circus performers. Luckily, they come up trumps in the end and help save the ants from the evil grasshopper. By the end of the film, they have come a long way from PT Flea's third rate circus! The circus bugs are enjoying a new-found popularity after their triumph against the grasshoppers. They are now busy touring the world with their circus act. Imagine that they are coming to your town. How would you let people know that they are coming? Design a poster advertising the bugs and their circus as imaginatively as possible. You could include pictures of the performers themselves:

Slim (stick insect clown)
Heimlich (caterpillar clown)
Francis (ladybird clown)
Manny (praying mantis magician)
Gypsy (moth magician's assistant)
Rosie (tightrope walking spider)
Tuck and Roll (acrobatic woodlice)
Dim (rhino beetle who is the 'ferocious' star of the wild insect act)

You could also include some information telling people what to expect when they come to see the circus. Make it as eyecatching and interesting as possible. If you can, have a look and see if you can find some circus posters for inspiration.
Rosie's guide to becoming a web wizard

The Internet is a way of communicating with people from all over the world. It is an international communications network. Which means that people who are linked to the Internet through their computers can communicate with anyone else who is linked all over the world.

Being linked to the Internet means we can send letters to other users in seconds by e-mail, access huge stores of information on any subject and talk to lots of people at the same time via video conferences. Of course, we could send letters and look up information before the Internet was around, but now we can do these things in a fraction of the time. This means that information about anything that we need to know is much more freely available and that it can be passed on much quicker.

TASK 1

If you are connected to the Internet either at school or at home see if you can find out about insects by using the search tool on your internet browser. You should be able to find that there are a lot of web sites devoted to insects (or 'entomology').

TASK 2

See if you can answer these questions by looking on the Internet:

Do insects have ears?
What's the fastest bug in the world?
What is the most dangerous insect in the world?
What is the largest insect in the world?
What is an insect?

Maybe you could compile an insect fact file and e-mail it to your friends.
From Aesop to Disney

The filmmakers who created 'A Bug's life' got their inspiration from a story called 'The Ants and the Grasshopper' written by a man called Aesop over 2,000 years ago.

Aesop was a slave in Ancient Greece who wrote lots of stories about insects and animals and the stories usually end with a moral.

Read the fable below and then write down in no more than fifty words what you think the moral of the story is?

THE ANTS AND THE GRASSHOPPER

On a cold, frosty day the ants began dragging out some of the grain they had stored during the summer and began drying it. A grasshopper, half-dead with hunger, came by and asked the ants for a morsel to save his life.

"What did you do this past summer?" responded the ants.

"Oh," said the grasshopper, "I kept myself busy by singing all day long and all night, too."

"Well then," remarked the ants, as they laughed and shut their storehouse, "since you kept yourself busy by singing all summer, you can do the same by dancing all winter."

Idleness brings want.


The moral of the story is...
From Aesop to Disney

TASK 2

Aesop wrote lots of fables about different animals. Perhaps the most famous one is 'The Hare and the Tortoise' which tells the story of the two animals entering a race against each other. His stories are so well known that some children learn them before they can read. How many of you know the story of the boy who cried wolf? That was also one of Aesop's fables.

Using your school library or the Internet, make a list of as many Aesop fables as you can find. Put them into alphabetical order and list them, like a bibliography. Once you have finished, make a neat copy of your work and decorate it with drawings of the animals in the titles.

TASK 3

Read Aesop's fable of 'The Ants and the Grasshopper' again. Now read the synopsis of the film 'A Bug's Life' below.

The movie is loosely based on Aesop's famous fable, 'The Ants and the Grasshopper'. Our hero, Flik's ant colony is under attack and he takes on a dangerous mission to Bug City to enlist the support of tougher bugs to help. Inadvertently he gets a troupe of unemployed circus performers and the fate of Ant Island rests in their hands.

From what you have read, what are the differences between Aesop's original story and the film version? Why do you think changes were made? List your ideas in the box below.
Insect investigation

What sort of insects live in your school playground or back garden? Do some insects live there all the time or do some just visit? Do different insects live in different places?

The following investigation will give you the chance to compare a local insect habitat with the Bug City in the film.

In 'A Bug's Life' the insects live on 'Ant Island' (woodland) and in 'Bug City' (on a rubbish tip). Find out where the following insects live and draw them in their habitats.

- Ant
- Rhino Beetle
- Spider
- Flea
- Caterpillar
- Ladybird
- Stick Insects
- Maggots
- Butterflies
- Woodlice
- Fly

**TASK 1**

In the film 'A Bug's Life' the insects listed below were at Bug City (an insect city made entirely out of rubbish). Which ones do you think lived there and which ones do you think were visitors? To find out about this look for information about insect habitats on the Internet. Sort them into two groups: inhabitants and visitors.

**TASK 2**

Find out about the other places that insects live in, for instance, some insects live in ponds, others live under rocks. Choose two of them as the background locations for 'A Bug's Life 2' (the sequel!). Paying close attention to how the backgrounds are drawn in the first film draw the two location backdrops that you have chosen. Make sure they are very detailed and colourful and that they are from the insects' point of view.
Glossary

Animation: a type of film traditionally created by taking a series of photographs of drawings, cut outs or puppets
Animators: artists who make animated films
background locations: a real place that can be seen behind the action of a film
bibliography: a list of books on the same subject or by the same author
CGI: Computer Generated Images
colony: a group of animals or insects that live close together
communicate: to send information
communicating: sending information
conceals: hides
enlist: to sign up for something
entomology: the study of insects
epic: a long story or poem about a hero or heroine
equivalent: the same thing
estimate: guess
exterior: the outside
fable(s): a story with a moral (often about animals)
forefront: in the lead
frame: a single drawing from an animated film
habitats: homes or places where things live
improvised: made up
inhabitants: someone or something who lives somewhere
inspiration: something that gives you a good idea
intellect: cleverness
intellectual: someone who is clever
interior: the inside
location backdrops: painted scenery that is seen behind the action in a film
misguided: led astray, mistaken in some way
moral: something which describes good or bad behaviour
morsel: a small piece (usually of food)
network: lots of computers connected together
original: the first one
performance: play or show
pompous: someone who thinks they are more important than others
resourceful: good at finding things out
sequence: the order in which things happen
slave: someone who is owned and has to work for someone else
superior: more important
synopsis: a short description of a story
technological: to do with machines and science
technology: the study of machines and science
three-dimensional: something that comes out at you, rather than being like a drawing on a page
tolerance: putting up with something
## Curriculum guide

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