Introduction:

The Department of Health currently has available, for healthcare architects, planners and policy makers, a web-based tool which can be used to evaluate a range of existing and planned-for healthcare spaces. The tool is called ASPECT which stands for ‘A Staff and Patient Environment Calibration Tool’. The tool reflects a wide research base which has addressed the impact of the healthcare environment upon patient satisfaction health outcomes and staff performance.

The Space to Care research team recommends the re-interpretation of, and additions to, the original 8 headings in order to reflect the perspectives of child-patients who use hospital environments. This adapted version of ASPECT provides a means for evaluating existing hospital buildings for children and young people.

ACE or ‘ASPECT: CHILDREN’S ENVIRONMENTS’ has 10 sections in its toolkit instead of the original 8, but it can be used in exactly the same way as the original ASPECT. The original, with all description and guidelines for use, can be viewed at:

http://design.dh.gov.uk/content/connections/aspect.asp

ACE, which forms the body of this leaflet, applies to all hospital spaces used by children and young people (outpatient and inpatient) unless specifically stated.
How to use ACE [Aspect: Children’s Environments]

The 10 sections relate to characteristics of the hospital environment which the Space to Care project found to be important to children. The lighter colour boxes, within the list, illustrate that outdoor environments and views of nature were not particularly significant to children.

Each page of the main body of this document provides an explanation of each for the 10 sections. Explanations are followed by evidence, from the Space to Care research project, both in terms of general findings and verbatim examples from children and young people.

At the bottom of each page, for each section, there are scoring statements which enable you to evaluate how well a particular healthcare space caters for children and young people. The original ASPECT uses a 6-point scoring scale and we suggest using the same:

Virtually complete agreement (6)
Strong agreement (5)
Fair agreement (4)
Little agreement (3)
Hardly any agreement (2)
Virtually no agreement (1)

We hope you find this a genuinely useful starting point for evaluating and reflecting upon how well healthcare spaces cater for the needs of children and young people.

Findings from Space to Care research can be found at:

http://www.cscy.group.shef.ac.uk/research/spacetocare.htm
### ASPECT

**Privacy, company and dignity**
Controlling privacy and interaction with others. Maintaining dignity in unusual circumstances.

**Views**
Extent to which staff and patients can see out of and around the building.

**Nature and outdoors**
Extent to which patients have contact with the natural world.

**Comfort and control**
Comfort level of staff and patients, controllability of comfort.

**Legibility of place**
How understandable are buildings to staff, patients and visitors?

**Interior appearance**
What do they look like? A subjective view.

**Facilities**
Number of facilities found to be of importance to patients in particular.

**Staff**
Aspect of building provisions that relate specifically to staff.

### ACE

#### ASPECT:
**Children’s Environments**

**Age-related**
Ensuring hospital environments are appropriate for children and young people of different ages.

**Social space**
Ensuring that all children are able to access spaces in which they can socialise when they want to.

**Privacy and personal space**
Ensuring inpatient-children, of all ages, have access to private space when they choose.

**Views**
Extent to which children can see out of and around the building.

**Nature and outdoors**
Extent to which children have contact with the natural world.

**Comfort and control**
Ensuring that comfort levels of children and young people are appropriate and controllable.

**Legibility of place**
How understandable are buildings to children and visitors?

**Interior appearance**
What do children and young people like and dislike about hospital interiors?

**Facilities & activities**
Ensuring that recreational spaces and other facilities meet the needs of children and young people and their visitors.

**Staff, parents and visitors**
Ensuring that aspects of building provisions relate to social interactions between children and staff.
The examples that follow show how the 10 ACE sections (including guidance, evidence and scoring statements) focus upon children’s perspectives of hospital environments.

Age-related

Ensuring hospital environments are appropriate for children and young people of different ages

Finding: Children and young people experience hospital space as having age related characteristics. The hospital space is geared towards very young children.

Explanation: Children over the age of 7 disliked sharing space with babies. They also considered that the decoration and the recreational opportunities provided were aimed at very young children.

Examples from children:

‘That one’s a kids room so I don’t go in’ (13 year old boy)
‘I don’t like those curtain things with clowns and balloons. I think it’s a bit babyish’ (9 year old male)
‘I don’t like those things hanging from the ceiling. They are just drawn and they don’t brighten up the room…it’s a bit kiddy’ (13 year old boy)
‘Rooms looks babyish because of horses, yellow colour, play mats. The adolescent room looks like it’s for kids age 11’ (11 year old boy)
‘That one’s a kids’ room, so I don’t go in’ (13 year old girl)
‘teenagers wouldn’t really have pictures on the windows’ (12 year old boy)
‘It’s the clown border…I hated it, hated it…too childish. I don’t want childish borders’ (15 year old boy)
‘all the toys and stuff…there was not much for my age to do. It was nice for young kids’ (14 year old boy)
‘Most toys are for babies. There’s nothing to do for us bigger ones’ (9 year old boy)
‘If I were a creator in this hospital, I would have put a wall in between for the teenage side and the baby side’ (9 year old female)
‘I don’t like the baby toys. I don’t like playing on them’ (6 year old boy)
‘it’s too like kiddified, it’s just full of toys and little kids’ stuff’ (14 year old girl)
[The playroom is] for people quite young – for seven and lower’ (10 year old girl)

Scoring statements:

a. Babies are separate from children and young people
b. Decoration is not aimed solely at very young children
c. Space is flexible enough to enable same-age children to be together
Social space

Ensuring that all children are able to access spaces in which they can socialise when they want to.

Finding: children experience hospital spaces as social spaces and not just as clinical spaces.
Explanation: Even when children are in cubicles, when their medical condition permits, they value the opportunity to socialise with other children. Children and young people want a large enough social space that is open, available, not locked or overly policed. They also want to be able to use their mobile phones/internet/telephone to keep in contact with family and friends.

Examples from children:

'I like being on the ward better because I make, I can actually make friends' (7 year old boy)
'In here [in the cubicle] it's like I can do what I want when I want but there's no other kids to talk to. If you want to go and talk to someone then you have to move' (14 year old girl)
'On the bay, you get to talk to people' (10 year old male)
'It's really tiny [the adolescent room]...if they bring another teenager in there, you don't feel like you want to be in there because it's like their space' (16 year old girl)
'There's always other children and I can make friends' (14 year old girl)
'Because there's more beds and if there's people their age you can get to talk and make friends I suppose while you're in hospital' (13 year old boy)
'it's boring because there's no-one there to play with you’ (9 year old girl)
'so I can email my friends and speak to everyone who can't make it' (16 year old boy)
'that's another best part, being able to have mobile phones in here' (14 year old girl)
[the best thing about the ward] 'just the fact that my mum can stay with me, so that I've got someone with me and don't get scared that much' (12 year old girl)
'it would be nice if they [parents] could have their tea with you' (10 year old boy)
'it's expensive because each time you're chucking 30p in the phone for about ten seconds where on your mobile it's maybe for about a minute' (14 year old girl)
'just somewhere to go and talk to other people. You just feel like you're sat on your bed all day because there's nowhere for you to go really. ’(16 year old girl)

Scoring statements:
- There is sufficient space for children to meet together
- Children and young people can choose whether and when they socialise with each other, medical condition permitting
- Children and young people have freedom to access social space
- Children and young people, who are in hospital for a day or longer, have space to be alone with their families
- Children and young people have easy access to the internet/mobile phones/telephones
Privacy and personal space

Ensuring inpatient-children, of all ages, have access to private space when they choose.

Finding: All children value personal space and privacy and wish to choose when to have it.
Explanation: Children like to personalise space with objects and decorations. Children wish to have the opportunity to sometimes be on their own and be private.

Examples from children:

You can just close the curtains and be having a space on your own’ (10 year old girl)

‘[in a cubicle]...you can put your own stuff up’ (15 year old boy)

‘when you are in for a long time, you need a lot of space but the nurses kept saying take it home because we can’t get round you bed, you’ve got too much stuff. But if you are living in hospital, you need your stuff don’t you’ (16 year old girl)

‘you can draw those curtains around if you need a wee’ (5 year old boy)

‘[I’d like] a really quiet place so you can call someone on your mobile phone’ (11 year old girl)

[it’s a space where] ‘you can tell the doctor serious problems that you’ve got, that you don’t like to tell the ward’ (16 year old girl)

Scoring statements:
a. Children and young people can choose to have visual and physical privacy
b. Children and young people can choose to be alone
c. Children and young people can personalise their space

This girl’s ward design would enable children to personalise their bed areas with ‘My name is….’ signs which display children’s first names
Views
Extent to which children can see out of and around the building
Finding: children and young people rarely commented on either the lack or availability of views.

Nature and outdoors
Extent to which children have contact with the natural world
Finding: children and young people rarely expressed a desire to access either nature or the outdoors.
Explanation: short stay children and children in outpatients’ did not express any preferences. In inpatients, a few older children used outdoor spaces as alternatives to the bed space. ‘Fresh air’ was valued.

Examples from children:
‘there’s outside, there’s not many play toys, there’s only like skipping and baby stuff’ (9 year old girl)
‘I’d like more chance to go for a little walk outside or something…I’d just like a bit of fresh air. There’s only a play area out there, there’s nowhere else you can go…stretch your legs or something’ (13 year old boy).

Scoring statements:
a. Outdoor spaces are suitable for children and young people of all ages
Comfort and control

Ensuring that comfort levels of children and young people are appropriate and controllable

Finding: Children dislike dull, dirty, disordered and crowded spaces and they like clean, tidy, bright and comfortable spaces that are well maintained.

Explanation: Issues of comfort and control are not limited to matters of lighting, temperature, ventilation, smell, noise but also include tidiness and state of repair.

Examples from children:

**Comfort:**

‘The treatment room smells. But that’s because of all the stuff. It has to be clean and that. Clean stuff! [laughs] have a sensitive nose. (14 year old girl)
‘The bins are overflowing’ (16 year old girl)
‘There’s the mess, I don’t like it’ (6 year old girl)
‘It looks a tip in the toilets’ (11 year old boy)
‘The bathroom is old and dampy’ (12 year old boy)
‘It’s got cracks. This hospital’s gone down hill’ (14 year old girl)
‘It’s messy, I wouldn’t like to sit down on that bed’ (12 year old boy)
‘It’s packed in, the things just are packed’ (14 year old boy)

‘[noise from]…crying babies when I am trying to get to sleep’ (12 year old boy)
‘Too warm, should have a cooling system in… because when you’re trying to get to sleep on a night you feel dozy and you feel sick a bit ’(12 year old male)
‘It looks comfortable…chairs look really comfortable’ (11 year old boy)
‘I don’t like sitting on little seats. At school I sometimes have to swap with this older girl for a little seat and it makes me feel little’ (10 year old girl)
‘they could install comfier chairs, like fold down chairs with a lever, like on Friends, yeah a Lazy boy’ (10 year old boy)
‘leather reclinable chairs…more comfy so you can relax’ (14 year old boy)
‘They clean every day’ (14 year old girl)
‘It looks uncluttered, clean and nice’ (14 year old girl)
‘It just feels happier if it’s lighter’ (15 year old)
Comfort and Control:

Control

‘They keep the lights on all day, nights and day because people come in and the light shines onto the bed. I can’t get to sleep’ (9 year old girl)
‘And the light at the top for the top of your bed…I can’t reach that. I can’t even reach that when I stand on this’ (16 year old girl).
‘I had bad legs and I couldn’t go on my tiptoes [to reach the light switch]’ (9 year old boy).
‘…should have fans above every bed, you know, fans on the wall. They are so like high in demand, you can never get them’ (16 year old girl).
‘if the baby’s keeping them awake all night then they can’t get any sleep’ (9 year old boy)
‘I’d build another ward…for babies to be in there. [They] make a lot of noise when you’re trying to get to sleep’ (11 year old girl).
‘in my bedroom at home I can fit teddies and boxes down the side of my bed’ (12 year old boy)
‘there’s not enough storage space in the cupboards’ (16 year old girl)

This bed space didn’t have much provision for storage but children appreciated having control over television, radio, telephone and Internet—all at the bedside

Scoring statements for comfort and control:
a. Children and young people can easily control artificial lighting
b. Children and young people can easily exclude sunlight and daylight
c. Children, young people and staff can easily control the temperature
d. Children, young people and staff can easily open windows and doors safely
e. Ward organisation separates babies from children and young people to minimise noise disturbance
f. Storage is sufficient for children’s and young people’s possessions.
g. Hospital spaces are tidy and free from clutter
h. Hospital spaces and equipment are well maintained
Legibility of place
How understandable are buildings to children and visitors?
Finding: Children and young people have few opportunities to way-find independently. This criterion is therefore not significant to them.

Interior appearance
What do children and young people like and dislike about hospital interiors?
Finding: Children of all ages like colourful, decorated spaces. They use familiarity with other environments to understand hospital spaces.

Explanation: Children of all ages like to see decorations and appreciate bright colours. They dislike green walls and do not appreciate white walls because they are seen as plain. Pink is seen as highly gendered. Blue is not seen as a boy's colour. Contemporary media references are liked and valued, but different aged children have different views. Clown motifs are not liked by children of all ages. Curtains are an important feature of the ward environment and their design must be appropriate for all ages. Modern spaces are appreciated by older young people.

Examples from children:
‘for teenagers you wouldn’t really have pictures on the windows’ (12 year old male)
‘they’re kind of creepy, the clowns’ (11 year old girl)
‘the clowns are scary on the way to theatre’ (14 year old boy)
’Sponge Bob and Square Pants I hate them. They’re good for children though’ (14 year old boy)
‘It’s got nice pictures, it makes you feel happier’ (10 year old girl)
‘Green, like baby diarrhoea’ (14 year old girl)
‘White, it’s a really dull colour’ (9 year old girl)
‘It’s pink, all pink!’ (7 year old boy)
‘all the decorations and colours are good for younger kids, so it feels like a nursery instead of a scary hospital’ (16 year old girl)
‘my bedroom’s all decorated. [If it wasn’t decorated in the ward] I’d feel like not very at home’ (10 year old girl)
‘It reminds me of a bit of my school’ (6 year old boy)
‘I don’t like the curtains. They are like an old grandma’s room’ (14 year old girl)
‘I don’t like the pictures on the curtains’ (7 year old boy)
[the bathroom] ‘looks dead modern and big’ (15 year old girl)

Scoring statements:
a. The walls, ceilings and floors are colourful and decorated
b. The curtains and furniture are suitable for children and young people of all ages
c. References to media culture can be changed to respond to children’s and young people’s interests and different ages
d. Traditional icons of childhood (e.g. balloons and teddies) are minimised in spaces used by a variety of ages of children and young people
e. The space does not look and feel old fashioned
Facilities and activities

Ensuring that recreational spaces and other facilities meet the needs of children and young people and their visitors

Finding: Children want age-appropriate recreational facilities and spaces to be readily available and independently accessible.

Explanation: Children and young people like to have a range of activities available. These need to meet the needs of children of all ages. Well-maintained and up-to-date computers, games consoles, access to the internet, along with TV, DVDs, music systems, are especially important for children over 6 years old. Children and young people do not like being bored and so they value art and reading materials, toys and games, books and magazines. Children and young people want spaces, and equipment storage facilities, for recreation to be readily accessible to them throughout the day. Children and young people value spaces, other than the bed-side, where they can be with their visitors. They are concerned about the quality of the facilities available for their visitors (daytime and overnight).

Examples from children:

Computers:
‘computers, some lap tops, next to every bed… with the internet… and have phones as well next to every bed’ (16 year old boy)
‘I’d rather have a few PS2s and a few more Xboxes because all there is a drawer full of PlayStation 1s, and 1 Xbox and 1 computer and 1 pool table’ (9 year old girl)
‘I tried to go on the computer… it didn’t work very well. I don’t think it’s broken, but a bit temperamental’ (13 year old girl)

Television:
‘because if you didn’t have a TV you’d be so bored’ (10 year old boy)
‘Watching telly, you can rest’ (6 year old girl)
‘Have a couple more TVs over the beds so everyone can see. I can switch it on but other people might want to watch it’ (16 year old boy)
‘I like watching the television because there are lots of films you can watch like Star Wars and Barbie’ (6 year old girl)

Music:
‘I tend to just listen to my iPod. They ask me if I want to draw and things but I’m too old for drawing’ (16 year old girl)
‘very old stuff… CDs like they’ve gone: “They can have this!”. But we don’t want this’ (16 year old girl)

Reading:
‘could do with more books. I’ve read a comic, read a newspaper and that’s about it’ (15 year old boy)
‘it’s all just like for babies and that. All there is for our age is talking, watching TV and reading books’ (9 year old girl)
Facilities and activities continued.

Facilities for all ages:
‘I’d like more games for older people because there’s toys just for younger people an for older people it just gets a bit boring’ (15 year old boy)

Freedom of access to facilities:
‘I’m not right happy about the playroom though because we’ve got to be supervised by an adult’ (9 year old male)
‘I got kicked out of the adolescent room because it closes at 10’ (15 year old boy)
‘You just go: “Can I have the key for the adolescent room?” But they don’t give it to you. They go and do it for you’ (12 year old girl)

Facilities for visitors:
‘[visitors] should have their own place so that they can relax…..should like have bedrooms for visiting people’ (15 year old male)
‘families, they can sit on chairs, but otherwise they have to sit on the bed and things’ (11 year old girl)
‘there’s no chairs [for your family], there’s no,no,no chairs! You have to nick all the others from around’ (14 year old girl)

Scoring statements:
a. Age appropriate activities are available for all children and young people
b. Entertainment technology and media are up to date and working
c. Sufficient entertainment technology and media are available
d. Varied art and reading materials, games and music are available to suit all ages
e. Children and young people have freedom of access to recreational spaces and facilities
f. There is sufficient space and facilities available for visitors

This boy’s design for an inpatients’ space shows that he’d like a wide range of things to do near the bedside
Staff

Ensuring that aspects of building provisions relate to social interactions between children and staff

Finding: Although children and young people value their interactions with nursing staff and sometimes doctors, these interactions were not particularly dependent upon space.

Explanation: Children value friendly interactions with nurses especially. In outpatients children rarely interacted with staff. In the ward, children and young people sometimes complain about noise from staff spaces at night.

Examples from children:

‘Every nurse is nice. I’m going to be a nurse’ (7 year old girl).
‘If there is nowt to do you can talk to a nurse’ (9 year old boy)
It has a nurse and a mum…it’s a nice atmosphere (14m boy talking about why he likes the plaster room)
‘and I got woken up again by the nurses talking. At the nurse station they was really loud’ (14 year old boy)
‘At bedtime, I’ve always heard Beep, beep beep. It’s one of those speaky things on their shirts….bleepers….the doctors’ bleepers’ (6 year old boy).

Scoring statements;

a. There is a space where children and young people can see staff and interact, socially, with them when they choose.

b. Staff’s social spaces are effective working areas that do not intrude on children’s and young people’s quiet spaces

http://www.cscy.group.shef.ac.uk/research/spacetocare.htm