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In this article I want to look at now primary subject leaders can ensure that children experience art and design as creative and meaningful. One way is to consider the benefits of play in the early years and build on them in primary education and, as such, the examples I look at incorporate playful activities, taking on an imaginative cast through which participants are invited to imagine other worlds. Art and design activities provide enjoyable experiences in which children can immerse themselves. The relation between materials and ideas means that children have to use their imaginations to transform the raw material before them into something new.

The two examples here offer possibilities for this type of 'immersive learning'. The first integrates activities in a thematic, cross-curricular project (developed by the Institution of Education in collaboration with the Prince's Foundation, 2003), the other promoting painting as a performative event.

The island

The premise of the project is a shipwreck in which children are cast upon an island with four different micro-climates: a cold mountain, a swamp, arable land and a semi-tropical beach. This premise can be sustained as a developing narrative and possibly form the basis for parallel creative writing.

Using recycled materials (magazine paper, thread, cardboard) each islander has to build a shelter appropriate to their micro-climate and terrain. The builders should look at prototypes

The IOE's Nicholas Addison offers two imaginative routes you can take to deliver meaningful art and design into the classroom...

which draw on a global architectural heritage, whilst undertaking construction exercises exploring basic geometric shapes and their related volumes such as squares to cubes, Aframes to pyramids (applied mathematics). Once the basic skeletal frame has been constructed to scale (taking each builder's thumb as equivalent to a human) participants stop and evaluate their building in relation to two fundamental criteria: 1) is it robust? 2) does it protect inhabitants against weather conditions?

After revisions, each builder works out how to provide a skin – taking into consideration simulations of available, natural materials – before constructing extensions, providing accessories and considering decorative schemes. Here criteria for assessment are more subjective, depending partly on aesthetic judgements of taste: but the criteria 'home' takes over from that of 'shelter'.

Next, neighbours from the same micro-climate work together. This involves participants

The relation between materials and ideas means that children must use their imaginations to transform the raw material before them into something new discussing and listing available resources (flora, fauna, fresh water, etc.) discussing their credibility, i.e. what do you find in swamps and how might these resources sustain human life? This discursive and written and/or drawn activity develops notions of community; immediate neighbours think about pooling resources whilst identifying what's missing. As micro-groups they negotiate an exchange of resources with their neighbours, e.g. the mountain people with the swamp people and vice versa. This discussion continues until such time that the island's resources are mapped, stored and exchanged. Sometimes this leads to protectionism, at other times altruism, negotiations invariably touching on ethical issues.

Now the islands themselves are built: using boxes, potted plants, paper and fabric, etc. Participants place their constructions within the island and consider how to connect the various communities, the infrastructure of roads, canals, walkways, transport. The narrative is extended: the inhabitants are unlikely to be rescued and must imagine the implications of permanent settlement. Considerations move from community building to society as the islanders (it's good to have at least two islands) discuss what institutions and resources underpin social life. Considerations of health, It's essential that art and design coordinators find ways to either provide ongoing professional development in the form of workshops or seek INSET from other institutions

education, entertainment, governance, trade, economic systems all lead to further building as schools, hospitals and so on are added to the infrastructure. Because of time and space at this stage it may be necessary to move from the model itself to processes of mapping and story telling/writing. I've known teachers to initiate role-play where representatives from one island meet with those from another to negotiate trans-island needs. This enables children to select representatives and share their views, a lesson in citizenship.

This project is the basis for a series of crosscurricular activities in which different skills contribute meaningfully to the whole. Participants are designing for purpose, applying creative ways to respond to environmental needs (albeit in simulated form) and developing social skills.

Bacterial brushwork

The second project is based on painting. It takes on a collaborative, shared and performed profile, one that questions the way in which painting and drawing are often perceived as activities only for individual self-expression.

Divide the class into four groups of 4–5 students, providing each group with a whitewashed sheet of cardboard about 5x3ft. Each group produces a painting depicting a world of bacteria. (I choose bacteria because few people know exactly what they look like and are therefore less inhibited by fears that they cannot draw.)

Provide printouts of images of bacteria sourced from the web. Micro-photographs of bacteria can be gorgeously coloured, and their forms have great variety. I group these images into formal types: spiky and aggressive, clustering, isolationist and those that split and multiply. Each group is given a specific type for reference. On paper participants then practise technical skills, exploring what happens when wet paint is put into wet paint, what happens when thick paint is dragged or sponged, etc. These exercises provide painters with a repertoire of forms which they can then apply to their larger board.

Once each group has painted its own bacterial world, two groups are asked to place their paintings side-by-side. Now the performative element begins. One of the groups is invited to paint into the other's world, behaving to type. Time has to be strictly limited (I stipulate 10 minutes and lay out further rules such as 'no rushing' and 'don't destroy the completed forms of a neighbour'). Then positions are reversed so the other group work into the former's world, and so on. Once time is up the four panels are joined and presented. Together they create a mural-sized painting.

These instances are two of many in which children are encouraged to draw on a legacy of play while simultaneously applying valued skills for purposeful activity: practical, discursive, communicative. These activities are also concerned to extend the life worlds of children to engage them in imaginative activity that leads to an understanding of significant contexts. They enable children to work individually and in groups, and to understand how assessment can be based on objective rather then solely subjective criteria within art and design. As such they offer up possibilities for sustaining enjoyable forms of embodied learning within a curriculum that tends to marginalise art and design activity as recreational or subsidiary.

An efficient way to encourage non-specialist teachers to understand the benefits of teaching in this way is for them to undergo the activities themselves rather then read about them. It's therefore essential that art and design coordinators find ways to either provide ongoing professional development in the form of workshops or seek INSET from other institutions. In this way the significance of playful activity can not only be recognised but adopted for creative ends.

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