

## Summary of week by week

### Evening 1 – Fire and Water

**Introduce 'Foot prints'** using colour coded paper feet getting families to write down the worst to least environmental impacts. Red, worst then orange, medium and green neutral.

**Ice cube experiment** – where families design, make and test their ideas about the best way to insulate their home. Materials such as cotton wool and tin foil are available and ideas such as convection, radiation and reflection can be explored.

**Hook a fish game** – where families take it in turns to think about fishing from the fisherman's side and also from the fish's point of view. Families are encouraged to design ways in which the fish can disguise themselves and ways in which the fisherman can hook more fish. A specific amount of weights must be used by both fish and fishermen.

**House hold water audit** sheet explained and handed out.

### Evening 2 – Wind

**Re-cap 'Foot prints'** using results from household audit families are invited to feedback to the rest of their group by writing down how much water and electricity they used over the space of a one week. Each family is to write down their own usage which is then stuck on a giant sized paper foot which the total amounts of energy and water used by the whole group can be written.

**Hover craft kit building** – YPO hovercraft kits can be built by families using the cutting, drilling and gluing stations set up beforehand.

**Hover craft kit testing** – where families take it in turns to think about fishing from the fisherman's side and also from the fish's point of view. Families are encouraged to design ways in which the fish can disguise themselves and ways in which the fisherman can hook more fish. A specific amount of weights must be used by both fish and fishermen.

**House hold water audit sheet 2** explained and handed out. This week's audit is all about families trying to reduce the amount of water and energy that they use.

**Creative Art project** – Ask families to bring in rubbish and items to use in next week's project to build a large piece of artwork out of rubbish.

### Evening 3 – Earth

**Re-cap 'Foot prints'** using results from household audit families are invited to feedback to the rest of their group by writing down how much water and electricity they used over the second week. Each family is to write down their own second week's usage and calculate their savings. This amount can then be written onto cardboard stars and stuck on top of last week's giant feet. Certificates can then be written out and awarded to family groups at the end of the night.

**Families to decide on an object to build** – some examples could include a gnome with a fishing rod, a house, a wobble or wind mill.

**Creative art** – families use rubbish they've brought in as well as any craft materials available from DT or Science department and decide whether to build one huge work of art or four works of art in their groups.

**Plenary** – Hand out certificates of energy and water they have saved as families and congratulate them as a group. Hand out recycled gifts such as pencils that used to be cups and ask them to feed back using response sheets. Thanks for coming and feedback sheets.