

# 1999 Pack Holiday – Camp Notes

Theme: “Time Travellers”

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# Craft Ideas

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## Romans

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## Equipment

### Common Equipment

The following will be considered common equipment. They will assumed to be available to everyone at all times. Only specific equipment will be noted in the requirements below:

Card, Thick Card, Cardboard, Paper, Pens, Pencils, Rulers, Rubbers, Compasses, Glue, Scissors, Craft Knife, Paints, Paintbrushes, Sticky Tape

## Romans

**Amphora:** p58 Large sheet of thin card, corrugated cardboard, newspaper

**Anglo-Saxon Hall:** Invaders & Settlers p17  
Large plastic container, newspaper

**Aqueduct:** p16 There is a template available on cardboard for the pieces.

**Croma:** p60 pole, silver foil, string, large sewing needle, broom handle

**Crown:** Invaders & Settlers page 27 Gold Paint, paper clips

**Golden Headdress:** p28 string, plastic beads, gold foil wrappers, paper clip.

**Laurel Wreath:** p11 garden wire, pliers, bay or laurel leaves

**Mask:** p46 Clay (or use card instead), string, gardening wire, coloured beads.

**Mosaic:** See Mr. T. or p38 coloured card

**Roman Armour:** p56 Tape Measure, A1 size sheets of silver card, string.

**Roman House:** p18 Corrugated Cardboard. There is a template available on cardboard.

**Roman Standard:** Invaders & Settlers p11  
Garden cane, pot-plant stake, paper plate, red/purple cloth, gold paint

**Temple:** p50 Drinking straws, balloon, old newspaper.  
There is a template available on cardboard.

**Toga:** p26 Old white sheet, tape measure, ribbon, long white T-Shirt, Cord.

**Writing Tablets:** p30 brown paint, water pot, modelling clay, rolling pin, modelling tool, skewer

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## Prehistoric

**Cave Paintings:** p42

**Dyeing Cloth:** p38 natural dyes (walnuts, elderberries, safflower), saucepan, tablespoon,

sieve, bowl, white card, white T-shirt, wooden spoon.

**Needs to simmer for an hour & cool**

**Figurine:** p58 self-drying clay, modelling tool,

**Hand Art:** p16 water, spray bottles

**Hunters Home:** p18 clay, board, modelling tool, water pot, twigs, 'grass' or green cloth

**Model Axe:** p32 clay, modelling tool, thick dowelling, craft knife. Could use 'sticks' & real stone instead.

**Model Bow/Arrow:** p48 sticks/dowelling, string

**Model Canoe:** p46 Templates are available.

**Model Harpoon:** p24 dowelling/cane, craft knife, clay, modelling tool, strong string. Could use card instead of clay.

**Necklace:** p40 clay, modelling tool, leather laces.

**Passage Grave:** p54 'compose' or earth. Grass

**Wooden Henge:** p52 dowelling/sticks, 'fake' grass.

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## Tudors

**Calligraphy:** Calligraphy Book

**Design an Alphabet:** p30

**Embossing:** p36 Round-ended paintbrush, craft knife

**Illuminated Manuscript:** Invaders & Settlers p11  
Cold Tea, sponge, felt tips, gold felt tip.

**Stencils & Rubbings:** p34 Card, craft knife, tracing paper, crayon

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## 20<sup>th</sup> Century

**2 Stage Saturn Rocket:**

**Best Paper Aeroplane in the world:**

**Deltawing Jet:**

**Gliders:**

**Kites:**

**Space Shuttle:**

**Water Rocket:**

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**Ludus Latruncularum:** p48 Romans. This is just an ordinary 'Chess' board. Each player has 16 tiles and a bead.

**Merelles Board:** p48 Tudor Horrible Histories.

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## Vikings

**Brooch:** p28 Use card instead of clay? Safety pin, gold foil.

**Coin & Die:** p42 Self-drying clay, pin, bronze/silver paint.

**Drinking Horn:** p22 Thick paper, newspaper, brown paper, silver foil

**House:** p20 Templates are available

**Jewellery:** p50 Tape Measure, self-drying clay, string, modelling tool.

**Longship:** p36 Templates are available.

**Lucky Charm:** p14 Thick paper/card, string

**Model Axe:** Use paper/card/sticks. Flesh out axe using paper to make an axe head shape.

**Model Helmet:** p46 Balloon, tape measure

**Model Shield:** p48 newspaper, paper fasteners, silver foil, craft knife, stick

**Runestone:** p54 Use card instead

**Scary Face:** p52 Use card instead.

**Sledge:** p34 Paper fasteners, red string, fur fabric. Templates are available.

**Wind Vane:** p40 Gold paint. May need a little interpretation in terms of replacement materials

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## Board Games

**Hnefatafl Board:** p58 Vikings. Could use coloured paper instead of clay. Need 9 playing pieces, one of which is larger. King and 3 pieces black, other 5 white.

# Games

## Roman Games

**Ludus Latruncularum:** p48. Each player has 16 tiles of a certain colour and a bead. This is the *dux* or leader. Players take it in turns to put their tiles on any squares, two at a time. The *dux* is put on last. Players now take turns to move a tile one square forward, backward or sideways. If you sandwich your opponents tile between two of yours, it is captured and removed. You then get an extra go. The *dux* is captured in the same way as the tile. The *dux* can also jump over a tile to an empty square. If your opponent's tile is then trapped between your *dux* and one of your tiles, it is captured.

**Trigon:** p84 Horrible Histories. A 'pigs bladder' (balloon) is blown up and tied. Form a triangle with sides about 2 metres long on the ground. A player stands at each corner. The ball is passed from player to player without it touching the ground. If you drop a ball you lose a point. The winner is the one with the fewest drops in the time allotted.

**Knucklebones:** p85 Horrible Histories. 'Sheeps feet' (stones, dice or cubes) are used as 'chuck stones' Hold the bones in one hand. Throw them into the air. The aim is to see who can catch the most on the back of the hand.

**Micare:** p85 Horrible Histories. Play in pairs. Each player places their right hand behind their back. Agree on a signal – one player will nod for example. On the signal, both players shoot out the right hand with a number of fingers raised. At the same moment each player calls out what they guess the total number of fingers will be. If neither guesses correctly then try again. The winner is the first one to guess correctly.

**The Jar Game:** p86 Horrible Histories. Someone is selected to be 'it'. 'It' sits on the ground, they are 'in the jar'. The others try to prod or nip the one on the ground. The person in the jar cannot get up but they can try to grab hold of one of the touchers. The toucher who is grabbed goes into the jar.

**Blind Man's Buff:** p84 Horrible Histories. Someone is chosen to be blindfolded. The other players each have a stick and dance around tapping the blind man with the stick, shouting

"Come and catch me!", which the blindfolded person tries to do. If a player is caught then the blindfolded person tries to guess who s/he is holding. If the blindfolded person is right then the caught player becomes the blindfolded one.

**Nuts:** p86 Horrible Histories. Each player has a supply of nuts. Each player adds a nut to her/his pile to build a pyramid. The winner is the player who uses the most nuts before the pyramid collapses.

## Gladiator Games

**Kingy Bats:** p77 Horrible

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## Viking Games

**Kingy Bats:** p77 Horrible Histories. Make a 'shield' about 40cm across. Make a ball out of rags bound up with string (tennis ball). Stand in a circle and pass the rag ball. To make it a competition split into pairs. The winners are the pair who can keep the ball in the air longest without it hitting the ground

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## Tudor Games

**Stoolball:** p98 Horrible Histories. Pitch two posts about 4 metres apart. Use a bundle of rags for a ball and a stick as a bat. Rules as for cricket.

**Loggats:** p99 Horrible Histories. Plant a stick in the ground, a 'stake' Each player takes turns in throwing smaller sticks, 'loggats'. The player whose loggat finishes nearest the stake is the winner. You can invent your own scoring system.

**Merelles:** p100 Horrible Histories. You need a merelles board, 10 counters and two players. Each player takes turns to place a counter on a dot. The aim is place three counters in a row. If all the counters are on the board and there are no rows of three then the players can begin to move their counters. A player can only move to an open dot and only one space each turn.

## Games List

Swedish Longball  
Cricket  
Rounders  
Football  
Run-outs  
Scavenger Hunt

+ any others!

### Capture the Flag

The players are divided into two even teams. Boundaries for the game are set out in a large rectangle or square. A line is drawn through the middle of the playing zone to divide the two teams. Each team then choose where they want their flag and jail but they have to show the other team where they are and both teams have to agree on the placement of the flags and jails. Once this is done, each team goes to their own side of the playing field. When the game begins, the teams are free to go at the others flag. If a team member is caught on the other teams side, (To be caught you must be “tagged” by a player on the opposite side on his own territory), he will be sent to jail. This player must sit in jail until either the game ends or he is freed by a member of his own team. To be freed, you have to be touched by a “free” member of his own team. The freed player gets a free walk to his own side of the playing field. The person freeing the player is on his own, he may still be tagged and put in jail. To win the game you must capture the other teams flag and return it to your own side with out being captured

**Variations:** For a night game, use lanterns to mark the centre line, while two lanterns are used to show the approximate area of the team flags.

Flag guards must remain at least 5 metres from their flag. Flag must be completely exposed.

**Notes:** For small teams, instead of a jail, create a ‘Check Point Charlie’ at the centreline. Captured prisoners can then be exchanged

### Jail Break

Two players are designated ‘cops’, one a ‘jailor’ and the rest are ‘robbers’. A central location is designated as ‘jail’. All robbers are given some designated time to go and hide. Then the cops can go looking for the robbers. The jailor must stay and guard the jail. The cops catch a robber by one the methods below When a robber is caught, they are taken to jail by the cop. A ‘jail-break’ can occur if a player manages to step into the jail without being caught by the jailor and shout “Jail Break!”. At this point all the players in the jail are free. The jailor must give them a little time to get away

**Variations:** The robber may be tagged, hit with a light beam, pull a wool armband off, hit with waterpistol, person identified correctly, or combinations of these

**Notes:** The jail should be fairly out in the open and the boundaries definite.

### Take Off

**Equipment:** Various articles (same for each six), tin for each six, wool armbands.

Each six is given assortment of articles (the same for each six). A piece of wool is tied round each cubs arm. The ‘astronaut’ (one of the leaders) sits in the centre of the area, with a separate tin for each Six. The Cubs must try and deliver all the parts of the new space rocket, which is still on the secret list, without being spotted by other designers who are wanting to copy their ideas. The ‘other designers’ are the Assistants who roam about the area, and try to break the wool on the Cubs arms. If they are successful then the Cub can continue to the astronaut but must declare that the part he is carrying is faulty, and must correctly answer a general knowledge question before his part becomes useful again.

The first Six to get all parts into their tin are the winners.

### Ancient Britons

**Equipment:** Materials to construct a ‘fort’. Areas specified for Fort and for Rome.

The teams comprise a tribe of Ancient Britons and a Roman Legion. The Romans are trying to establish a fort in the area. They will need to build a fort from the available materials. The British will try to stop them by trying to steal the materials. However, if caught, the British tribesmen are conscripted into the Roman Army and have to help them. If a Roman is caught he is dispatched back to Rome and has to make the full return journey before participating again.

### Armada

**Equipment:** Two Teams – ‘Drakes Fleet’, ‘Spanish Fleet’, Cards with ships pictured on them.

Each fleet is given an area as their home port. Each cub is issued with one of the cards. They then attempt to engage the other fleet (by ‘tagging them’). Once caught the two opponents compare cards. The cards indicate who will win. The loser has to return back to port and be issued with a new ship by one of the leaders. The score is kept by the leader at each port (how many times someone returns). The fleet with the lowest score at the end of the game are victorious.

### **Protect the King**

**Equipment:** Four Teams – ‘Kings Guard, ‘Barons Men’, ‘Royalists’, ‘Highwaymen’

The King has to be escorted from one end of the Game area to the other by the Kings Guard. The Barons Men are trying to kidnap the King and hold him to ransom (they must not harm the King). The Royalists are aware of the kidnap plot (but not how it is to be carried out) and must foil it, without enlisting the direct assistance of the Kings Guard. Additionally, the Highwaymen have learned of the Kings journey, and are instructed to cause as much disruption along the way as possible, without directly blocking the journey.

The confusion and excitement is added to greatly if no team is aware of any other team’s mission or purpose!. Additional obstacles can be placed along the way, such as rope bridges to be crossed, battlefields to be negotiated etc.

### **Rockets & Interceptors**

**Equipment:** Bucket, Large number of Coloured Balls, Rope

This is played by two teams. The attacking team are called the rockets and the defending team are called the interceptors. The target area is marked off and the bucket or large tin is placed in the center. Only rockets are allowed to go inside the target area. Up to four interceptors are allowed to hover around the target area. The rockets have a base at which they pick up their warheads. Each rocket can carry only one warhead to the target area. If a rocket is tagged by an interceptor before going inside the target area, they must hand over their warhead and return to their base. 20 warhead units in the bucket or tin will destroy the interceptor target area. All the coloured balls count for 1 warhead unit. The five white balls are special multi warheads and count as 5 warhead units for each white ball. If the interceptor target area is not destroyed after 20 minutes then change over the teams so that everyone has a turn at attacking and defending

**Notes :** This game is best played where there is a bit of cover for hiding and creeping up on the target, or at night when visibility is reduced.

### **Viking Raiders**

**Equipment:** Raiding Counters

Divide the players into two teams. Have each team puts on its own armbands. One team becomes the Viking Raiders - the other the Saxons. After the rules of the game are given, each team retreats to separate ends of the playing area (3-20 acres with open woods is ideal for the game.)

The Vikings each receive the tiny pieces of paper, which they are going to try to carry into enemy (spy) headquarters. The Saxons set up their headquarters inside a 10’ by 10’ square area that has its definite boundaries. The scorekeeper sits inside Saxon headquarters. After each team has been given the opportunity to devise a strategy, play begins. The Saxons fan out away from their headquarters and try to intercept Vikings as they attempt to take their goods inside. When a Vikings gets caught (tagged), he must stand still and permit a one minute search of his person by the Saxon who caught him. If the Saxon cannot find the piece of paper within one minute (paper has to be hidden in external clothing layers), the Viking is free to try to advance again into the headquarters. If the Saxon does find the ‘loot’, he takes the piece of paper into Saxon headquarters and gives it to the scorekeeper, while the Viking returns to his headquarters to receive another piece of paper. If a Viking penetrates inside the Saxon headquarters, he gives his goods to the scorekeeper, and is escorted back to his own headquarters by a staff person or leader supervising the game. The game continues for a set period of time. When it ends, goods (points) are totalled, and a winner is declared

# Food

## Prehistoric

**Stewed Fruit:** p22 500g blueberries, 500g blackberries, 200g hazelnuts, honeycomb. Pour the blueberries into the pan, then pour in the blackberries. Stir with a wooden spoon gently without crushing the fruit. Shake in the whole hazelnuts and carefully stir again until thoroughly mixed. Add six tablespoons of honey from the comb. Put the pan on a stove and bring it slowly to the boil. Simmer the fruit and nuts very gently for 20 minutes. Leave to cool.

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## Roman

**Sweet Wine Cakes:** p27 Invaders & Settlers. 450g self-raising flour, 15ml grape juice, pinch of aniseed, pinch of cumin, 50g lard, 25g grated cheese, 1 beaten egg, 12 bay leaves. Heat the oven to 200°C (gas mark 6). Moisten the flour with the grape juice and add the aniseed and the cumin. Rub in the lard and grated cheese and bind the mixture with the egg. Shape the mixture into twelve small cakes and place each cake on a bay leaf. Bake for 25-30 minutes.

**Honeyed Dates:** p24. Walnuts, pecan nuts, almonds, hazelnuts, pestle & mortar, salt, 175ml honey, few fresh mint leaves. Slit open the dates and remove the stone, don't cut them in half though. Put aside the hazelnuts and chop the rest of the nuts. Use a pestle & mortar to grind them into smaller pieces. Stuff a small amount into the middle of each date. Pour some salt onto the chopping board and lightly roll each date in it. Make sure the dates are coated all over, but do not use too much salt. On a low heat, melt the honey in the frying pan. Lightly fry the dates for five minutes, turning them with a wooden spoon. Take care while using the stove. Arrange the stuffed dates in a shallow dish. Sprinkle over the whole hazelnuts, some chopped nuts and a few leaves of fresh mint.

**Spiced Wine:** p99 Horrible Histories. 1 litre grape juice, 3 tbspn honey, mixed spice, cinnamon, nutmeg, black pepper, water. Pour grape juice into a 2 litre serving jug, add a litre of water. Stir in the honey until it dissolves. Add a

pinch of mixed spice, one of nutmeg, cinnamon and black pepper.

**Numidian Chicken:** p100 Horrible Histories.

Chicken pieces, cumin powder (quarter teaspoon), coriander seeds (quarter teaspoon), 4 dates (chopped), 2 tbspn honey, 2tbspn wine vinegar, chicken stock (1 cube crumbled in a cup of water), pinch of pepper, 1 tbspn cooking oil, bread crumbs. Put the chicken pieces in a roasting dish and brush them with cooking oil, sprinkle them with pepper and cover the dish with cooking foil. Roast the pieces at 350°F, 180°C or Gas Mark 4 for half an hour. While the chicken is roasting, put the other ingredients into a pan and simmer for twenty minutes to make numidian sauce. When the chicken pieces are ready, put them on a serving dish and pour over the sauce. Serve the chicken with vegetables, cabbages and beans are very roman.

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## Vikings

**Viking Loaf:** p32. 2 cups white flour, 3 cups wholemeal flour, 1 teaspoon baking powder, 1 teaspoon salt, 2 cups warm water, 1 cup edible seeds, sieve, mixing bowl, teaspoon, wooden spoon, baking tray. Sift 2 cups of white flour and 1 cup of wholemeal flour through a sieve. Sprinkle 1 teaspoon of baking powder and 1 teaspoon of salt into the sifted flour. Stir half of the seeds into the bowl. Add 2 cups of warm water and stir well with a wooden spoon. Use your hands to knead the mixture into a stiff dough. When the dough is well kneaded and no longer sticky, place it on a greased baking tray. Sprinkle the rest of the seeds on top of the loaf. Put the baking tray in a cold oven. Turn the oven to 190°C (Gas mark 5) and cook the bread for 1 hour.



## Prehistoric Menu

### *Breakfast*

Insect Grubs with a variety of ants, grasshoppers, beetles and termites.  
Fungus

### *Lunch*

Birds Eggs with a choice of peas, beans, squashes and cucumbers  
Dates, Grapes, Figs, Blueberries, Cranberries.

### *Dinner*

*Starter* - Almonds, Pine nuts, Walnuts, Hazelnuts and acorns wrapped in a covering of Dandelion and nettle leaves.

*Main Course* - Crabs, Mussels, Whelks, Cockles, Razors, Lobsters and Oysters.

*Sweet* - Stewed Fruit

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## Roman Menu

### *Breakfast*

Bowl of Porridge, Crust of bread, Sour wine

*Or*

Bread, honey and olives

### *Prandium (Lunch)*

Eggs, cold meats, fruit

### *Cena (Dinner)*

*Gustatio* - Shellfish & Salad. Snails fattened in milk.

*Primae Mensala* - Roast Meat (choice of Pork, veal, chicken or goose) with vegetables. Dormice, Songbirds, Flamingoes' tongues.

*Secundae Mensae* - Fruit or honey cakes.  
Custard made from calves' brains and rose hips.

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## Viking Menu

### *Breakfast*

Gritty Bark Porridge  
& Viking Loaf

### *Lunch*

Baked Seal & Roast  
Horse

### *Dinner*

*Starter* - Seaweed

*Main Course* - Polar  
Bear Steak

*Sweet* - Stewed  
Seagull

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## Tudor Menu

### *Breakfast*

Eggs in mustard Sauce and  
Knotted Biscuits

### *Lunch*

Pigeon, Swan and Lark

### *Dinner*

*Starter* - Hen Soup

*Main Course* - 'Flock of  
Birds' Pie, Mutton, Veal,  
Pork & Pigs

Sweet - Jellies

# Mini-Market

The Time Travellers Market involves a few hours of 'role-playing'. The basic premise is that each six starts off with a set amount of credits. They will use these to buy materials, help, insurance etc. The idea is to construct items and sell them to the trader to make a profit. The six with the most credits at the end of the game is the winner.

The market consists of 6 main stalls:

**Time Travellers Traders** This is where they bring their completed items to sell for a profit. The Trader must make sure that the items are of a high quality. If the cubs are simply knocking up any old junk and making money the game becomes pointless. They must have an incentive to spend time and effort on their items, and then to sell them for a high return. Be strict. Stick to the price guidelines and only offer good money for items that took a long time to complete.

**Time Travellers Resource Store** This is where they will buy all their raw materials. They can barter with the trader to get a good deal. Ask an appropriate price. Common items will be cheap, rare or unique materials must go at a premium. Again, be strict. If they do not have enough money, tough! That is the job of the Market Inspector, the Bank and the Information Centre to sort out.

**Time Travellers Art & Craft Display** This is where completed items, and ready made items by the leaders will be on display to give the cubs an idea of what to make. Books can also go on display here, although the cubs will have to go to the information centre to take books out on a loan. This is strictly "Look but don't touch"

**Time Travellers Banking & Insurance** This is where the cubs can change up their credits. If they are in financial difficulties, they can also get a loan, although this will cost them extra in the end. They may also purchase insurance here against mishaps. They may also ask for financial advice.

**Information Centre** This is where most of the information will be displayed. Special offers, upcoming deals, upcoming events will be posted here. They can ask here for advice on any topic. The Information Centre also offers loans of books (for a price!) and other services

**If they are unclear about anything, they must ask here**

**Market Inspector** The Market Inspector will ensure the market is running smoothly. The inspector can fine a team for making too much mess, not behaving correctly or cheating. The inspector also deals with any complaints.

The 'credits' used as currency are the various sized cardboard discs. Leaders may take on one of the above jobs (as long as they wear the appropriate badge) or may hire themselves out as workers. Workers will join a team and help for an agreed period of time for a price. The cubs and leaders have to haggle and agree a price. Be Strict! Charge a reasonable amount for your help otherwise it will be unfair to the other teams. Do not do all the work for them. Encourage them to work as a team.

The members of the six can only visit the Trader, the Resource Store, the Bank and the Art & Craft display if they wear the appropriate badge (e.g. only the researcher can visit the Art & Craft Display, only the Banker can visit the Bank). Workers should be sitting at the table most of the time. Any member may visit the Information Centre or the Market Inspector. The inspector will fine people who are not wearing the correct badge.

Periodically offer special offers and deals at the information centre. Vary the prices slightly according to supply & demand. Encourage the teams to go for the harder to construct, but more profitable items. Discourage making small silly items. Keep the Cubs on their Toes!

At the end of the allotted time, add up the credits for each team. Factor in bonuses for good behavior, tidiness, quietness etc. Each placed team should receive an appropriate prize.

# Astronomy

## Resource Sheets

**Resources:** Each cub should have the following:

Polaris Locator	Single Sheet A4
Stars Visible at the four seasons	Single Sheet A4
Spot the Pattern	2 Sheets A4
Phases of the Moon – ‘Flip Book’	Single Sheet A4
Total Solar Eclipse – ‘Flip Book’	Single Sheet A4
The Moon – ‘Flip Book’	Single Sheet A4
Finding the Plough – ‘Dipper Finder’	Single Sheet A4
Make Your Own Sundial	Single Sheet A4

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## Activities & Crafts

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Make a Solar System  
Make your own Sundial  
Observing the Sun  
Solar System – Scale Model  
Spot the Pattern  
Star Frame  
The Pull of Gravity

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### Star Frame

**Source:** Royal Greenwich Observatory – “Hands on Universe” educational pack. Page 1d. Activity 1.3

**Equipment:** A wire coat hanger, some clear plastic, Tippex or white paint

**Method:** Pull the coat hanger into a square and bend the hook into a little handle. Using sticky tape put some clear plastic over the frame. Lay the plastic over the diagram of the Plough and carefully mark the positions of the stars. On the next clear night look to the north and by moving the frame around in front of your eyes line up the stars with the pattern.

Now you will always be able to find the Plough in the sky.

**Notes:** The ‘template’ for the stars is in the pack.

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### Solar System – Scale Model

**Source:** Royal Greenwich Observatory – “Hands on Universe” educational pack. Page 3c. Activity 3.1

**Equipment:** Objects in size from 1mm to 30mm and a football. Use blu-tak or similar. Large area!

**Method:** Form a scale model of the Solar System.

**Notes:** Relative distances and planet sizes are on the sheet.

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### Constellations – Star Cards

**Source:** Da Mert Company – A3 Double-Sided photocopied sheet

**Equipment:** Scissors

**Method:** Simply cut out the star cards.

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### ‘Flip Books’

**Source:** Various – There are 3 flip books, Total Solar Eclipse, Phases of the Moon, The Moon.

**Equipment:** Scissors, Stapler

**Method:** Simple cut out all the pages and staple in the top corner to make a flip book.

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### ‘Spot the Pattern’

**Source:** 2 Sheets A4

**Equipment:** Pencil

**Method:** All explanations on sheet itself.

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## Finding the Plough

**Source:** Single Sheet A4.

**Equipment:** Scissors, Paper Fastener

**Method:** All explanations on sheet itself.

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**Equipment:** Compass, pencil, cardboard, craft knife, thread, small weight, felt tip, glue, ruler, protractor, paper clip.

**Notes:** All explanations are in the book itself. **I suggest that a template is made beforehand.**

## Make your own Sundial

**Source:** Single Sheet A4

**Equipment:** Scissors, Card

**Notes:** All explanations on the sheet itself. I suggest that you actually use card to make the sundial, or at least the gnomon, otherwise it may not stand up very well.

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## Make a Solar System

**Source:** 'The Young Astronomer' Book, page 14

**Equipment:** Balloon, newspaper strips, flour & water paste, cotton wool, red/yellow tissue, tray lined with foil, plant spray, glue, balls/clay or blu-tak, card, compasses, paints/brushes, cocktail sticks, cardboard base.

**Notes:** All explanations are in the book itself. **The paste will have to be made up early.**

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## Lunar Eclipses

**Source:** 'The Young Astronomer' Book, page 20

**Equipment:** Ball or blu-tak/clay, baseboard, torch, support rods (sticks), glue, scissors.

**Notes:** All explanations are in the book itself.

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## Observing the Sun

**Source:** 'The Young Astronomer' Book, page 22 and page 23

**Equipment:** Ruler, compasses, binoculars, stiff card, large piece of white card, tracing paper

**Notes:** All explanations are in the book itself.

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## The Pull of Gravity

**Source:** 'The Young Astronomer' Book, page 24

**Equipment:** cardboard, thick cardboard, craft knife, ruler, pen, thread, four magnets, glue

**Notes:** All explanations are in the book itself.

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## Make a Quadrant

**Source:** 'The Young Astronomer' Book, page 26