Knowledge Organiser: Design Technology Year 6

Project Protection!

Curriculum Driver: Discovery and Success

Trips/Enrichment: Knife Crime Workshop

Cross-curricular subject links: Maths: measurement

GARP/GASP: How did Marie Curie contribute to the world of STEM?

Key Visuals Exploded diagram Nails were hammered The roof was glued into the edges of the and clamped until it pieces together. A drill with a round bi A drill with a smaller at the end was used ound bit made a hole cut out a round entr Research Evaluate Design

Core Knowledge

Woodwork skills include:

- Measuring wood
- Clamping wood
- Sawing wood
- Sanding wood
- Joining wood
- Making holes in wood



Hot glue gun







Hand drill

Desk clamp





But when you push on

a triangle, it

keeps its shape.



Hand saw

To ensure your bird house is fit for purpose, it should provide a safe place for birds to build their nests and keep them protected from the elements and predators. In the winter months, they give visiting birds a place to snuggle together for warmth away from the cold air.

A bench hook or a clamp can be used to secure wood before cutting it with a saw. It is easier to saw the wood if you make a couple of grooves in a downward motion before sawing back and forth.

The base is the key to a stable structure. The wider the base, the more stable the structure. Triangles can also make our structure stronger; when you push hard on a square, the whole thing collapses.

Shelter Purpose Structure a place giving a building or other the reason for which temporary protection object constructed from something is done or from bad weather or several parts created danger Design Specification a plan or drawing Product a detailed description produced to show the the result of an action of the design and look and function or materials used to or process workings of an item make something. before it is made Analyse Components examine (something) Modification a part or element of a methodically and in the action of modifying larger whole. detail, typically in especially a part of a something order to explain and machine or vehicle interpret it Evaluate Research

an investigation or study

to find out facts in

order to reach a

conclusion

Innovative

featuring new,

original ideas

Vocabulary

Quiz

1) What is a design criteria?

the process of

deciding if you've done

something the best

way and looking at

what can be improved

- 2) Tell me one way in which you could join materials?
- 3) What can be used to safely hold your wood in place?
- 4) What can be used to ensure the wood edges are smooth?
- 5) What does it mean to 'analyse' a design?
- 6) What are 'components'?

<u>Subject/Conceptual</u> <u>knowledge/skills:</u>

Computing - E-safety

LEAPS:

- I have developed an awareness of relevant e-safety issues such as cyber bullying, sexting, grooming, peer pressure, harassment and radicalisation.
- I understand my role in keeping myself and my peers safe (reporting)
- I understand how a good friend should behave online.

Core Knowledge

Cyberbullying is bullying that takes place over digital devices like mobile phones, computers, and tablets. Cyberbullying includes sending, posting, or sharing negative, harmful, false, or mean content about someone else. Some cyberbullying crosses the line into unlawful or criminal behaviour.

Key Vocabulary

E-safety, cyber bullying, sexting, grooming, peer pressure, harrassment, radicalisation,

Subject/Conceptual knowledge/skills: PE Football

LEAPS:

<u>Football</u>

I can set up a shooting opportunity for a teammate.

- I can restrict an opponent's space by defending with a partner.
- I can perform a penalty kick with power and accuracy.
- I can attack and shoot as a pair.
- I can perform the role of a cover defender to stop/slow the opposition's attack.
- I can use close control to keep possession of the ball under pressure.

Core Knowledge

A football match is played between two teams, each consisting of 11 players. The goal of the game is to score more goals than the opposing team. A goal is scored when the entire ball crosses the goal line between the goalposts.

Goalkeeper: The player who guards the goal and tries to prevent the opposing team from scoring.

Defenders: Players who defend their team's goal and try to stop the opposing team's attackers.

Midfielders: Positioned between defenders and forwards, they play a key role in both attacking and defending.

Forwards: Players who primarily focus on scoring goals.

Key Vocabulary

Control, change of direction, balance, inside pass, outside pass, accuracy, team work, resilience,

Subject/Conceptual knowledge/skills: RE

Christianity: Easter

LEAPS:

Personal Resonance and Reflection.

 $\Box I$ can explain how the influence people have had on me has affected what I see as important.

Knowledge and Understanding

□I can explain how one of the reasons people use to suggest that Christianity is a strong religion today can be counteracted.

Evaluation and Critical Thinking

 \Box I can give my opinion as to whether Christianity is a strong religion now and say why I think this.

Core Knowledge

Mother's Day began as a religious event in the 16th Century. "Mothering" related to the "Mother Church" the main church such as the cathedral. On the fourth Sunday of Lent, people would return to their mother church. People were typically given day off and would visit their families. At Harvest, Churches are decorated with fruit and vegetables and Christians give thanks to God for the crops. Items brought to the church are given to less fortunate people.

Icththys- Greek word (Fish Symbol): From the first century, Christians made an acrostic from this: Iesous Christos Theou Yios Soter (Jesus Christ, Son of God, Saviour). The fish, unlike the cross, attracted little suspicion making it perfect for persecuted Christians. When threatened by the Romans, Christians used this to mark meeting places.

Key Vocabulary:

Christianity: Easter. Festivals, Symbolism, Impact, Motivation, Mother's Day, Harvest, Ichthys.

Subject/Conceptual knowledge/skills: PSHE

PSHE: Rights and Respect

British Value - Individual Liberty

LEAPS:

- Define the terms 'fact', 'opinion', 'biased' and 'unbiased', explaining the difference between them.
- Describe the language and techniques that make up a biased report;
- · Know the legal age (and reason behind these) for having a social media account;
- Understand why people don't tell the truth and often post only the good bits about themselves, online;
- · Recognise that people's lives are much more balanced in real life, with positives and negatives
- Explain some benefits of saving money;
- Describe the different ways money can be saved, outlining the pros and cons of each method;
- Describe the costs that go into producing an item;
- Explain what is meant by the term interest.
- · Explain what is meant by living in an environmentally sustainable way;
- · Suggest actions that could be taken to live in a more environmentally sustainable way

Core Knowledge

A biased report is one that expresses a certain opinion or point of view and ignores or criticises the opposing view.

An unbiased report gives opposing points of view equal 'weight' without expressing a clear opinion, one way or another.

You must be 13 years old to have a social media account.

Often, people present a misleading representation of themselves online.

Saving money brings many advantages. It allows you to have financial independence, make important purchases, and plan for your future goals. Learning to save early helps build a strong foundation for responsible money management as you grow older.

Key Vocabulary

Bias, unbiassed, fact, opinion, stereotype, social media, profile, image, online safety, sharing, savings, bank account, interest, debit card, cash, value environmentally sustainable, composting, recycling, energy, materials, waste