



Staff Name:
Zone: Beekeeping
Ability Range: P7-NC3
Target Group: SEN

Date:
Lesson Reference:
 Week 6 'Making Honey Bee Products'

Learning Objectives:

- Develop the skills and knowledge necessary to make honey bee products (candle).

Learning Outcomes:

- To make a candle following the health and safety guidelines.

Challenge: Develop the confidence to use the necessary equipment.

Differentiation: Producing a finished candle; correctly completing the sequential order sheet; correctly identifying the benefits of using beeswax candles.

AFL: Refer to scheme of work.

Development of Skills/Cross Curricular Links:

LITERACY/COMMUNICATION

Reinforcement of key words, development of discussions through describing tasks and group activities.

ENTERPRISE

Communication, team work, using initiative.

PSHE

Development of environmental awareness.

STARTER ACTIVITY:

Discuss the students' knowledge of bee related products. Complete a 'Thought Shower' to develop and widen group knowledge of bee related products. (5mins)

MAIN PART OF LESSON:

Outline the process of candle making using beeswax. Highlight the associated health and safety issues.

Students to read the practical instruction handout (5mins).

Tutor to demonstrate the process, allowing the students to follow the handout (10mins).

Students to work in pairs to produce one candle each (20mins).

PLENARY:

Students to assist in ensuring the work area is tidy and safe.

Students to list the correct order in which to complete tasks to make the candle, using the handout provided.

Extension Tasks:

Students will record the benefits of using beeswax candles independently (from information supplied on the instruction sheet).

Risk Assessment:

Teacher in charge to ensure all correct and appropriate risk assessments are carried out to ensure the health and safety of all of the students.

Disclaimer

The template used to produce this document, is purely for guidance only and can be adapted to suit individual requirements/standards/establishments.

VISUAL	Demonstration of candle making.
AUDITORY	Direct teaching Explanation.
KINAESTHETIC	Practical candle making.
SKILLS	Development of skills and knowledge using the candle making equipment.
SEN	Ref. to statements. Behaviour/epilepsy plans.
REWARDS	Links to school reward system.

Lesson 6: Making Beeswax Candles

Beeswax is the ideal wax to use to make candles. It has a cleaner burning flame than the common paraffin and gel wax. This means that they produce less smoke whilst being more environmentally friendly. Beeswax candles do not drip as much as other candles, which means less chance of wax burns or unsightly wax marks on furniture. Another advantage of beeswax candles is that they last longer than a regular candle and are therefore more economical.



What You Will Need:

- Beeswax in solid or sheet form.
- Sharp knife.
- A hot plate and pan.
- Thermometer.
- Candle wicks.
- Small funnel.
- Candle dye, if wishing to produce coloured wax.
- Candle scents (optional).
- A wooden spoon.
- Fireproof candle holders.

Making the Candle

1. Cut the beeswax into small pieces and place into the pan. Set on a medium heat and check it does not start to burn.
2. When the wax begins to melt slowly stir it as this helps it to melt faster. Use your thermometer to check the temperature.



3. Once the wax is melted heat it until it reaches a minimum temperature of 77degrees Celsius (77°C). Do not allow it to reach more than 82degrees Celsius (88°C).
4. Add any colour if required. If you have liquid colour, follow the instructions and quickly stir with your spoon until the desired colour is achieved.
5. Add candle scents if required. Candle scents are usually highly concentrated, so follow the instructions carefully. Try using 30ml of scent per half kilo of beeswax to produce a light fragrance.
6. Place the wick in the holder. If you are using glass holders, pre heat the glass to about 65 degrees Celsius (65°C). This will reduce any air pockets that may form on the sides.



7. If the wick does not stay in position use a small amount of wax to hold it to the bottom of the holder.. Some wicks come with a small metal piece on the bottom to help them to remain upright.

8. Check the temperature of the wax has not dropped below 75 degrees Celsius (75°C). Carefully pour the wax into your candle holder using a small funnel.



9. Cut your wick down to suit the length of the candle holder.

10. Wait until the wax has cooled completely before burning.

Well done you've just made a beeswax candle!

Additional information

You can buy thin sheets of beeswax that can simply be rolled into candles, rather than melting wax. These are easier to make but burn down quicker and are much more expensive.

Only use the correct dyes for candles. Crayons or water based paint don't work. Only use correct candle scents. Perfume is dangerous and could ignite.

Never leave a burning candle unattended!